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## Litigation to Protect the Marine Environment: Parallels and Synergies with Climate Litigation

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# LITIGATION TO PROTECT THE MARINE ENVIRONMENT: PARALLELS AND SYNERGIES WITH CLIMATE LITIGATION

RANDALL S. ABATE,\* NADINE NADOW\*\* & HAYLEY-BO DORRIAN-BAK\*\*\*

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## INTRODUCTION

The world’s oceans are in crisis. Climate change impacts, biodiversity loss, plastic pollution, fisheries collapse, impacts to marine mammals, and vessel-based pollution are among the many threats the

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marine environment faces today.<sup>1</sup> Fish biomass is predicted to drop by 3% to 25% by the end of the century due to climate change.<sup>2</sup> Worse still, the amount of plastic in the world's aquatic ecosystems is on track to hit 23 to 37 million tons per year by 2040.<sup>3</sup>

Representing approximately 70% of the Earth's surface,<sup>4</sup> oceans are both economic engines and havens for biodiversity.<sup>5</sup> Oceans provide many benefits, including supporting the global food supply and tourism industry.<sup>6</sup> Yet economic exploitation of the world's oceans is accelerating

<sup>1</sup> See, e.g., Boris Worm, Edward B. Barbier, Nicola Beaumont, J. Emmett Duffy, Carl Folke, Benjamin S. Halpern, Jeremy B.C. Jackson, Heike K. Lotze, Fiorenza Micheli, Stephen R. Palumbi, Enric Sala, Kimberley A. Selkoe, John J. Stachowicz & Reg Watson, *Impacts of Biodiversity Loss on Ocean Ecosystem Services*, 314 *SCIENCE* 787, 787, 790 (2006); Josie Garthwaite, *Stanford Study Finds Climate Warnings in Ancient Seas*, *STAN. NEWS* (May 7, 2021), <https://news.stanford.edu/2021/05/07/biodiversity-loss-warming-oceans/> [<https://perma.cc/CQM5-V8KB>]; Chhaya Chaudhary, Anthony J. Richardson, David S. Schoeman & Mark J. Costello, *Global Warming Is Causing a More Pronounced Dip in Marine Species Richness Around the Equator*, 118 *PROC. NAT'L ACAD. SCIS.*, Apr. 2021, at 1, 1–2; *How Is Climate Change Impacting the World's Ocean*, U.N. CLIMATE ACTION, <https://www.un.org/en/climatechange/science/climate-issues/ocean-impacts> [<https://perma.cc/E2QD-Q46C>] (last visited Apr. 12, 2023); *Ocean Pollution and Maritime Debris*, NOAA, <https://www.noaa.gov/education/resource-collections/ocean-coasts/ocean-pollution> [<https://perma.cc/A6RA-N9VG>] (Apr. 1, 2020); Éva Plagányi, *Climate Change Impacts on Fisheries*, 363 *SCIENCE* 930, 930–31 (2019); *Our Planet Is Choking on Plastic*, U.N. ENV'T PROGRAMME, <https://www.unep.org/interactives/beat-plastic-pollution/> [<https://perma.cc/E3DY-92Q5>] (last visited Apr. 12, 2023); Lauren Kubiak, *Marine Biodiversity in Dangerous Decline, Finds New Report*, *NAT. RES. DEF. COUNCIL* (May 6, 2019), <https://www.nrdc.org/experts/lauren-kubiak/marine-biodiversity-dangerous-decline-finds-new-report> [<https://perma.cc/R4EU-43SH>].

<sup>2</sup> Kubiak, *supra* note 1.

<sup>3</sup> *Our Planet Is Choking on Plastic*, *supra* note 1.

<sup>4</sup> See *How Much Water Is There on Earth?*, USGS WATER SCI. SCH. (Nov. 13, 2019), <https://www.usgs.gov/special-topics/water-science-school/science/how-much-water-there-earth?> [<https://perma.cc/KUR5-QYSU>]; *How Much Water Is in The Ocean?*, NOAA NAT'L OCEAN SERV., <https://oceanservice.noaa.gov/facts/oceanwater.html> [<https://perma.cc/GN6N-86KT>] (Jan. 20, 2023).

<sup>5</sup> See, e.g., *Biodiversity: The Ocean's Role*, U.N. DEP'T OF ECON. & SOC. AFFS. (Sept. 30, 2020, 8:00 AM), <https://sdgs.un.org/events/biodiversity-oceans-role-24649> [<https://perma.cc/5ETV-4XVT>]; see also Linwood Pendleton, Karen Evans & Martin Visbeck, *We Need a Global Movement to Transform Ocean Science for a Better World*, 117 *PROC. NAT'L ACAD. SCIS.* 9652, 9652 (2020).

<sup>6</sup> Christopher Costello, Ling Cao, Stefan Gelcich, Miguel Á. Cisneros-Mata, Christopher M. Free, Halley E. Froehlich, Christopher D. Golden, Gakushi Ishimura, Jason Maier, Ilan Macadam-Somer, Tracey Mangin, Michael C. Melnychuk, Masanori Miyahara, Carryn L. de Moor, Rosamond Naylor, Linda Nøstbakken, Elena Ojea, Erin O'Reilly, Ana M. Parma, Andrew J. Plantinga, Shakuntala H. Thilsted & Jane Lubchenco, *The Future of Food from the Sea*, 588 *NATURE* 95, 95 (2020) (asserting that food from the sea accounts for roughly 17% of the production of meat); see also Rob Brumbaugh & Pawan

the loss of these valuable services.<sup>7</sup> The reverse is also true: the decline in global fisheries and coral reef systems is accelerating the global economic crisis.<sup>8</sup> Worse still, these depleted marine ecosystems are more vulnerable to the increasing onslaught of climate change impacts to the marine environment such as sea level rise, ocean warming, ocean acidification, and marine invasive species.<sup>9</sup>

These adverse impacts also raise equity concerns for small-scale fishing communities and vulnerable coastal communities who bear a disproportionate burden from climate change impacts to the marine environment.<sup>10</sup> Economic and technological ingenuity caused many of

Patil, *Sustainable Tourism Can Drive the Blue Economy: Investing in Ocean Health Is Synonymous With Generating Ocean Wealth*, WORLD BANK BLOGS (May 22, 2017), <https://blogs.worldbank.org/voices/Sustainable-Tourism-Can-Drive-the-Blue-Economy> [<https://perma.cc/U325-9TEV>] (suggesting that coastal and marine tourism may be “the largest value-adding segment of the ocean economy by 2030, at 26%”); *Tourism and Recreation*, NOAA OFF. FOR COASTAL MGMT., <https://coast.noaa.gov/states/fast-facts/tourism-and-recreation.html> [<https://perma.cc/27AS-FZJ8>] (last visited Apr. 12, 2023) (explaining that ocean-based tourism and recreation account for about \$143 billion of U.S. gross domestic product each year).

<sup>7</sup> See *Ocean Economy and Developing Countries*, ORG. FOR ECON. COOP. & DEV., <https://www.oecd.org/ocean/topics/developing-countries-and-the-ocean-economy/> [<https://perma.cc/2URT-RBUH>] (last visited Apr. 12, 2023); see also *Failing Fisheries and Poor Ocean Health Starving Human Food Supply—Tide Must Turn*, WORLD WILDLIFE FUND (Sept. 16, 2015), [https://wwf.panda.org/wwf\\_news/?252532](https://wwf.panda.org/wwf_news/?252532) [<https://perma.cc/UH6U-5AGR>].

<sup>8</sup> See KJELLRUN HIIS HAUGE, BELINDA CLEELAND & DOUGLAS CLYDE WILSON, INT’L RISK GOVERNANCE COUNCIL, *FISHERIES DEPLETION AND COLLAPSE 2* (2009), [https://irgc.org/wp-content/uploads/2018/09/Fisheries\\_Depletion\\_full\\_case\\_study\\_web.pdf](https://irgc.org/wp-content/uploads/2018/09/Fisheries_Depletion_full_case_study_web.pdf) [<https://perma.cc/MZQ6-KVAC>]; see also Lydia C.L. Teh, Louise S.L. Teh, Ben Starkhouse & U. Rashid Sumaila, *An Overview of Socio-Economic and Ecological Perspectives of Fiji’s Inshore Reef Fisheries*, 33 *MARINE POL’Y* 807, 807 (2009).

<sup>9</sup> See INVASIVE SPECIES ADVISORY COMM., U.S. DEP’T OF THE INTERIOR, *MARINE BIOINVASIONS AND CLIMATE CHANGE 1* (2010); Cascade J.B. Sorte, Susan L. Williams & Robyn A. Zerebecki, *Ocean Warming Increases Threat of Invasive Species in a Marine Fouling Community*, 91 *ECOLOGY* 2198, 2199 (2010).

<sup>10</sup> See Laura E. Koehn, Laura K. Nelson, Jameal F. Samhoury, Karma C. Norman, Michael G. Jacox, Alison C. Cullen, Jerome Fiechter, Mercedes Pozo Buil & Phillip S. Levin, *Social-Ecological Vulnerability of Fishing Communities to Climate Change: A U.S. West Coast Case Study*, *PLOS ONE*, Aug. 17, 2022, at 1, 1–2; Philip J. Landrigan, John J. Stegeman, Lora E. Fleming, Denis Allemand, Donald M. Anderson, Lorraine C. Backer, Françoise Brucker-Davis, Nicolas Chevalier, Lilian Corra, Dorota Czerucka, Marie-Yasmine Dechraoui Bottein, Barbara Demeneix, Michael Depledge, Dimitri D. Deheyn, Charles J. Dorman, Patrick Fénelon, Samantha Fisher, Françoise Gaill, François Galgani, William H. Gaze, Laura Giuliano, Philippe Grandjean, Mark E. Hahn, Amro Hamdoun, Philipp Hess, Bret Judson, Amalia Laborde, Jacqueline McGlade, Jenna Mu, Adetoun Mustapha, Maria Neira, Rachel T. Noble, Maria Luiza Pedrotti, Christopher

these threats to the marine environment and that same ingenuity is already being implemented to respond to these threats.<sup>11</sup> Biodegradable plastics<sup>12</sup> and seaweed aquaculture<sup>13</sup> are two examples of how the harmful status quo can be reversed by funding a massive investment in these marine environment-friendly solutions.

This Article reviews recent successes and obstacles in using litigation as a tool to address these concerns across several contexts in the marine environment. It surveys developments at the international, national, and subnational levels. The Article offers lessons from creative climate litigation strategies as a way to enhance litigation to protect the marine environment. It also recommends ways in which the ocean-climate nexus can provide mutual benefits in advancing the agendas of climate change regulation and ocean stewardship.

## I. ENDANGERED SPECIES AND MARINE MAMMAL PROTECTION

Federal environmental law and policy exploded in the 1970s with the enactment of several statutes designed to regulate a wide range of sources of adverse environmental impacts. Two statutes from this era that apply to protecting marine species are the Endangered Species Act (“ESA”)<sup>14</sup> and the Marine Mammal Protection Act (“MMPA”).<sup>15</sup>

Marine mammals face multiple threats to their ecosystems, habitats, and individual biology. Although marine mammal extinctions

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Reddy, Joacim Rocklöv, Ursula M. Scharler, Hariharan Shanmugam, Gabriella Taghian, Jeroen A. J. M. van de Water, Luigi Vezzulli, Pál Weihe, Ariana Zeka, Hervé Raps & Patrick Ramp, *Human Health and Ocean Pollution*, 86 ANNALS GLOB. HEALTH, no. 1, Dec. 3, 2020, at 1, 1–2, 27, 29; Edward H. Allison, Allison L. Perry, Marie-Caroline Badjeck, W. Neil Adger, Katrina Brown, Declan Conway, Ashley S. Halls, Graham M. Pilling, John D. Reynolds, Neil L. Andrew & Nicholas K. Dulvy, *Vulnerability of National Economies to the Impacts of Climate Change on Fisheries*, 10 FISH & FISHERIES 173, 174, 176 (2009); Nathan J. Bennett, Juan José Alava, Caroline E. Ferguson, Jessica Blythe, Elisa Morgera, David Boyd & Isabelle M. Côté, *Environmental Justice in the Ocean* 2, 4 (Univ. B.C. Inst. for the Oceans & Fisheries, Working Paper No. 03, 2022).

<sup>11</sup> See ORG. FOR ECON. COOP. & DEV., *Science and Technology Enabling Economic Growth and Ecosystems Preservation*, in RETHINKING INNOVATION FOR A SUSTAINABLE OCEAN ECONOMY 43, 44, 49 (2006).

<sup>12</sup> See Jan-Georg Rosenboom, Robert Langer & Giovanni Traverso, *Bioplastics for a Circular Economy*, 7 NATURE REV. MATERIALS 117, 132 (2022).

<sup>13</sup> See *Seaweed Aquaculture*, NOAA FISHERIES, <https://www.fisheries.noaa.gov/national/aquaculture/seaweed-aquaculture> [<https://perma.cc/QB9M-79DP>] (Sept. 28, 2020).

<sup>14</sup> 16 U.S.C. §§ 1531–1544 (2018).

<sup>15</sup> *Id.* §§ 1361–1407.

related to climate change are rare, increases in ocean temperatures may lead to various reproductive consequences for marine mammals and can affect marine mammals' ability to survive in their environment.<sup>16</sup> The International Union for the Conservation of Nature classified approximately 37% of marine mammals as endangered.<sup>17</sup> Federal regulation is the most impactful way to address protection of marine mammals, though protection also can be implemented at international, regional, state, or local levels of regulation.

This Part addresses some highlights of recent litigation that seeks to protect marine mammals and marine endangered species under the ESA and the MMPA. It also considers the relationship between climate change and efforts to protect marine mammals and marine endangered species under these statutes.

#### A. *Litigation to Protect Marine Mammals*

The ESA is the strongest U.S. federal statute protecting marine mammals. The ESA was enacted to prioritize imperiled species and to help them recover from threatened or endangered status until their federal protection is no longer needed.<sup>18</sup> To accomplish this goal, the ESA prohibits the “taking” of an endangered species.<sup>19</sup>

The ESA was enacted to prevent the extinction of fish, wildlife, and plant species, but its protections apply only when a species is listed as “threatened”<sup>20</sup> or “endangered.”<sup>21</sup> In other words, the ESA only recognizes

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<sup>16</sup> Camille Albouy, Valentine Delattre, Giulia Donati, Thomas L. Frölicher, Severine Albouy-Boyer, Marta Rufino, Loïc Pellissier, David Mouillot & Fabien Leprieur, *Global Vulnerability of Marine Mammals to Global Warming*, 10 SCI. REPS., Jan. 17, 2020, at 1, 1–2.

<sup>17</sup> *Id.* at 2.

<sup>18</sup> See *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174 (1978).

<sup>19</sup> 16 U.S.C. § 1538(a)(1)(B), (C); 16 U.S.C. § 1532(19) (defining “take” to mean when an endangered animal is “harass[ed], harm[ed], pursue[d], hunt[ed], [shot], wound[ed], kill[ed], trap[ped], capture[d], or collect[ed], or [when one] attempt[s] to engage in any such conduct”).

<sup>20</sup> 16 U.S.C. § 1532(20) (defining a “threatened species” as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range”).

<sup>21</sup> An “endangered species” is defined as “any species which is in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). “Foreseeable future” means “the period through which [the agency] can reliably determine the threats to a species and the likely consequences.” *Ctr. for Biological Diversity v. Haaland*, 998 F.3d 1061, 1063 (9th Cir. 2021); Memorandum from Off. of the Solic., U.S. Dep’t of the

a species' value when it is in danger of being lost.<sup>22</sup> In addition to robust protections for listed species, the ESA also protects critical habitat on which listed species rely.<sup>23</sup> The scope of critical habitat protection has been the subject of litigation for decades, with a recent focus on how climate change affects the definition of critical habitat.<sup>24</sup>

The ESA requires the Secretary of Interior to make listing determinations “solely on the basis of the best scientific and commercial data available.”<sup>25</sup> “To comply with the ESA’s ‘best available science’ standard, the agency ‘cannot ignore available biological information [or] studies, even if it disagrees with or discredits them.’”<sup>26</sup> In making its listing decision, the agency must “thoroughly evaluate[] and incorporate[] the data” from contrary studies.<sup>27</sup> The ESA does not require that the data be conclusive,<sup>28</sup> and “[e]ven if the available scientific and commercial data were quite inconclusive, [the Secretary] may—indeed must—still rely on it.”<sup>29</sup> To the extent there are uncertainties, the agency must “explain why the uncertainty . . . favors not listing” the species.<sup>30</sup> The regulatory mechanisms include federal, state, and local protections.<sup>31</sup>

When an agency is authorizing actions that may affect listed endangered species or critical habitat of a marine species, it must consult with the National Marine Fisheries Service (“NMFS”), which is the agency responsible for administering and enforcing the ESA with regard

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Interior on the Meaning of “Foreseeable Future” in section 3(20) of the Endangered Species Act to the Acting Dir., U.S. Fish & Wildlife Serv. 13 (Jan. 16, 2009) [hereinafter Memorandum on the Meaning of “Foreseeable Future”].

<sup>22</sup> See 16 U.S.C. § 1532(6); see also Memorandum on the Meaning of “Foreseeable Future”, *supra* note 21, at 1.

<sup>23</sup> 16 U.S.C. § 1532(5)(A)–(C).

<sup>24</sup> For analysis of the impacts of climate change on defining critical habitat under the ESA, see *Weyerhaeuser Co. v. U.S. Fish & Wildlife Serv.*, 139 S. Ct. 361, 364–65, 368–69 (2018); see also Kennedy Fichtel, *The Key Deer Is Headed for Extinction: How Repealing a Trump-Era Federal Rule Defining “Habitat” Could Allow Assisted Migration to Save Species Threatened by Climate Change*, 34 ST. THOMAS L. REV. 109, 111, 115, 128, 131, 135 (2022).

<sup>25</sup> 16 U.S.C. § 1533(b)(1)(A); see also 50 C.F.R. § 424.11(c).

<sup>26</sup> *WildEarth Guardians v. Haaland*, 561 F. Supp. 3d 890, 899 (C.D. Cal. 2021) (citing *Ctr. for Biological Diversity v. Zinke*, 900 F.3d 1053, 1060 (9th Cir. 2018) (quoting *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014))).

<sup>27</sup> *Kern Cnty. Farm Bureau v. Allen*, 450 F.3d 1072, 1081 (9th Cir. 2006).

<sup>28</sup> *Alaska Oil & Gas Ass’n v. Pritzker*, 840 F.3d 671, 680 (9th Cir. 2016).

<sup>29</sup> *Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60 (D.C. Cir. 2000) (quoting *City of Las Vegas v. Lujan*, 891 F.2d 927, 933 (D.C. Cir. 1989)).

<sup>30</sup> See *Ctr. for Biological Diversity*, 900 F.3d at 1073.

<sup>31</sup> *WildEarth Guardians*, 561 F. Supp. 3d at 905.

to marine species.<sup>32</sup> NMFS's conclusions must be based on evidence supported by the best scientific and commercial data available.<sup>33</sup> Re-initiation of consultation is required if new information reveals that the action may affect the listed endangered species or its habitat in a manner or to an extent not previously considered.<sup>34</sup>

Despite its laudable intentions, the ESA has fallen short in many instances to protect listed marine species when agency actions are challenged. Occasionally, agencies reevaluate regulations that have resulted in harm, rather than benefits, in certain marine environments.<sup>35</sup> In 1986, the U.S. Fish and Wildlife Service ("FWS") established a program called "No Otter Zone" to protect threatened California sea otter species under the ESA.<sup>36</sup> In 2015, the agency determined that the sea otter relocation zone program was harming the sea otters' ability to expand their natural, historical range to secure recovery of the species, and, therefore, decided to end the program.<sup>37</sup> The fishing industry filed the *California Sea Urchin Commission v. Bean* case to compel the agency to re-establish the No Otter Zone.<sup>38</sup> However, in 2018, the U.S. Court of Appeals for the Ninth Circuit concluded that the agency actions were lawful and that the agency has the authority to terminate programs that are counterproductive, are no longer consistent with the statutes, or when the goals have been achieved.<sup>39</sup>

In response to Congress's concern regarding "the maintenance of healthy populations of all species of marine mammals within the ecosystems they inhabit,"<sup>40</sup> the MMPA established a moratorium on the taking of marine mammals.<sup>41</sup> A "taking" means to "harass, hunt, capture, or kill . . . any marine mammal."<sup>42</sup> The MMPA also regulates incidental takes of marine mammals.<sup>43</sup> The *Sovereign Iñupiat for a Living Arctic v. Bureau*

<sup>32</sup> 50 C.F.R. § 402.14(a), (g); *Cook Inletkeeper v. Raimondo*, 533 F. Supp. 3d 745, 762 (D. Alaska 2021).

<sup>33</sup> 16 U.S.C. § 1536(a)(2).

<sup>34</sup> *Cook Inletkeeper*, 533 F. Supp. 3d at 762 (citing 50 C.F.R. § 402.16(a)(2)).

<sup>35</sup> See *infra* notes 36–39 and accompanying text.

<sup>36</sup> *California Sea Urchin Comm'n v. Bean*, 883 F.3d 1173, 1177–79 (9th Cir. 2018); see also *Supreme Court Halts Effort to Reinstate Failed "No Otter Zone" in California*, EARTHJUSTICE (Oct. 29, 2018), <https://earthjustice.org/news/press/2018/supreme-court-halts-effort-to-reinstate-failed-no-otter-zone-in-california> [<https://perma.cc/55HG-8NSR>].

<sup>37</sup> *California Sea Urchin Comm'n*, 883 F.3d at 1179.

<sup>38</sup> *Id.* at 1177, 1182, 1184–85.

<sup>39</sup> *Id.* at 1183, 1185.

<sup>40</sup> *Kokechik Fishermen's Ass'n v. Sec'y of Com.*, 839 F.2d 795, 801 (D.C. Cir. 1988).

<sup>41</sup> 16 U.S.C. § 1362(13).

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* § 1371(a)(2).



of *Land Management* case clarifies that when “the agency authorizes the incidental taking of a species, it must also issue an incidental take statement (ITS).”<sup>44</sup> The court determined that any project’s ITS needs to provide an estimate of the amount of incidental take and include any “reasonable and prudent measures’ considered ‘necessary or appropriate to minimize such impact’ on the listed species.”<sup>45</sup> The ITS’s purpose is to identify the amount of take that may occur, include triggers that indicate non-compliance, and require reconsultation with the FWS.<sup>46</sup> In all cases involving marine mammals, the ITS needs to describe specific measures necessary to comply with the MMPA.<sup>47</sup>

Other courts have found that MMPA protections must yield to military readiness objectives.<sup>48</sup> For example, the Ninth Circuit addressed a common mitigation measure needed to reduce the impact of harm on marine mammals.<sup>49</sup> In the context of the MMPA, the Ninth Circuit explained that “military readiness activities on marine mammals must be both effective in reducing the impact, but also not so restrictive of military activity as to unduly interfere with the government’s legitimate needs for military readiness activities.”<sup>50</sup> “While the MMPA provides factors that should be considered when determining the ‘least practicable impact’ in the context of a military readiness activity, it does not do so for other contexts.”<sup>51</sup>

### B. *The Intersection of Climate Change and Marine Species Protection*

Environmental organizations have filed many suits seeking to protect threatened and endangered species from the impacts of climate change.<sup>52</sup> Through the study of marine mammal habitat, scientists have

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<sup>44</sup> 555 F. Supp. 3d 739, 795 (D. Alaska 2021).

<sup>45</sup> *Id.* (internal quotes omitted).

<sup>46</sup> *Id.* at 795–96.

<sup>47</sup> *Id.* at 795.

<sup>48</sup> *See, e.g.,* Cook Inletkeeper v. Raimondo, 533 F. Supp. 3d 745, 759 (D. Alaska 2021).

<sup>49</sup> *Id.* at 748.

<sup>50</sup> *Id.* at 759 (quoting Nat. Res. Def. Council v. Pritzker, 828 F.3d 1125, 1134 (9th Cir. 2016)).

<sup>51</sup> *Id.* (citing 16 U.S.C. § 1371(a)(5)(A)(iii)).

<sup>52</sup> *See U.S. Climate Change Litigation: Federal Statutory Claims—Endangered Species Act and Other Wildlife Protection Statutes*, SABIN CTR. FOR CLIMATE CHANGE L., <http://climatecasechart.com/case-category/endangered-species-act-and-other-wildlife-protection-statutes/> [https://perma.cc/U2FQ-Y2K4] (last visited Apr. 12, 2023).

discovered that the changing climate has direct impacts on habitat ecosystems including changes in water temperatures, increases in algal bloom threats, and decreased feeding grounds.<sup>53</sup> Specifically, the global rise in temperature and the increased atmospheric carbon dioxide level result in physical changes in the oceans, abiotic/biotic consequences, changes in species abundance, and species-specific impacts.<sup>54</sup> To address these issues, lawsuits seek to uphold a range of values including promoting sustainable populations of species so they can be harvested, protecting endangered species, maintaining respect for indigenous communities' practices, advancing equity-driven interests of the fishing community in the oceans and in oil and gas development, and protecting marine mammals and their habitats.<sup>55</sup>

In *Cook Inletkeeper*, the defendants asserted that NMFS adequately evaluated the cumulative environmental impacts on Cook Inlet belugas by considering

“the subsistence hunting of beluga[s] by Alaska Native communities and the current long-term harvest limits based on population density” . . . ; the status of “beluga whales as an ESA-listed species for which permits will be issued to study in the future”; “the impact climate change may have on belugas” feeding and prey;

and marine mammals impacts including “the impact of acoustic sources from vessel traffic throughout Cook Inlet.”<sup>56</sup> The court held that NMFS

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<sup>53</sup> Bradley Varner, *Reviewing The Marine Mammal Protection Act Through a Modern Lens*, ANIMAL LEGAL & HIST. CTR. (2022), <https://www.animallaw.info/article/reviewing-marine-mammal-protection-act-through-modern-lens> [<https://perma.cc/HL9P-FWQ8>].

<sup>54</sup> *Id.* (citing Frances M.D. Gulland, Jason D. Baker, Marian Howe, Erin LaBrecque, Lauri Leach, Sue E. Moore, Randall R. Reeves & Peter O. Thomas, *A Review of Climate Change Effects on Marine Mammals in United States Waters: Past Predictions, Observed Impacts, Current Research and Conservation Imperatives*, CLIMATE CHANGE ECOLOGY, Dec. 2022, at 1, 4).

<sup>55</sup> Press Release, Julia Brownley, Brownley Introduces Bill to Protect Marine Mammals from the Climate Crisis (June 4, 2021), <https://juliabrownley.house.gov/brownley-introduces-bill-to-protect-marine-mammals-from-the-climate-crisis/> [<https://perma.cc/6R2W-ZN47>]. The Act seeks to amend the MMPA to direct NOAA to develop climate impact management plans for marine mammals that are at significant risk due to climate change. *Id.*

<sup>56</sup> *Cook Inletkeeper*, 533 F. Supp. 3d at 768–69 (quoting Federal Defendants' Opposition to Plaintiffs' Motion for Summary Judgment at 41–42, *Cook Inletkeeper*, 533 F. Supp. 3d 739 (No. 3:19-cv-00238-SLG)).

failed to adequately support in its record that noise from tugs towing a drill rig causes a taking based on the harassment of the Cook Inlet beluga whales.<sup>57</sup> Therefore, under the MMPA, the court determined NMFS acted arbitrarily and capriciously.<sup>58</sup>

In *Sovereign Iñupiat*, the plaintiffs each asserted that the Bureau of Land Management (“BLM”) failed to adequately analyze the effects of an offshore oil and gas development project’s (known as the Liberty Project) downstream greenhouse gas emissions in its alternatives analysis.<sup>59</sup> The plaintiffs cited a past case, *Center for Biological Diversity v. Bernhardt* (known as “*Liberty*”), where the Ninth Circuit rejected a Bureau of Ocean Energy Management (“BOEM”) environmental impact statement (“EIS”) evaluating the Liberty Project because the agency failed to properly assess downstream greenhouse gas emissions that would result from consuming oil abroad.<sup>60</sup> In *Sovereign Iñupiat*, the plaintiffs contended that BLM “‘used the same [emissions] modeling approach for [the development plan]’ and relied on the ‘same core rationale and record’ as BOEM” did in *Liberty*.<sup>61</sup> The court ruled in favor of the plaintiffs because BLM’s ITS lacked current sufficient mitigation measures for polar bears and, therefore, was not in accordance with the law.<sup>62</sup> Under the ESA, BLM has the responsibility to ensure that its actions are not likely to jeopardize the existence of any listed species or destroy critical habitat.<sup>63</sup> The court concluded that because portions of the FWS’s biological opinion were invalid, BLM’s reliance on it was unlawful.<sup>64</sup>

In *WildEarth Guardians v. Haaland*, the court determined that there are relevant climate change impact questions that pertain to ESA implementation.<sup>65</sup> The plaintiff petitioned FWS to consider whether the environment is adversely affected by climate change, if it was justified to warrant listing the Joshua tree as threatened, and whether the conclusion

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<sup>57</sup> *Id.* at 759, 770.

<sup>58</sup> *Id.*

<sup>59</sup> 555 F. Supp. 3d 739, 762 (D. Alaska 2021); *see also* Ctr. for Biological Diversity v. Bernhardt, 982 F.3d 723, 731–32 (9th Cir. 2020).

<sup>60</sup> *See Sovereign Iñupiat*, 555 F. Supp. 3d at 762; *Ctr. for Biological Diversity*, 982 F.3d at 724, 751.

<sup>61</sup> *Sovereign Iñupiat*, 555 F. Supp. 3d at 762 (quoting Plaintiff’s Principal Brief Under Local Rule 16.3(c)(1) at 28, *Sovereign Iñupiat*, 555 F. Supp. 3d 739 (3:20-cv-00308-SLG)).

<sup>62</sup> *Id.* at 804.

<sup>63</sup> 16 U.S.C. § 1536(a)(2).

<sup>64</sup> *Sovereign Iñupiat*, 555 F. Supp. 3d at 804–05.

<sup>65</sup> 561 F. Supp. 3d 890, 900–01 (C.D. Cal. 2021).

is aligned with or contrary to the best available science.<sup>66</sup> The court held that the FWS's decision not to list the Joshua tree as threatened under the ESA was arbitrary and capricious and contrary to relevant science.<sup>67</sup>

The court reasoned that science can predict how climate change will cause substantial, widespread losses of suitable habitat for various environments and will show what is lost, by how much, and when.<sup>68</sup> It further stated agencies need to ensure that the Species Distribution Model and other best available science and commercial data are reviewed to focus on specific portions of the area and identify areas not amenable to reliable extrapolation for the whole area.<sup>69</sup> Agencies also need to consider whether such information should be based on short-term or long-term demographic monitoring and whether the monitoring captures species' needs for a long-term time frame.<sup>70</sup> Finally, the court concluded that the agency should determine if there are any mitigation activities that are reducing or increasing the impact to a species' habitat that is currently suitable based on existing climate conditions.<sup>71</sup>

## II. FISHERIES MANAGEMENT

Sustainable practices and fishing quotas have become critically important in the fishing industry to ensure that marine ecosystems are not damaged beyond repair. As climate change impacts continue to affect marine habitats, litigation pertaining to the implementation of maximum sustainable yield is of particular importance. Stringent measures will ensure that fishing activities do not exacerbate already-depleted fish stocks.

NMFS has been sued frequently regarding its management of allocation of quotas.<sup>72</sup> Challenges have asserted that NMFS has enabled overfishing of species and created regulatory takings.<sup>73</sup> As climate change impacts in the ocean increase, NMFS will likely face continued lawsuits alleging inequitable allocation of diminishing fish stocks and high fishing quotas that conflict with marine science research on sustainable yield.

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<sup>66</sup> *Id.*

<sup>67</sup> *Id.* at 901.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> *Id.* at 900.

<sup>71</sup> *WildEarth Guardians*, 561 F. Supp. 3d at 904–05.

<sup>72</sup> Suzanne Iudicello & Sherry Bosse Lueders, *A Survey of Litigation over Catch Shares and Groundfish Management in the Pacific Coast and Northeast Multispecies Fisheries*, 46 ENV'T L. 157, 159–60 (2016).

<sup>73</sup> *Id.* at 161.

In *Oceana, Inc. v. Wilbur Ross*, Oceana and Earthjustice sued NMFS in July 2017, arguing that the agency had set the anchovy catch limit much higher than it should have been set in October 2016.<sup>74</sup> NMFS set the catch limit at 25,000 metric tons annually when best available science supported that the total biomass of the population was 15,000 to 32,000 metric tons.<sup>75</sup> The court ruled in favor of Oceana and Earthjustice, reasoning that NMFS had failed to discredit the plaintiffs' evidence, which had been peer-reviewed by a former NMFS employee to confirm that the high catch quota does not prevent overfishing.<sup>76</sup>

In February 2020, the Wild Fish Conservancy and other environmental protection organizations filed a lawsuit against the Washington Department for Fish and Wildlife ("WDFW") for violating state law when the WDFW approved a proposal by Cooke Aquaculture Pacific, LLC on the transition from farming Atlantic salmon to steelhead trout without a thorough EIS.<sup>77</sup> The court upheld the approval of Cooke's steelhead

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<sup>74</sup> *Oceana v. Ross*, No. 16-CV-06784-LHK, 2018 WL 1989575, at \*2–4 (N.D. Cal. Jan. 18, 2018); *Oceana Wins Lawsuit Against Feds over Anchovy Quota*, SAVING SEAFOOD (Jan. 22, 2018), <https://www.savingseafood.org/news/law/oceana-wins-lawsuit-feds-anchovy-quota/> [<https://perma.cc/3EQV-3K2F>].

<sup>75</sup> *Oceana Wins Lawsuit Against Feds over Anchovy Quota*, *supra* note 74.

<sup>76</sup> *Oceana*, 2018 WL 1989575, at \*11–12. Despite the ruling in favor of Oceana and Earthjustice in 2018, Oceana filed two lawsuits in 2019 and 2021 for similar grievances. Complaint for Declaratory and Injunctive Relief at \*1, *Oceana v. Ross*, No. 5:19-cv-03809, 2019 WL 2745503 (N.D. Cal. June 28, 2019); Complaint for Declaratory and Injunctive Relief at \*1, *Oceana v. Coggins*, No. 5:21-cv-00736, 2021 WL 325701 (N.D. Cal. Jan. 29, 2021). The 2019 complaint also contended that the overfishing limit based on best available science was not met for anchovies and violated the Magnuson-Stevens Fishery Conservation and Management Act, which states that "[c]onservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery." Complaint for Declaratory and Injunctive Relief at \*24, *Oceana v. Ross*, No. 5:19-cv-03809, 2019 WL 2745503 (N.D. Cal. June 28, 2019) (quoting 16 U.S.C. § 1851(a)(1)). The 2021 complaint similarly asserted that the 2020 catch rules failed to base annual catch limit, acceptable biological catch, and overfishing limit on best available science and fails to prevent overfishing. Complaint for Declaratory and Injunctive Relief at \*1, *Oceana v. Coggins*, No. 5:21-cv-00736, 2021 WL 325701 (N.D. Cal. Jan. 29, 2021). The plaintiffs seek to have NMFS refrain from relying on outdated science and setting the catch limit for an indefinite period of time without a mechanism to respond to changes in anchovy abundance. See Andrea Treece, Geoff Shester & Ashley Blacow-Draeger, *Earthjustice Files New Legal Actions to Protect Anchovy and Ocean Wildlife as Fisheries Service Again Ignores Court Order*, EARTHJUSTICE (Feb. 2, 2021), <https://earthjustice.org/news/press/2021/earthjustice-files-new-legal-actions-to-protect-anchovy-ocean-wildlife-as-fisheries-service-again-ignores-court> [<https://perma.cc/X2CE-94NB>].

<sup>77</sup> *Washington Supreme Court Agrees to Hear Case that Could Reverse Approval of Cooke's Steelhead Proposal*, OUR SOUND, OUR SALMON (Apr. 7, 2021), <https://www.oursound-our>

proposal, holding that the court had properly deferred to the agency's expertise in reaching its decision.<sup>78</sup>

The plaintiffs appealed to the Washington Supreme Court.<sup>79</sup> They alleged that the WDFW failed to consider alternatives analysis to inform its decision-making as required by the State Environmental Policy Act ("SEPA") and also failed to properly consider adverse impacts to the environment.<sup>80</sup> They argued that Cooke and the WDFW should have analyzed the impacts to the site based on a "no action" baseline instead of the areas' use for Atlantic salmon farming.<sup>81</sup> The Washington Supreme Court ruled in favor of Cooke and the WDFW in January 2022, holding that the steelhead permit application did not violate SEPA.<sup>82</sup> The Court held that "an agency must analyze a proposal's impacts against the impact of existing uses of the affected area," and as such, the established baseline on the current Atlantic salmon farming was appropriate.<sup>83</sup>

The Center for Food Safety ("CFS") filed a Freedom of Information Act ("FOIA") lawsuit in July 2022 against the U.S. Army Corps of Engineers ("USACE") for withholding records regarding the approval of the nationwide permit 56 ("NWP 56").<sup>84</sup> This allowed for the placement of finfish

salmon.org/news/2021/4/7/washington-supreme-court-agrees-to-hear-case-that-could-reverse-approval-of-cookes-steelhead-proposal-ignoring-requests-by-thenbspstate-and-cooke-aquaculture-to-reject-the-case [https://perma.cc/7F3C-UFL7].

<sup>78</sup> *Id.*

<sup>79</sup> *Environmental Groups Appeal Approval of Cooke's New Net Pen Project to Washington's Supreme Court*, OUR SOUND, OUR SALMON (Nov. 23, 2020), <https://www.oursound-our-salmon.org/news/2020/11/23/environmental-groups-appeal-approval-of-puget-sound-commercial-net-pen-aquaculture-to-washingtons-supreme-court> [https://perma.cc/B9KY-UYFY]; *Washington Supreme Court Agrees to Hear Case that Could Reverse Approval of Cooke's Steelhead Proposal*, *supra* note 77.

<sup>80</sup> Appellants' Opening Brief at \*20–50, *Wild Fish Conservancy v. Wash. Dep't of Fish & Wildlife*, 502 P.3d 359 (Wash. 2022).

<sup>81</sup> *Wild Fish Conservancy*, 502 P.3d at 362.

<sup>82</sup> *Id.* at 379; *see also Cooke Aquaculture Faces New LawsUIT over Puget Sound Net Pens Harm to Threatened and Endangered Orcas, Chinook, Steelhead, and Other Protected Wild Fish*, WILD FISH CONSERVANCY (Feb. 10, 2021), <https://wildfishconservancy.org/cooke-aquaculture-faces-new-lawsuit-over-puget-sound-net-pens-harm-to-threatened-and-endangered-orcas-chinook-steelhead-and-other-protected-wild-fish-2/> [https://perma.cc/X6X4-EYH8].

<sup>83</sup> *Wild Fish Conservancy*, 502 P.3d at 372.

<sup>84</sup> *Army Corps Sued over Failure to Release Documents Regarding Approval of Nationwide Permit 56 for Offshore Finfish Aquaculture Structures*, CTR. FOR FOOD SAFETY (July 26, 2022), <https://www.centerforfoodsafety.org/press-releases/6684/army-corps-sued-over-failure-to-release-documents-regarding-approval-of-nationwide-permit-56-for-offshore-fin-fish-aquaculture-structures> [https://perma.cc/L2XL-ZNKD].

aquaculture structures in federal ocean waters around the country.<sup>85</sup> CFS also filed an intent to sue the USACE regarding the agency's failure to consider impacts to endangered species when it authorized construction of one of these offshore finfish aquaculture facilities.<sup>86</sup> In May of 2022, CFS submitted a FOIA request to the USACE that sought documents pertaining to the approval of the NWP 56, which the USACE did not produce.<sup>87</sup> The plaintiffs requested this information to better understand the USACE's decision to approve NWP 56 because they allege that the USACE overlooked potential cumulative impacts on endangered species.<sup>88</sup> The complaint for declaratory and injunctive relief argues that the defendant failed to comply with the FOIA Mandatory Determination Deadline to conduct an adequate search for responsive records, provide reasonably segregable portions of any lawfully exempt records, and offer an estimated date of completion as required by FOIA.<sup>89</sup> As of this writing, the case is pending.<sup>90</sup>

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

<sup>86</sup> Letter from Jennifer Loda & Meredith Stevenson, Ctr. for Food Safety, to Lt. General Scott A. Spellmon, Chief, U.S. Army Corps of Eng'rs, Deb Haaland, Sec'y, Dep't of the Interior, Gina Raimondo, Sec'y, U.S. Dep't of Com., Martha Williams, Dir., U.S. Fish & Wildlife Serv., Janet Coit, Assistant Admn'r for Fisheries, NOAA Fisheries Directorate, 60 Day Notice of Intent to Sue: Violations of the Endangered Species Act for Issuance of Nationwide Permit 56 (June 22, 2022).

<sup>87</sup> *Army Corps Sued over Failure to Release Documents Regarding Approval of Nationwide Permit 56 for Offshore Finfish Aquaculture Structures*, *supra* note 84.

<sup>88</sup> Complaint for Declaratory and Injunctive Relief at 2, Ctr. for Food Safety v. U.S. Army Corps of Eng'rs, No. 1:22-cv-02183-CKK (D.D.C. July 25, 2022).

<sup>89</sup> *Id.* at 9–15.

<sup>90</sup> While the aforementioned litigation was pending, the same plaintiffs issued a notice of intent to sue Cooke Aquaculture in February 2021, arguing that the net pen facilities lead to the taking of protected species under the ESA, which include Chinook salmon, steelhead, bull trout, chum salmon, Boccaccio, Yelloweye Rockfish, and Southern Resident orcas. See *Cooke Aquaculture Faces New Lawsuit over Puget Sound Net Pens Harm to Threatened and Endangered Orcas, Chinook, Steelhead, and Other Protected Wild Fish*, *supra* note 82; Letter from Brian Knutsen, Kampmeier & Knutsen, PLLC to Cooke Aquaculture Pac., LLC, Re: Notice of Intent to Sue for Take of Protected Species in Violation of Section 9 of the Endangered Species Act 1 (Feb. 10, 2021), <https://wildfishconservancy.org/wp-content/uploads/2021/12/2-10-21-Notice-Letter-to-Cooke.pdf> [<https://perma.cc/K4Y8-T9RY>]. These alleged takings occur from a variety of circumstances, such as takes resulting from false attraction to Cooke's net pens; takes resulting from efforts to recover Cooke's escaped fish; takes resulting from interactions with Cooke's escaped fish; takes resulting from disease, viruses, and parasites at Cooke's farms; and takes of Southern Residents due to reduced prey. *Id.* at 5–9. The Wild Fish Conservancy alleges

Though climate change is not expressly referenced in the arguments made, ocean warming is noted as a factor that has led to a larger summer flounder distribution further northeast in comparison to the 1980s.<sup>91</sup> Due to the northeast shift towards the waters of Long Island, there has been an increase in commercial fishing for the summer flounder at this location, which is reflected in data that the U.S. Department of Commerce (“DOC”) collected.<sup>92</sup>

In *New York v. Raimondo*, the State of New York filed suit against the DOC, alleging that the DOC’s actions updating allocation rules pertaining to management of commercial fishery were in violation of the Magnuson-Stevens Fishery Conservation and Management Act.<sup>93</sup> The 2020 Allocation Rule replaced the 1993 Allocation Rule, which utilized the same formula based on state-by-state landing data from the 1980s.<sup>94</sup> The State of New York contended that the 2020 Allocation Rule violates the Act because it “reflect[s] a summer flounder fishery that no longer exists.”<sup>95</sup> As the DOC applied the 2020 Allocation Rule in the 2021 season, the State of New York argued that the DOC’s action is arbitrary and capricious.<sup>96</sup>

The court rejected New York’s challenge, stating that the rule was consistent with the Magnuson-Stevens Fishery Conservation and Management Act and that NMFS utilized the “best scientific data available,” albeit not the “best scientific data possible.”<sup>97</sup> The decision confirms that NMFS had considered all information available before determining the 2020 Allocation Rule and that, as an agency, it exercised its expertise and discretion to choose between conflicting facts and opinions.<sup>98</sup>

Though litigation referencing ocean warming impacts to fish stocks is rare, there has been ample litigation pertaining to allocation of catch limits.<sup>99</sup> In May 2022, in *A.P. Bell Fish Company, Inc. v. Raimondo*,

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that Cooke is in violation of the ESA because it has neither sought nor obtained an authorization for exemption for these takes. *Id.* at 9.

<sup>91</sup> Complaint at 12–13, *New York v. Ross*, No. 1:21-cv-00304 (S.D.N.Y. Jan. 13, 2021) [hereinafter *Ross Complaint*].

<sup>92</sup> *Id.* at 15.

<sup>93</sup> 594 F. Supp. 3d 588, 594, 598 (S.D.N.Y. 2022).

<sup>94</sup> *Ross Complaint*, *supra* note 91, at 2.

<sup>95</sup> *Id.* at 3.

<sup>96</sup> *Id.*

<sup>97</sup> *Raimondo*, 594 F. Supp. 3d at 600 (quoting *Bldg. Indus. Ass’n v. Norton*, 247 F.3d 1241, 1246 (D.C. 2001) (internal quotation marks omitted) (emphasis in original)).

<sup>98</sup> *Id.*

<sup>99</sup> *Iudicello & Lueders*, *supra* note 72, at 157.



commercial fishers sued NMFS regarding the U.S. red grouper reallocation.<sup>100</sup> The lawsuit was filed in response to NMFS's implementation of Amendment 53, which substantially lowered the commercial sector's catch share from 76% to 59.3%, while increasing the recreational catch share from 24% to 40.7%.<sup>101</sup> The plaintiffs argued that the recreational fishing sector was receiving preference due to NMFS's failure to utilize the best available science.<sup>102</sup>

Despite a lack of express reference to climate change or ocean warming in many cases pertaining to fisheries management, many of these lawsuits have relied on arguments based on the failure to rely on best available science.<sup>103</sup> As best science practice continues to develop and encapsulate more impacts on marine habitats from climate change, there may be an uptick in litigation explicitly addressing climate change and ocean warming in such cases moving forward.

### III. MARINE PLASTICS

Plastic pollution is one of the most significant threats to the marine environment.<sup>104</sup> It contributes to climate change and ecosystem degradation.<sup>105</sup> Plastic accumulates in a variety of ecosystems—floating in oceanic gyres, entangling wildlife, washing up along beaches, and appearing in human digestive systems.<sup>106</sup> It is a material made from fossil fuels and oils and will not decompose for at least 400 years, if ever.<sup>107</sup>

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<sup>100</sup> Complaint for Declaratory & Injunctive Relief at 2, *A.P. Bell Fish Co. v. Raimondo*, 2023 WL 122270, No. 1:22-cv-0126 (D.D.C. Jan. 6, 2023) [hereinafter *A.P. Bell Fish Co. Complaint*].

<sup>101</sup> *Id.* at 3; Cliff White, *Gulf of Mexico Commercial Fishing Groups Sue U.S. Government over Red Grouper Reallocation*, SEAFOOD SOURCE (May 11, 2022), <https://www.seafoodsource.com/news/supply-trade/gulf-of-mexico-commercial-fishing-groups-sue-us-gov-ernment-over-red-grouper-reallocation> [https://perma.cc/EDW6-7L9G].

<sup>102</sup> *A.P. Bell Fish Co. Complaint*, *supra* note 100, at 28; Complaint for Declaratory & Injunctive Relief at 2, *Oceana, Inc. v. Raimondo*, 2022 WL 17178301, No. 5:21-cv-05407-VKD (N.D. Cal. Nov. 23, 2022) [hereinafter *Oceana, Inc. Complaint*].

<sup>103</sup> *See, e.g.*, *Oceana, Inc. Complaint*, *supra* note 102, at 2.

<sup>104</sup> *Ocean Plastics Pollution*, CTR. FOR BIOLOGICAL DIVERSITY, [https://www.biologicaldiversity.org/campaigns/ocean\\_plastics/](https://www.biologicaldiversity.org/campaigns/ocean_plastics/) [https://perma.cc/DV37-BRV9] (last visited Apr. 12, 2023).

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

<sup>107</sup> *The Problem with Plastic Bags*, CTR. FOR BIOLOGICAL DIVERSITY, [https://www.biologicaldiversity.org/programs/population\\_and\\_sustainability/sustainability/plastic\\_bag\\_facts.html](https://www.biologicaldiversity.org/programs/population_and_sustainability/sustainability/plastic_bag_facts.html) [https://perma.cc/2A7T-YPW4] (last visited Apr. 12, 2023).

Plastic has altered a variety of habitats for wildlife, ecosystems, food production resources, and human communities.

By 2025, there may be one ton of plastic for every three tons of fish in the marine environment.<sup>108</sup> By 2050, experts predict that oceans will contain more plastic than fish.<sup>109</sup> Multimillion-dollar investments to address plastic pollution are already underway around the world in many sectors of the economy including plastic production, solid waste management, tourism, and agriculture.<sup>110</sup>

Most plastic items—such as consumer goods, shopping bags, single-use packaging, clothing, and the one million plastic bottles purchased every minute<sup>111</sup>—are difficult to recycle and are disposed on land or into the marine environment.<sup>112</sup> Only 9% of plastic is recycled.<sup>113</sup> Various chemicals leach from plastic.<sup>114</sup> In some cases, the leaching of plastic impairs the growth of important microorganisms, like the phytoplankton *Prochlorococcus*, which is a marine bacterium that provides one tenth of the world's oxygen and is extremely important for the biological carbon pump.<sup>115</sup> The ocean has about a billion pounds of plastic trash that has taken over 40% of the ocean's surface and continues to grow.<sup>116</sup> In fact, oil and gas companies are preparing to transition away from their oil and

<sup>108</sup> Diego Donoso & Andreas Merkl, *By 2025, Our Seas May Be Filled with One Ton of Plastic for Every Three Tons of Fish*, GUARDIAN (Sept. 30, 2017, 12:41 PM), <https://www.theguardian.com/sustainable-business/2015/sep/30/dow-chemical-the-ocean-conservancy-ocean-plastics-pollution#:~:text=https://perma.cc/UKV2-6CWG>].

<sup>109</sup> Rebecca Harrington, *By 2050, the Oceans Could Have More Plastic than Fish*, BUS. INSIDER (Jan. 26, 2017, 4:42 PM), <https://www.businessinsider.com/plastic-in-ocean-outweighs-fish-evidence-report-2017-1#:~:text=https://perma.cc/BHM2-Y6HV>].

<sup>110</sup> Andy Valvur, *Plastics to Outweigh Fish in Oceans by 2050*, DW.COM (Jan. 20, 2016), <https://www.dw.com/en/plastics-to-outweigh-fish-in-oceans-by-2050-study-warns/a-18990459> [<https://perma.cc/EK98-MWR4>].

<sup>111</sup> Simon Scarr & Marco Hernandez, *Drowning in Plastic*, REUTERS GRAPHICS (Sept. 4, 2019), <https://graphics.reuters.com/ENVIRONMENT-PLASTIC/0100B275155/index.html> [<https://perma.cc/4XXT-QFB4>].

<sup>112</sup> *Id.*

<sup>113</sup> *Plastic Pollution Is Growing Relentlessly as Waste Management and Recycling Fall Short, Says OECD*, OECD (Feb. 22, 2022), <https://www.oecd.org/environment/plastic-pollution-is-growing-relentlessly-as-waste-management-and-recycling-fall-short.htm#:~:text=https://perma.cc/23XP-GZZR>].

<sup>114</sup> Steinar Brandslet, *Plastics Leach More Toxins into the Water than Previously Known*, MAR. EXEC. (Jan. 30, 2022, 6:31 PM), <https://maritime-executive.com/editorials/plastics-leach-more-toxins-into-the-water-than-previously-known> [<https://perma.cc/DDY7-EBEH>].

<sup>115</sup> *The Problem with Plastic Bags*, *supra* note 107. Phytoplankton such as *Prochlorococcus* contribute to the ocean's biological carbon pump by moving carbon from the atmosphere to the seafloor, providing carbon to other species at lower ocean depths. *See id.*

<sup>116</sup> *Ocean Plastics Pollution*, *supra* note 104.

gas fracking projects that contribute to climate change to enhance their plastic manufacturing as a source of revenue growth by building petrochemical plants, which will result in a 40% increase in plastic production over the next ten years.<sup>117</sup>

There is not one square mile of ocean surface on Earth that is free of plastic.<sup>118</sup> Even more disturbing, there are large garbage patches located in different areas of the Earth's oceans.<sup>119</sup> The largest one, the Great Pacific Garbage Patch, is located in the Pacific Ocean between Hawaii and California and is larger than the State of Alaska.<sup>120</sup> Remarkably, gear used to capture fish, such as fishing nets, accounts for 86% of the large plastics in the Great Pacific Garbage Patch.<sup>121</sup>

A recent study estimated that people consume at least 74,000 microplastic particles annually.<sup>122</sup> The research shows that humans consume about a credit card of plastic weekly.<sup>123</sup> The plastics industry produces microplastic items that contain chemical additives that will result in negative health effects on humans.<sup>124</sup> Plastic debris transmits pathogenic bacteria, like *E. coli* and other parasites, and plastic ingestion can pose toxicological risks.<sup>125</sup> Bisphenol A, also known as BPA, is an additive used in containers that store food and water. BPA has been correlated with an elevated risk of cardiovascular disease, type 2 diabetes, and liver complications.<sup>126</sup>

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<sup>117</sup> *Id.*; *The Problem with Plastic Bags*, *supra* note 107.

<sup>118</sup> *Ocean Plastics Pollution*, *supra* note 104.

<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> Sara Berman, *The Environmental Impact of the Fishing Industry*, CLIMATE CHANGE REV. (May 31, 2021), <https://www.ucsdclimaterewiew.org/post/the-environmental-impact-of-the-fishing-industry> [<https://perma.cc/J5UP-FYX5>].

<sup>122</sup> ELLA HARVEY, SONJA FORTUIN, MICHELLE BENDER & MARSHA MOUTRIE, EARTH L. CTR., UTILIZING EARTH LAW TO ADDRESS PLASTIC POLLUTION 5, <https://static1.squarespace.com/static/55914fd1e4b01fb0b851a814/t/5ef0e36f65e27324a65bbeb3/1592845208595/Earth+Center+Law+Plastic+Pollution+Toolkit.pdf> [<https://perma.cc/64FW-YFYD>] (last visited Apr. 12, 2023).

<sup>123</sup> *The Problem with Plastic Bags*, *supra* note 107.

<sup>124</sup> *The Problem with Plastic Bags*, *supra* note 107. Microplastics also have an adverse impact on the marine environment through the phenomenon known as “marine snow.” See Sabrina Imbler, *In the Ocean, It's Snowing Microplastics*, N.Y. TIMES (Apr. 3, 2022), <https://www.nytimes.com/2022/04/03/science/ocean-plastic-animals.html> [<https://perma.cc/G8ZX-YW8A>] (defining “marine snow” as a “drizzle of death” that consists of waste that travels from the ocean's surface to the ocean floor and noting that “99.8 percent of plastic that entered the ocean since 1950 had sunk below the first few hundred feet of the ocean” and is expected to remain in the ocean until the end of time).

<sup>125</sup> HARVEY ET AL., *supra* note 122, at 5.

<sup>126</sup> *Id.*

In July 2022, the U.S. government announced its commitment to evaluate ways to reduce its purchases of single-use plastics.<sup>127</sup> Plastic production causes more greenhouse gas emissions and toxic air pollution, which exacerbates the climate change crisis and disproportionately burdens vulnerable communities.<sup>128</sup>

#### A. *Impact of Plastics on Marine Mammals*

The estimated 12,700,000 tons of plastic pollution that reach the ocean each year have significant impacts on marine wildlife.<sup>129</sup> About 663 marine species are affected by plastic pollution.<sup>130</sup> Each year, thousands of marine mammals are killed from ingestion, entanglement in plastic products, or starvation after feeling full from eating plastic.<sup>131</sup> In the North Pacific, fish have ingested 12,000 to 14,000 tons of plastic annually, which results in an intestinal transfer of plastic up the food chain to bigger fish, marine mammals, and human seafood eaters.<sup>132</sup> Most concerning is the deadly threat of plastic pollution on endangered marine mammals like Hawaiian monk seals and Steller sea lions.<sup>133</sup>

Marine mammals can die from the inflammation of abdominal tissues caused by the intake of indigestible plastic.<sup>134</sup> Toothed whales and species of dolphins use sonar-type hunting techniques, called echolocation, to hunt their prey.<sup>135</sup> The ingestion of fourteen pieces of plastic is enough to result in the risk of death.<sup>136</sup>

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<sup>127</sup> Proposed Rule on Single-Use Plastics and Packaging, 87 Fed. Reg. 40476 (July 7, 2022) (to be codified at 48 C.F.R. 523, 552); see also *Biden Administration Moves to Curb Single-Use Plastic in Federal Purchasing*, CTR. FOR BIOLOGICAL DIVERSITY (July 6, 2022), <https://biologicaldiversity.org/w/news/press-releases/biden-administration-moves-to-curb-single-use-plastic-in-federal-purchasing-2022-07-06/> [<https://perma.cc/L8CS-Q369>].

<sup>128</sup> *The Problem with Plastic Bags*, *supra* note 107.

<sup>129</sup> *Plastic in Our Oceans Is Killing Marine Mammals*, WWF AUSTL. (July 1, 2021), <https://www.wwf.org.au/news/blogs/plastic-in-our-oceans-is-killing-marine-mammals> [<https://perma.cc/9NQZ-D7DV>].

<sup>130</sup> HARVEY ET AL., *supra* note 122, at 5.

<sup>131</sup> *Ocean Plastics Pollution*, *supra* note 104.

<sup>132</sup> *Id.*

<sup>133</sup> *Id.*

<sup>134</sup> *Plastic in Our Oceans Is Killing Marine Mammals*, *supra* note 129.

<sup>135</sup> *Id.* (“Some scientists believe that unnatural objects such as plastic waste confuse this sonar [hunting technique], and are incorrectly interpreted as food.”).

<sup>136</sup> Simon Reddy, *Plastic Pollution Affects Sea Life Throughout the Ocean*, PEW (Sept. 24, 2018), <https://www.pewtrusts.org/en/research-and-analysis/articles/2018/09/24/plastic-pollution-affects-sea-life-throughout-the-ocean> [<https://perma.cc/7K6D-89C4>].

Plastic debris kills about 100,000 marine mammals each year through ingestion or entanglement.<sup>137</sup> Especially common is entanglement through abandoned plastic-based fishing gear.<sup>138</sup> The fishing gear captures marine mammals that are swimming too close and results in an entanglement that holds the mammal back from being able to get oxygen from the ocean surface.<sup>139</sup>

Macroplastics (twenty millimeter plastics) are what capture and entangle marine mammals, which cause injury, starvation, and vulnerability to predators.<sup>140</sup> Mesoplastics (five to ten millimeter plastics) are visible fragments that float on the surface of the water and are often mistaken as bits of food, which leads to suffocation, starvation, and toxic contamination.<sup>141</sup> Microplastics and nanoplastics (both smaller than five millimeters) are particles of plastic that are not visible and therefore are consumed without knowledge.<sup>142</sup> Microplastics also absorb toxins and transfer harmful chemicals to organisms.<sup>143</sup>

### B. *Litigation and Regulatory Initiatives on Plastics*

As there is no federal legislation addressing plastic pollution, advocates are filing lawsuits to hold a wide range of parties—producers, transporters, manufacturers, and government officials—accountable for their contribution to the plastic pollution crisis.<sup>144</sup> Although the EPA was concerned with microplastic pellets and nurdles in the early 1990s, plastic producers found a way to thwart the EPA from implementing regulation by proposing a self-monitoring program called Operation Clean Sweep.<sup>145</sup>

There are specific ocean plastic materials that are the focus of litigation. Several environmental organizations have submitted petitions and filed lawsuits against federal agencies and private companies to compel

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<sup>137</sup> *Plastic in Our Oceans Is Killing Marine Mammals*, *supra* note 129.

<sup>138</sup> *Id.*

<sup>139</sup> *Id.*

<sup>140</sup> Steph Baker, *How Does Plastic Pollution Affect Marine Life?*, FAUNA & FLORA INT'L, <https://www.fauna-flora.org/news/how-does-plastic-pollution-affect-marine-life/> [<https://perma.cc/R98F-YTYF>] (last visited Apr. 12, 2023).

<sup>141</sup> *Plastic in Our Oceans Is Killing Marine Mammals*, *supra* note 129.

<sup>142</sup> Baker, *supra* note 140.

<sup>143</sup> *Id.*

<sup>144</sup> Sara Morath, Samantha Hamilton & Amanda Thompson, *Plastic Pollution Litigation*, 36 NAT. RES. & ENV'T 41, 41 (2021).

<sup>145</sup> *Id.* at 43.

plastic regulation and stop plastic pollution at its sources before it reaches the ocean.<sup>146</sup> For example, the Center for Biological Diversity (“CBD”) submitted a petition to the EPA to compel the agency to regulate plastics as a pollutant under the Clean Water Act (“CWA”), as it is a hazardous waste.<sup>147</sup> The CWA’s purpose is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”<sup>148</sup> The CWA requires states to identify water bodies that fail to meet the state’s water quality standards. States must also list the bodies as “impaired” waters.<sup>149</sup>

In a recent successful case, *San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics Corporation*,<sup>150</sup> Diane Wilson, a fisherwoman, successfully held Formosa Plastics, a major plastics company, accountable for discharging plastics into the ocean.<sup>151</sup> Wilson used lentil-sized plastic pieces floating in the water and raw plastic powder-contaminated water as evidence for her lawsuit.<sup>152</sup> Based on the CWA’s prohibition of the discharge of “floating solids or visible foam in other than trace amounts,”<sup>153</sup> Formosa Plastics was required to report violations from its wastewater pipe and storm water outfalls.<sup>154</sup> Formosa Plastics was found to have spilled plastic into the interconnecting network of Gulf of Mexico inlets, which violated the CWA.<sup>155</sup> The company was required to commit to better manufacturing practices and to submit \$50 million into a trust that funded local conservation, scientific research, and a sustainable fishing cooperative.<sup>156</sup> The case has set a precedent for changes in the U.S. fossil fuel industry and more stringent water regulations.<sup>157</sup>

The CBD also has filed suits to challenge companies that turn plastic into consumer goods.<sup>158</sup> In 2020, the CBD and Hawaiian environmental

<sup>146</sup> *Ocean Plastics Pollution*, *supra* note 104.

<sup>147</sup> *Id.*

<sup>148</sup> 33 U.S.C. § 1251(a).

<sup>149</sup> *See id.* § 1313(d)(1)(A).

<sup>150</sup> 852 Fed. Appx. 816, 816 (5th Cir. 2021).

<sup>151</sup> Beth Gardiner, *How a Dramatic Win in Plastic Waste Case May Curb Ocean Pollution*, NAT’L GEOGRAPHIC (Feb. 22, 2022), <https://www.nationalgeographic.com/environment/article/how-a-dramatic-win-in-plastic-waste-case-may-curb-ocean-pollution> [<https://perma.cc/2CYP-549V>].

<sup>152</sup> *Id.*

<sup>153</sup> *Plastic Law*, ELAW (quoting Formosa Plastics Corporation’s Clean Water Act permit), [https://elaw.org/plastic/US\\_Formosa\\_ConsentDecree\\_27Nov2019](https://elaw.org/plastic/US_Formosa_ConsentDecree_27Nov2019) [<https://perma.cc/28ZC-N9LU>] (last visited Apr. 12, 2023).

<sup>154</sup> *Id.*

<sup>155</sup> Gardiner, *supra* note 151.

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> *Ocean Plastics Pollution*, *supra* note 104.

groups sued the EPA under § 303(d) of the CWA.<sup>159</sup> The lawsuit was initiated when the EPA failed to acknowledge plastic pollution in Hawaii's water bodies.<sup>160</sup> The plaintiffs challenged the EPA's approval of a list of Hawaii's waters that failed to account for widespread plastic pollution, which threatens marine organisms and coastal communities.<sup>161</sup> The EPA was in violation of the CWA's requirement to meet water quality standards. As a result, the EPA withdrew its prior approval of the 2018 impaired waters and ordered a reexamination for a new list.<sup>162</sup>

On the legislative front, Canada and the United Kingdom ("U.K.") are taking proactive actions to fight plastic pollution. In 2022, the Canadian government undertook an initiative to combat climate change and plastic pollution.<sup>163</sup> Fifteen billion plastic checkout bags are used annually in Canada.<sup>164</sup> Canada plans to ban the manufacture and import of single-use plastic items, including plastic bags, straws, cutlery, and food services items.<sup>165</sup> In the U.K., there is also an effort underway to ban single-use plastic, including carrier bags and plastic wet wipes.<sup>166</sup>

#### IV. OCEAN ACIDIFICATION

Though ocean acidification ("OA") is a well-known impact of climate change in oceans,<sup>167</sup> only recently have lawsuits been filed pertaining to OA's impacts to shellfish population decline, calcification, and coral

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<sup>159</sup> Morath et al., *supra* note 144, at 43, 44.

<sup>160</sup> *Id.*

<sup>161</sup> *Id.*

<sup>162</sup> *Id.*; Notice Regarding Timing of Forthcoming EPA Action, Ctr. for Biological Diversity v. EPA, No. 1:20-cv-00056 (D. Haw. dismissed Sept. 2, 2020).

<sup>163</sup> *Wales and Canada Announce Single-Use Plastic Bans*, OCEANOGRAPHIC (June 23, 2022), <https://oceanographicmagazine.com/news/wales-and-canada-announce-single-use-plastic-bans/> [<https://perma.cc/MC7M-WYZM>].

<sup>164</sup> *Id.*

<sup>165</sup> *Id.*

<sup>166</sup> *Id.*

<sup>167</sup> See Joanne Liou, *What Is Ocean Acidification?*, IAEA (June 8, 2022), <https://www.iaea.org/newscenter/news/what-is-ocean-acidification> [<https://perma.cc/6V47-EXY9>] (noting that 95% of open ocean surface water has become more acidic since the 1980s and that the ocean is 30% more acidic now than it was before the Industrial Revolution); *What Is Ocean Acidification and How Does It Affect Marine Life?*, FACTORY FARMING AWARENESS COAL. (May 10, 2022), <https://ffcoalition.org/articles/ocean-acidification/> [<https://perma.cc/EC3K-X73F>] (examining the effects that ocean acidification has on coral reefs, fish, plants, and humans and suggesting that ocean acidification can be combated through the conservation of seagrasses and the reduction of carbon dioxide emissions).

bleaching. Several cases have been filed in the United States to address the impacts of ocean acidification on shellfish.<sup>168</sup>

In the United States, OA impacts are difficult to litigate in part because of the debate regarding how OA should be regulated under the CWA.<sup>169</sup> Like the Clean Air Act (“CAA”), the CWA is limited in its ability to regulate OA directly because the statute does not adequately address sources that emit pollutants into one medium and then pollute a secondary medium.<sup>170</sup> These realities make the problem of OA regulation comparable to the challenge of regulating mercury deposition into the ocean in the past.<sup>171</sup> Given that OA is the result of emissions of carbon dioxide into the atmosphere, it has been argued that the CAA is better suited to address it.<sup>172</sup>

Others contend that because OA is occurring in the water, it is a water pollution problem and should be regulated under the CWA, especially in light of the CWA’s regulation of ambient water quality.<sup>173</sup> Water quality criteria for OA was strengthened when the CBD petitioned the EPA to implement a more stringent federal national recommended water quality standard for pH under the CWA.<sup>174</sup>

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<sup>168</sup> See, e.g., Press Release, Ctr. for Biological Diversity, Lawsuit Launched over Feds Ignoring Ocean Acidification in Oregon: Carbon Pollution Impairs Coastal Waters, Hurts Marine Life (Mar. 31, 2021), <https://biologicaldiversity.org/w/news/press-releases/lawsuit-launched-over-feds-ignoring-ocean-acidification-in-oregon-2021-03-31/> [<https://perma.cc/6QY5-JVRZ>].

<sup>169</sup> Robin Kundis Craig, *Dealing with Ocean Acidification: The Problem, the Clean Water Act, and State and Regional Approaches*, 6 WASH. J. ENV’T L. & POL’Y 387, 408 (2016).

<sup>170</sup> *Id.* at 409.

<sup>171</sup> *Id.*; see also Celia Y. Chen, Charles T. Driscoll, Collin A. Eagles-Smith, Chris S. Eckley, David A. Gay, Heileen Hsu-Kim, Susan E. Keane, Jane L. Kirk, Robert P. Mason, Daniel Obrist, Henrik Selin, Noelle E. Selin & Marcella R. Thompson, *A Critical Time for Mercury Science to Inform Global Policy*, 52 ENV’T SCI. & TECH. 9556, 9561 (2018).

<sup>172</sup> Craig, *supra* note 169, at 409–10; see Margaret E. Peloso, *Using the Clean Air Act to Address Ocean Acidification*, in CLIMATE CHANGE IMPACTS ON OCEAN AND COASTAL LAW: U.S. AND INTERNATIONAL PERSPECTIVES 43, 44, 63–64 (Randall S. Abate ed., 2015); see also Reuben Makomere & Jan McDonald, *Responding to Ocean Acidification Beyond Climate Governance*, in RESEARCH HANDBOOK ON CLIMATE CHANGE, OCEANS AND COASTS 330, 337–47 (Jan McDonald, Jeffrey McGee & Richard Barnes eds., 2020) (discussing a range of mitigation and adaptation strategies to address OA in contexts outside the United States).

<sup>173</sup> Craig, *supra* note 169, at 410; see 33 U.S.C. § 1311; see also Miyoko Sakashita, *Curbing CO<sub>2</sub> Pollution: Using Existing Law to Address Ocean Acidification*, in CLIMATE CHANGE IMPACTS ON OCEAN AND COASTAL LAW: U.S. AND INTERNATIONAL PERSPECTIVES 27, 27–28, 41 (Randall S. Abate ed., 2015).

<sup>174</sup> Craig, *supra* note 169, at 410.



In Canada, the Fisheries Act 1985 contributes to regulating the Fish and Fish Habitat Protection and Pollution Prevention Act,<sup>175</sup> which defines “deleterious substances” as:

(a) any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or (b) any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.<sup>176</sup>

This provision’s inclusion of heated water that could degrade water quality is important as OA fits better into this description than under the CWA. Hence, the Fisheries Act 1985 could provide substantive grounds for a case pertaining to OA and its impacts on wildlife. Additionally, the Species at Risk Act governing the protection of endangered species requires the identification of critical habitats, which include many lichens and mussels that would be affected by changes in ocean acidity.<sup>177</sup> This law provides that damaging or destroying the residence of one of these endangered or threatened wildlife species is an offense, and the penalty can be as high as 1 million CAD.<sup>178</sup>

In the United States, lawsuits have been filed in regard to OA’s impact on shellfish calcification and coral bleaching and subsequent economic impacts on fishing. For example, in *Sinnok v. Alaska*, youth plaintiffs filed a complaint against the Alaska Climate and Energy Policy for violating due process, equal protection, and public trust rights protected under the Alaska Constitution.<sup>179</sup> The plaintiffs argued that when it

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<sup>175</sup> Fisheries Act, R.S.C. 1985, c F-14 (Can.).

<sup>176</sup> *Id.* § 34(1).

<sup>177</sup> Species at Risk Act, S.C. 2002, c 29 (Can.); *Species at Risk Public Registry*, GOV'T OF CAN., <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10> [https://perma.cc/63TX-U8S2] (Feb. 2, 2021).

<sup>178</sup> Species at Risk Act, S.C. 2002, c 29, § 97.

<sup>179</sup> Complaint for Declaratory and Equitable Relief at 1, *Sinnok v. Alaska*, 2018 WL

created the policy, the state knew that permitted activities were attributable to the climate crisis.<sup>180</sup> The plaintiffs claimed that the policy constituted an “abrogation of [its] duty to protect the atmosphere, climate system, waters, atmosphere, fish, wildlife and other crucial natural resources.”<sup>181</sup> As the Alaska Constitution defines public trust resources to include water, mineral, wildlife, and fish resources, the plaintiffs argued that the state failed to protect and properly manage and hold in trust these resources for the benefit of Alaskans and future generations.<sup>182</sup>

A few of the youth plaintiffs argued that warming seas and OA have impacted their ability to fish Pacific cod as this population has crashed in the Gulf of Alaska and has led to reduced populations of hardshell and razor clams on which they rely in their diet.<sup>183</sup> Another plaintiff stated that OA had resulted in a sharp reduction in razor clams and that he had not been able to harvest these clams in his family’s favorite location in three years.<sup>184</sup>

The Alaska Superior Court dismissed the case because it deemed the plaintiffs’ requests for relief to require climate change policy determinations, which must be made by the executive or legislative branch.<sup>185</sup> The court also stated that the judiciary lacks jurisdiction to grant the plaintiffs’ requested relief.<sup>186</sup> The youth plaintiffs in *Sinnok v. Alaska* filed an appeal in *Sagoonick v. State*<sup>187</sup> in the Alaska Supreme Court stating that the Superior Court misconstrued four of the counts alleging violations.<sup>188</sup> Nevertheless, on January 29, 2022, the Alaska Supreme Court affirmed the dismissal of the lawsuit because the plaintiffs’ claims for injunctive relief presented nonjusticiable political questions.<sup>189</sup>

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7458981, No. 3AN-17-09910 CI (Super. Ct. Alaska 2018), *aff’d sub nom.* Sagoonick v. State, 503 P.3d 777 (Alaska 2022).

<sup>180</sup> *Id.* at 2.

<sup>181</sup> *Id.*

<sup>182</sup> *Id.* at 43–44.

<sup>183</sup> *Id.* at 30.

<sup>184</sup> *Id.* at 27.

<sup>185</sup> Order Granting State’s Motion to Dismiss at 4, *Sinnok v. Alaska*, 2018 WL 7458981, No. 3AN-17-09910 CI (Super. Ct. Alaska 2018), *aff’d sub nom.* Sagoonick v. State, 503 P.3d 777 (Alaska 2022).

<sup>186</sup> *Id.* at 4.

<sup>187</sup> 503 P.3d 777, 782 (Alaska 2022).

<sup>188</sup> Appellants’ Statement of Points on Appeal at 2–4, *Sinnok v. Alaska*, 2018 WL 7458981, No. 3AN-17-09910 CI (Super. Ct. Alaska 2018), *aff’d sub nom.* Sagoonick v. State, 503 P.3d 777 (Alaska 2022).

<sup>189</sup> *Sagoonick*, 503 P.3d at 782.

In June 2022, the CBD filed a notice of intent to sue NMFS for failing to finalize protections for certain coral species found around Florida and in the Pacific islands.<sup>190</sup> The CBD has been petitioning for better protections for specific coral species since 2009, which was the date of its first suit against NMFS to protect eighty-three species of coral under the ESA.<sup>191</sup> In September of 2014, NMFS published a list of twenty of the original eighty-three species as threatened. NMFS identified the nine most significant threats to corals as ocean warming, disease, OA, fishing, sedimentation, nutrients, sea-level rise, predation, and collection and trade.<sup>192</sup> This list did not include failure to designate critical habitat for any of the newly listed species despite the requirement to do so under the ESA.<sup>193</sup> NMFS stated that designation of critical habitat for these species was not currently determinable.<sup>194</sup> NMFS explained that it planned to publish a proposed designation of critical habitats in a separate rule, but it has not provided a timeline for this plan as of this writing.<sup>195</sup>

In contrast to the above-mentioned cases regarding the role of OA in critical habitat designations for listed species of coral, the plaintiffs in *Pacific Coast Federation of Fishermen's Associations v. Chevron Corp.* focused on OA's impacts on the productivity of fisheries.<sup>196</sup> Fishing communities in California and Oregon filed suit against thirty companies (predominantly oil producers) contending that the companies significantly contributed to warming events along the West Coast.<sup>197</sup> The plaintiffs alleged that the impacts of climate change on the oceans are not only threatening the productivity of commercial fisheries but also the safety of commercially harvested seafood products due to the increased

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<sup>190</sup> *Lawsuit Launched to Protect Habitat for 12 Endangered Coral Species: Safeguards Needed Around Florida, Pacific Islands to Prevent Mass Extinction*, CTR. FOR BIOLOGICAL DIVERSITY (June 15, 2022), <https://biologicaldiversity.org/w/news/press-releases/lawsuit-launched-to-protect-habitat-for-12-endangered-coral-species-2022-06-15/> [<https://perma.cc/SH3P-K8NX>].

<sup>191</sup> Letter from Emily Jeffers, Ctr. for Biological Diversity to Gina Raimondo, Sec'y, Dep't of Com., 60-Day Notice of Intent to Sue Regarding Violations of the Endangered Species Act; Failure to Finalize Critical Habitat Designations for 12 Species of Threatened Coral 2 (June 15, 2022), <https://www.biologicaldiversity.org/programs/oceans/pdfs/Coral-Critical-Habitat-NOI-2022-06-14.pdf> [<https://perma.cc/XE8H-HSBF>].

<sup>192</sup> *Id.*

<sup>193</sup> *Id.* at 3.

<sup>194</sup> *Id.*

<sup>195</sup> *Id.*

<sup>196</sup> Complaint at 1, *Pac. Coast Fed'n of Fishermen's Ass'ns v. Chevon Corp.*, No. CGC-18-571-285 (Cal. Super. Ct. filed Nov. 14, 2018) [hereinafter *Fishermen's Ass'ns Complaint*].

<sup>197</sup> *Id.*

frequency and severity of algal blooms.<sup>198</sup> These events have led to a number of domoic acid blooms that required crab fishery closures.<sup>199</sup> The plaintiffs also referenced the degree to which these companies understood the hazards and harms associated with their activities, referencing reports pertaining to the impacts of emissions tracing back as far as 1963.<sup>200</sup>

The case includes five causes of action including nuisance, strict liability, and negligence.<sup>201</sup> The plaintiffs argued that the defendants created conditions that permitted hazardous conditions to persist.<sup>202</sup> They asserted that this activity constitutes a nuisance in the form of mean sea temperature increase and increased frequency of marine heatwaves and algal blooms.<sup>203</sup> The plaintiffs alleged that these impacts are harmful to human health and obstruct and threaten to obstruct the free use of natural resources held in the public interest and, as such, interfere with the enjoyment of life and property.<sup>204</sup>

The plaintiffs cite failure to warn and design defect as strict liability causes of action.<sup>205</sup> They state that these companies individually and collectively knew, or should have known, the scientific knowledge accepted at the time pertaining to fossil fuel products and their impacts, yet the defendants disseminated marketing materials refuting this accepted knowledge.<sup>206</sup> The result of these actions ensured that the plaintiffs sustained injuries, which include economic damages, damage to natural resources held in public trust, and deprivation of the right to use fishing privileges.<sup>207</sup> The other strict liability cause of action, design defect, highlights how fossil fuel products have not performed as safely as an ordinary consumer would expect them to considering their many impacts on the global climate.<sup>208</sup> As a direct result of the defects of this product, the plaintiffs sustained and continue to sustain injuries and damages, including economic losses due to commercial fishery closures.<sup>209</sup>

Lastly, the plaintiffs asserted that the defendants' actions constitute negligence, as they collectively and individually had a duty of care

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<sup>198</sup> *Id.*

<sup>199</sup> *Id.* at 6.

<sup>200</sup> *Id.* at 37.

<sup>201</sup> *Id.* at 86–87.

<sup>202</sup> Fishermen's Ass'ns Complaint, *supra* note 196, at 77.

<sup>203</sup> *Id.*

<sup>204</sup> *Id.*

<sup>205</sup> *Id.* at 81.

<sup>206</sup> *Id.*

<sup>207</sup> *Id.* at 82.

<sup>208</sup> Fishermen's Ass'ns Complaint, *supra* note 196, at 83.

<sup>209</sup> *Id.* at 85.

in developing, designing, testing, inspecting, and distributing fossil fuel products.<sup>210</sup> Additionally, they argued that the defendants' actions were negligent as they failed to warn plaintiffs about injuries and damages that would occur.<sup>211</sup>

In late December 2018, the defendants filed an action for removal to federal court, as the plaintiffs' claims implicate federal interests and are governed by federal common law.<sup>212</sup> Given the recent developments in the *BP v. Baltimore* line of cases in five federal circuits in the first half of 2022,<sup>213</sup> the *Pacific Coast Federation of Fishermen's Associations v. Chevron Corp.* case will likely proceed to trial in state court in 2023.

The increased frequency and intensity of coral bleaching in Australia and many other high-temperature coastal countries has been the focus of recent litigation.<sup>214</sup> These bleaching events are a direct impact of OA and rising sea temperatures as coral reef organisms cannot survive outside a very narrow temperature range.<sup>215</sup> In June 2022, the Australian Conservation Foundation filed suit in the Federal Court against Woodside's Scarborough Gas Project, which, if approved, would significantly contribute to carbon dioxide emissions.<sup>216</sup> Approval for such a project usually is granted under the National Offshore Petroleum Safety and Environmental Management Authority, which is exempt from the Environment Protection and Biodiversity Conservation Act 1999 ("EPBC Act").<sup>217</sup> The plaintiffs contend that when an offshore project

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<sup>210</sup> *Id.* at 86.

<sup>211</sup> *Id.* at 88.

<sup>212</sup> Notice of Removal by Defendants Chevron Corporation and Chevron U.S.A., Inc. at 1, 4–5, *Pac. Coast Fed'n of Fishermen's Ass'ns v. Chevron*, No. 3:18-cv-7477 (N.D. Cal. filed Dec. 12, 2018).

<sup>213</sup> For a discussion of these developments, see *infra* Section VII.A.

<sup>214</sup> *Great Barrier Reef: New Mass Coral Bleaching Confirmed in Australia*, BBC, <https://www.bbc.co.uk/newsround/60805296> [<https://perma.cc/PK36-Z49K>] (Mar. 25, 2022, 7:36 AM); *First Photos of 2020 Coral Bleaching*, WWF AUSTL. (Feb. 21, 2020), <https://www.wwf.org.au/news/news/2020/first-photos-of-2020-coral-bleaching> [<https://perma.cc/KWL5-S3GD>].

<sup>215</sup> *First Photos of 2020 Coral Bleaching*, *supra* note 214.

<sup>216</sup> *Australian Conservation Foundation Launches Legal Action Against Woodside*, CLIMATE NEWS AUSTL., <https://climatenewsaustralia.com/australian-conservation-foundation-launches-legal-action-against-woodside/> [<https://perma.cc/XQX5-H8A5>] (last visited Apr. 12, 2023); Notice of Filing & Hearing at 3–4, *Australian Conservation Foundation Incorporated v Woodside Energy Ltd* (Federal Court of Australia, VID345/2022, commenced June 21, 2022) (Austl.) [hereinafter ACF Notice of Filing]; *ACF to Challenge Woodside's Scarborough Gas Project*, AUSTL. CONSERVATION FOUND. (June 22, 2022), <https://www.acf.org.au/acf-to-challenge-scarborough-gas-project> [<https://perma.cc/5FEJ-76MA>].

<sup>217</sup> *ACF to Challenge Woodside's Scarborough Gas Project*, *supra* note 216.

significantly impacts the world or National Heritage Values of the Great Barrier Reef, the EPBC Act applies and thus the Scarborough Gas Project should constitute an action included within the scope of the EPBC Act.<sup>218</sup> The plaintiffs contend that “[t]he Great Barrier Reef has suffered, and will continue to suffer, mass coral bleaching events as a result of current levels of anthropogenic climate change and the corresponding increase in global average surface and sea surface temperatures.”<sup>219</sup> As of this writing, the case is pending.<sup>220</sup>

While awaiting a decision on the Scarborough Gas Project, the Minister for the Environment issued another decision pertaining to the protection of the Great Barrier Reef from a coal mine project. In February 2023, the Minister for the Environment refused to approve a permit for the Central Queensland Coal Pty Ltd coal mine project approximately 130 kilometers northwest of Rockhampton.<sup>221</sup> The Minister reasoned that the project would pose an unacceptable risk to the Great Barrier Reef and listed migratory species. The Minister also concluded that rejecting the proposed coal mine is consistent with the country’s 2050 Net Zero Plan as the coal mine would contribute to climate change, global warming, emissions, and extreme weather events.<sup>222</sup>

## V. OFFSHORE WIND

Offshore wind is one of the most promising forms of renewable energy that many coastal countries are pursuing to achieve their carbon reduction goals. Despite the immense quantity of energy that can be created through these wind farms, the potential environmental impacts that these facilities may have on marine habitats have raised concerns.<sup>223</sup>

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<sup>218</sup> ACF Notice of Filing, *supra* note 216, at 5.

<sup>219</sup> *Id.* at 4.

<sup>220</sup> *Id.* at 5, 7.

<sup>221</sup> Minister for the Environment and Water, *Statement of Reasons for Decision to Refuse Approval under the Environment Protection and Biodiversity Conservation Act 1999* (2016/7851, 8 February 2023), ¶ 1, <https://epbcpublicportal.awe.gov.au/all-notices/project-decision/?id=ed1babd3-02a8-ed11-aad0-000d3ae0929c> [<https://perma.cc/7A22-V2PE>].

<sup>222</sup> *Id.*

<sup>223</sup> Helen Bailey, Kate L. Brookes & Paul M. Thompson, *Assessing Environmental Impacts of Offshore Wind Farms: Lessons Learned and Recommendations for the Future*, 10 AQUATIC BIOSYSTEMS, No. 8, 2014, at 1, 1–6, 10; *see also* Ibon Galparsoro, Iratxe Menchaca, Joxe Mikel Garmendia, Ángel Borja, Ana D. Maldonado, Gregorio Iglesias & Juan Bald, *Reviewing the Ecological Impacts of Offshore Wind Farms*, 1 NPJ: OCEAN SUSTAINABILITY, No. 1, 2022, at 1, 3, 5 (evaluating the potential ecological consequences

Risks include increased noise levels, changes in benthic and pelagic habitats, alterations of food webs, pollution from increased vessel traffic, and release of contaminants from seabed sediments.<sup>224</sup> Noise pollution from offshore wind infrastructure and development is likely to pose the greatest threat to marine mammals,<sup>225</sup> which underscores the potentially conflicting environmental governance objectives that countries face in seeking to pursue these projects. Changes in the location of marine species<sup>226</sup> also impact fishing communities' ability to secure reliable work.

Offshore wind farm projects also have had a track record of becoming ensnared in years of litigation in which plaintiffs have sought to halt or delay the process for projects.<sup>227</sup> Various motives underlie these actions such as "NIMBYism"<sup>228</sup> and other concerns regarding the production of this type of renewable energy. The Cape Wind Project in the United States illustrates this struggle, as litigation regarding the proposed project continued for more than a decade and ultimately resulted in failure to proceed with the project.<sup>229</sup> With growing momentum and political will supporting actions to combat the climate crisis, opposition comparable to the scale involved in the Cape Wind case has declined, yet concerns persist regarding the impacts of these projects on marine habitats.

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that offshore wind farms have on the marine ecosystem and concluding that marine life can be impacted in terms of their "abundance and distribution" based on how an offshore wind farm is developed); Josep Lloret, Antonio Turiel, Jordi Solé, Elisa Berdalet, Ana Sabatés, Alberto Olivares, Josep-Maria Gili, Josep Vila-Subirós & Rafael Sardá, *Unravelling the Ecological Impacts of Large-Scale Offshore Wind Farms in the Mediterranean Sea*, 824 SCI. TOTAL ENV'T, 2022, at 1, 3–6, 9–10 (examining effects of offshore wind farms in the Mediterranean Sea and concluding that their impacts in the Mediterranean have not been adequately assessed; therefore, implementation of the wind farms may threaten species within marine protected areas).

<sup>224</sup> Bailey et al., *supra* note 223, at 1.

<sup>225</sup> *Id.* at 2–3.

<sup>226</sup> *Offshore Wind Farms Change Marine Ecosystems, Study Shows*, PHYS.ORG, HELMHOLTZ ASS'N OF GERMAN RSCH. CTRS. (Nov. 28, 2022), <https://phys.org/news/2022-11-offshore-farms-marine-ecosystems.html> [<https://perma.cc/FME8-RVKT>].

<sup>227</sup> David T. Stevenson, *Why Offshore Wind Faces Lawsuits*, REALCLEAR ENERGY (Sept. 15, 2021), [https://www.realclearenergy.org/articles/2021/09/15/why\\_offshore\\_wind\\_faces\\_lawsuits\\_794583.html](https://www.realclearenergy.org/articles/2021/09/15/why_offshore_wind_faces_lawsuits_794583.html) [<https://perma.cc/X2LE-2LY7>].

<sup>228</sup> "NIMBYism" refers to the phenomenon of local community opposition to projects that have adverse environmental impacts on the basis of "not in my backyard" concerns. See Peter D. Kinder, *Not in My Backyard Phenomenon*, BRITANNICA, <https://www.britannica.com/topic/Not-in-My-Backyard-Phenomenon> [<https://perma.cc/P65Y-8JXG>] (Jan. 21, 2023).

<sup>229</sup> Kenneth Kimmell & Dawn Stolfi Stalenhoef, *The Cape Wind Offshore Wind Energy Project: A Case Study of the Difficult Transition to Renewable Energy*, 5 GOLDEN GATE U. ENV'T L.J. 197, 198, 205 (2011).

For example, in *Save Long Beach Island v. U.S. Department of the Interior*, a group of New Jersey residents sued BOEM in January 2022, seeking a reversal of BOEM's decision to pursue wind turbine development in an area thirty miles off the coast of New Jersey.<sup>230</sup> The plaintiffs assert that BOEM failed to comply with the National Environmental Policy Act ("NEPA") and the ESA.<sup>231</sup> The plaintiffs argue that BOEM did not prepare a regional programmatic EIS that: (1) addressed the cumulative impacts of the five Wind Energy Areas BOEM selected for the New York Bight and other Wind Energy Areas connected to it, and (2) considered alternative levels of wind energy development in the selected wind energy areas alongside wind energy areas different from locations that the defendant proposed.<sup>232</sup>

BOEM plans to forego analysis until after wind leases are issued and leaseholders submit specific wind energy projects. The plaintiffs contend that BOEM's decision does not comply with NEPA because the decision does not allow for public comment and critique on actions affecting public ocean resources.<sup>233</sup> The plaintiffs also argue that the areas located immediately south of the New York Bight lie within a habitat frequented by various marine mammals, which include threatened and endangered species under the ESA.<sup>234</sup> Construction of offshore wind would impact these habitats and migration corridors, and could cause takings of these species.<sup>235</sup> As such, pursuant to Section 7 of the ESA, "any federal agency whose actions or decisions may affect a federally listed species must consult with the federal wildlife agency—[FWS]—that has jurisdiction over the species in question."<sup>236</sup> In this case, the pertinent agency is NMFS, and BOEM failed to consult with NMFS on the issue.<sup>237</sup> The plaintiffs seek an order reversing and setting aside BOEM's decision to designate the five Wind Energy Areas within the New York Bight.<sup>238</sup>

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<sup>230</sup> Sebastien Malo, *Feds Sued over Offshore Wind Farm Leases Near Jersey Shore Resort*, REUTERS (Jan. 11, 2022, 3:00 PM), <https://www.reuters.com/legal/litigation/feds-sued-over-offshore-wind-farm-leases-near-jersey-shore-resort-2022-01-11/> [<https://perma.cc/7B4V-ANGK>]; Complaint for Declaratory & Injunctive Relief at 1, 5, 6, *Save Long Beach Island v. U.S. Dep't of the Interior*, 1:22-cv-00055 (D.D.C. filed Jan. 10, 2022).

<sup>231</sup> Complaint for Declaratory & Injunctive Relief, *supra* note 230, at 2.

<sup>232</sup> *Id.*

<sup>233</sup> *Id.*

<sup>234</sup> *Id.* at 3.

<sup>235</sup> *Id.*

<sup>236</sup> *Id.* at 3 (citing 16 U.S.C. § 1536(a); 50 C.F.R. § 402.14).

<sup>237</sup> Complaint for Declaratory & Injunctive Relief, *supra* note 230, at 3.

<sup>238</sup> *Id.* at 27.



In March 2022, the U.S. Department of the Interior (“DOI”) filed a motion to dismiss the plaintiffs’ claims for lack of jurisdiction and failure to state a claim.<sup>239</sup> DOI contends that the plaintiffs cannot make claims based on NEPA and the ESA because BOEM has not approved a construction or operation plan and therefore no actions have been taken that may affect endangered and threatened species or designated critical habitats.<sup>240</sup> Consequently, the agency argued that the plaintiffs lack standing because their allegations are based on anticipated construction and operation of the wind energy facilities.<sup>241</sup> As of this writing, the case is pending.<sup>242</sup>

Similar arguments have been made in *Allco Renewable Energy Ltd. v. Haaland*.<sup>243</sup> The owner of Allco Renewable Energy filed this suit against DOI for not overturning the recent federal agency approval of a sixty-two turbine wind farm off the coast of Martha’s Vineyard in Massachusetts.<sup>244</sup> The plaintiff claimed that the decision violates NEPA, the Outer Continental Shelf Lands Act, the CWA, and the MMPA<sup>245</sup> because no offshore wind turbines could withstand a Category 3 or greater Atlantic hurricane, and neither the record of the decision nor the environmental impact assessment from the decision examine the safety or engineering issues regarding the untested and unbuilt experimental wind turbines.<sup>246</sup> The plaintiff also argued that an adverse weather event or hurricane could lead to a release of oil and contaminants from the wind turbine generators that would likely cause a take of or threaten extinction of multiple endangered species, or both.<sup>247</sup> Such an incident would also impact fishing areas.<sup>248</sup>

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<sup>239</sup> Motion to Dismiss, *Save Long Beach Island v. U.S. Dep’t of the Interior*, No. 1:22-cv-00055-DLF, 2022 WL 10407651 (D.D.C. Mar. 21, 2022); Stacey Bosshardt, Aimee Ford & Laura Smith Morton, *Government Moves to Dismiss Case Challenging New York Bight Wind Energy Area Designations*, JD SUPRA (Mar. 25, 2022), <https://www.jdsupra.com/legalnews/government-moves-to-dismiss-case-7208481/> [<https://perma.cc/T4JE-4EHW>].

<sup>240</sup> Bosshardt et al., *supra* note 239.

<sup>241</sup> *Id.*

<sup>242</sup> *Id.*

<sup>243</sup> No. 1:21-cv-11171-IT, 2022 WL 2373914 at \*1 (D. Mass. June 30, 2022).

<sup>244</sup> Jon Chesto, *Lawsuit Challenges \$2.8b Vineyard Wind Project*, BOS. GLOBE, <https://www.bostonglobe.com/2021/07/21/business/lawsuit-challenges-28b-vineyard-wind-project/#:~:text=The%20owner%20of%20a%20New%20Haven-based%20solar%20farm,joint%20venture%20off%20the%20coast%20of%20Martha%E2%80%99s%20Vineyard> [<https://perma.cc/X3E6-DA6T>] (July 21, 2021, 8:06 PM); Complaint for Declaratory & Injunctive Relief at 1, *Allco Renewable Energy Ltd.*, 2022 WL 2373914, at \*1 (filed July 18, 2021).

<sup>245</sup> Complaint for Declaratory & Injunctive Relief, *supra* note 244, at 2, 55.

<sup>246</sup> *Id.* at 2, 21.

<sup>247</sup> *Id.* at 3, 22.

<sup>248</sup> *Id.* at 2.

As a resident in the vicinity of the project, the plaintiff also claimed that he would suffer substantial adverse effects where the defendants do not implement regulations and federal laws regarding conservation of imperiled species.<sup>249</sup> He also argued that adverse impacts to the Piping Plover, which partly reside on his property, and the North Atlantic Right Whale, which has designated critical habitat in Nantucket Sound, would affect the recreational, scientific, conservational, and aesthetic benefits he derives from their existence.<sup>250</sup> The lawsuit is pending as of this writing, as General Electric, the turbine supplier, was in litigation with Siemens Gamesa regarding the intellectual property rights for the turbines.<sup>251</sup> A judgment is necessary in that case first to decide whether the turbines can be used for the Vineyard Wind Project. In February 2023, a district court judge ordered General Electric to double their royalty payments to Siemens Gamesa.<sup>252</sup>

The United States' litigation in this area demonstrates historic dissatisfaction with offshore wind energy projects and the conflicts that can arise between clean energy and other environmental efforts to protect marine habitats. In this way, litigation challenging offshore wind infrastructure can impair climate change adaptation and mitigation efforts, as clashing sectors and interests compete to have their concerns addressed.

In the U.K., similar actions have been filed against government defendants to combat anticipated impacts from offshore wind projects. In *Raymond Stephen Pearce v. Secretary of State for Business Energy & Industrial Strategy*, the plaintiff filed an application for judicial review under the Planning Act 2008, challenging the Secretary of State for Business, Energy, and Industrial Strategy's approval of the North Vanguard

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<sup>249</sup> *Id.* at 6–7.

<sup>250</sup> *Id.* Concerns about offshore wind projects also have involved fisheries impacts. For a discussion of some of these concerns, see Lindsey Hutchison, *Issues in the Windustry: Mitigating Fishing Industry Concerns While Promoting Offshore Wind*, 37 J. ENV'T L. & LITIG. 285, 287 (2022).

<sup>251</sup> See *Siemens Gamesa Renewable Energy A/S v. Gen. Elec. Co.*, No. 21-10216-WGY, 2022 WL 2965682 (D. Mass. July 27, 2022). The Vineyard Wind Project also has been sued in *Responsible Offshore Development Alliance v. U.S. Department of the Interior*, filed in January 2022. See Complaint for Declaratory & Injunctive Relief, *Responsible Offshore Dev. All. v. U.S. Dep't of the Interior*, No. 22-237, 2022 WL 2870321 (D.D.C. 2022) (filed Jan. 31, 2022). For a discussion of this case, see *supra* Part I.

<sup>252</sup> Memorandum & Order at 12, *Siemens Gamesa Renewable Energy A/S v. Gen. Elec. Co.*, 2022 WL 2965682 (entered Feb. 2, 2023).

Offshore Wind Farm Order on July 1, 2020.<sup>253</sup> The plaintiff argued that the project did not consider cumulative impacts to the local community and questioned whether the defendant was required to do so when determining the Vanguard application.<sup>254</sup> The plaintiff also asserted that the reasons the defendant provided for not taking into consideration cumulative impacts during the Vanguard application were legally inadequate.<sup>255</sup>

In late February 2021, the court ruled for the plaintiff, concluding that a substation that was planned for the Vanguard project and a connected project had substantial objections lodged against it.<sup>256</sup> A year later, the Secretary of State reapproved the project.<sup>257</sup> The decision stated that “development [is] consistent with government policy and will contribute to the delivery of low-carbon and renewable energy, ensuring a secure, diverse and affordable energy supply in line with legal commitments to ‘net zero’ in the Paris Agreement.”<sup>258</sup> As of this writing, the community has not taken further action, but residents have stated in their local press that they will not be won over by cheaper energy bills.<sup>259</sup>

In Scotland, the Royal Society for the Protection of Birds (“RSPB”) filed a lawsuit in 2015, against the Scottish Ministers challenging approval of four offshore wind farms.<sup>260</sup> RSPB, Marine Scotland, Scottish Natural Heritage (now NatureScot), and the Joint Nature Conservation

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<sup>253</sup> *Pearce v. Sec’y of State for Bus. Energy & Indus. Strategy* [2021] EWHC 326 [1], [2] (UK).

<sup>254</sup> *Id.* at 2–3.

<sup>255</sup> *Id.* at 3, 20.

<sup>256</sup> *Norfolk Vanguard: Ministers Wrong over Wind Farm Go-Ahead, Says Judge*, BBC (Feb. 18, 2021), <https://www.bbc.co.uk/news/uk-england-norfolk-56115137> [<https://perma.cc/5SZD-3F8H>].

<sup>257</sup> See Letter from Gareth Leigh, Head of Energy Infrastructure Planning, Dep’t for Bus., Energy & Indus. Strategy to Jake Laws, Consents Manager, Vattenfall Wind Power Ltd., Planning Act 2008: Application for Development Consent for the Norfolk Vanguard Offshore Wind Farm (Feb. 11, 2022) [hereinafter Leigh Letter], <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-004458-NORV-SoS-decision-letter.pdf> [<https://perma.cc/3EUF-HUDX>]; The Norfolk Vanguard Offshore Wind Farm Order, 2022 No. 138 (Eng.), <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-004465-Norfolk-Vanguard-Offshore-Wind-Farm-Order-2022.pdf> [<https://perma.cc/4PTX-PMFW>]; *Norfolk Vanguard Offshore Wind Farm Re-Approved by Government*, BBC (Feb. 11, 2022), <https://www.bbc.co.uk/news/uk-england-norfolk-60349987> [<https://perma.cc/KJ85-QY7D>].

<sup>258</sup> Leigh Letter, *supra* note 257, at 7.

<sup>259</sup> Noah Vickers, *Campaigner: ‘Norfolk Villagers Won’t Accept Cash for Wind Farms’*, E. DAILY PRESS (Mar. 28, 2022), <https://www.edp24.co.uk/news/local-council/hempnall-wind-farms-turbines-cheaper-energy-bills-kwarteng-8787660> [<https://perma.cc/GU38-MPPJ>].

<sup>260</sup> *Forth and Tay Wind Farms*, RSPB, <https://www.rspb.org.uk/our-work/casework/cases/forth-and-tay-wind-farms/> [<https://perma.cc/C7X6-F6LP>] (last visited Apr. 12, 2023).

Committee expressed their concerns on the approval of these projects due to the projected impacts to wildlife.<sup>261</sup> In 2016, a court concluded that the approvals were flawed.<sup>262</sup> The Scottish Ministers appealed the decision, and, in May 2017, the 2016 decision was recalled and plans for the wind farm proceeded.<sup>263</sup>

## VI. EMERGING THEORIES IN OCEAN GOVERNANCE

Most of the developments in ocean litigation described in this Article relate to the enforcement of existing federal and sub-federal statutory commitments. Recently, however, there have been some promising developments that seek to address some of the gaps that remain despite ocean litigation in many contexts. The first development is the field of ocean justice, which draws on the momentum of the environmental and climate justice movements and seeks to apply some of those lessons and principles to the context of the marine environment. The second effort involves leveraging the momentum in the rights of nature movement to the marine environment. This part of the Article examines both of these trends.

### A. *Ocean Justice and the NOAA Fisheries Equity and Environmental Justice Strategy*

Much like Dr. Robert Bullard's<sup>264</sup> foundational role as a preeminent leader of the well-established environmental justice movement,<sup>265</sup> marine biologist Dr. Ayana Elizabeth Johnson<sup>266</sup> is a leader of the emerging field of ocean justice.<sup>267</sup> Dr. Johnson defines ocean justice as "where

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<sup>261</sup> *Id.*

<sup>262</sup> *Id.*

<sup>263</sup> Royal Soc'y for the Prot. of Birds v. Scottish Ministers (2017) CSIH 31, 233 (Scot.); *Forth and Tay Wind Farms*, *supra* note 260.

<sup>264</sup> For a description of Dr. Bullard's background and expertise, see *Biography*, DR. ROBERT BULLARD: FATHER OF ENV'T JUST., <https://drrobertbullard.com/biography/> [<https://perma.cc/WN4F-68UJ>] (last visited Apr. 12, 2023).

<sup>265</sup> Dr. Bullard has authored and edited several leading books and articles on the environment, such as *THE QUEST FOR ENVIRONMENTAL JUSTICE: HUMAN RIGHTS AND THE POLITICS OF POLLUTION* (2005) and *DUMPING IN DIXIE: RACE, CLASS, AND ENVIRONMENTAL QUALITY* (2000). *Biography*, *supra* note 264.

<sup>266</sup> For a description of Dr. Johnson's background and expertise, see AYANA ELIZABETH JOHNSON, <https://www.ayanaelizabeth.com/> [<https://perma.cc/K2ZN-G3SU>] (last visited Apr. 12, 2023).

<sup>267</sup> Beth Gardiner, *Ocean Justice: Where Social Equity and the Climate Fight Intersect*,

ocean conservation and social justice intersect.”<sup>268</sup> She provides additional context for understanding the focus of this field with the following explanation:

If we think about where is the water the most polluted, who gets impacted by storms, who is most dependent on the ocean and suffers when there’s overfishing, it often is poor communities and communities of color along the coast-line. When we think about ocean conservation, it can’t just be for the spots in front of fancy resorts or the homes of wealthy individuals. We should also be thinking about not just who bears the brunt of the impacts on the ocean, but who gets the benefit when we do take care of it.<sup>269</sup>

Dr. Johnson explains that although ethnic and racial minorities care a great deal about ocean conservation and climate change, it can be difficult for them to prioritize and advocate for the health of the ocean when their social and economic rights are regularly threatened.<sup>270</sup>

Ocean justice principles are starting to become more formalized and incorporated into federal policies. This trend follows in the footsteps of the environmental justice movement. The environmental justice movement traces its origins in federal law to President Clinton’s Executive Order.<sup>271</sup> This movement has gained significant momentum recently in federal government policies and initiatives in the Biden administration with the Justice40<sup>272</sup> and Inflation Reduction Act<sup>273</sup> goals and mandates on environmental justice protections.

On May 23, 2022, the White House Council on Environmental Quality released a report to Congress describing the Biden-Harris administration’s efforts to implement the recommendations from the White

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YALE ENV'T 360 (July 16, 2020), <https://e360.yale.edu/features/ocean-justice-where-social-equity-and-the-climate-fight-intersect> [<https://perma.cc/6MFK-X4UD>].

<sup>268</sup> *Id.*

<sup>269</sup> *Id.*

<sup>270</sup> *Id.*; see also Ayana Elizabeth Johnson, *What I Know About the Ocean: We Need Ocean Justice*, SIERRA (Dec. 12, 2020), <https://www.sierraclub.org/sierra/future-oceans-environmental-justice-climate-change> [<https://perma.cc/FBA6-DEP8>].

<sup>271</sup> Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994).

<sup>272</sup> See Shalanda Young, Brenda Mallory & Gina McCarthy, *The Path to Achieving Justice40*, WHITE HOUSE (July 20, 2021), <https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/> [<https://perma.cc/4BMZ-6SPG>].

<sup>273</sup> Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818.

House Environmental Justice Advisory Council (“WHEJAC”).<sup>274</sup> The WHEJAC was established by the Biden-Harris administration to tackle “longstanding environmental injustices and to ensure that marginalized, underserved, and overburdened communities have greater input on Federal policies and decisions.”<sup>275</sup> The WHEJAC’s recommendations encouraged federal agencies to initiate changes to protect communities who have been stripped of their rights to a clean environment.<sup>276</sup> Some of these recommendations include implementing clean energy in low-income communities, creating community-based transportation, expanding access to clean water, investing in disaster recovery, and relocating individuals and communities that live near toxic sites.<sup>277</sup>

In an agency first, NOAA Fisheries released a national strategy (the “EEJ Strategy”) on August 18, 2022, designed to advance equity and environmental justice (“EEJ”).<sup>278</sup> The goals of the EEJ Strategy, which seek to incorporate environmental justice into agency actions and procedures, are to: (1) prioritize identification, equitable treatment, and meaningful involvement of underserved communities, (2) provide equitable delivery of NOAA Fisheries’ services, and (3) prioritize EEJ in NOAA Fisheries mandated and mission work.<sup>279</sup> Progress on reaching these goals will be reported publicly on an annual basis and the agency will evaluate annual reports based on an EEJ Scorecard.<sup>280</sup>

The EEJ Strategy statement does not establish comprehensive enforcement and compliance mechanisms that would aid future ocean litigation efforts.<sup>281</sup> However, NOAA’s understanding that EEJ principles are embedded in or intersect with key agency statutes may provide litigants a better foothold in potential future lawsuits asserting claims grounded in environmental justice frameworks. Advocates for comprehensive regulation and protection of the marine environment may be

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<sup>274</sup> Press Release, White House, Biden-Harris Administration Outlines Historic Progress on Environmental Justice in Report Submitted to Congress (May 23, 2022), <https://www.whitehouse.gov/ceq/news-updates/2022/05/23/biden-harris-administration-outlines-historic-progress-on-environmental-justice-in-report-submitted-to-congress-2/> [<https://perma.cc/YS6W-DVCS>].

<sup>275</sup> *Id.*

<sup>276</sup> *Id.*

<sup>277</sup> *Id.*

<sup>278</sup> NOAA FISHERIES, EQUITY AND ENVIRONMENTAL JUSTICE STRATEGY 2, [https://media.fisheries.noaa.gov/2022-05/2022-05-NOAAFisheries-EEJ\\_508.pdf](https://media.fisheries.noaa.gov/2022-05/2022-05-NOAAFisheries-EEJ_508.pdf) [<https://perma.cc/U4FP-K5GW>] (last visited Apr. 12, 2023).

<sup>279</sup> *Id.* at Executive Summary.

<sup>280</sup> *Id.* at 8.

<sup>281</sup> *See id.* at Executive Summary.

able to draw on NOAA's stated desire to advance environmental justice issues in the ocean-climate nexus.

In the appendix of the EEJ Strategy, NOAA cites a number of statutes pursuant to which the agency derives its authority to develop and implement programs, policies, and other activities.<sup>282</sup> NOAA's position is that the statutes enabling the agency to act also "often intersect with EEJ considerations."<sup>283</sup>

### *B. Rights of Nature Movement and Ocean Rights*

Under the rights of nature doctrines, ecosystems are acknowledged as nonhuman rights-bearing entities, which are proactively subjected to legal rights equivalent to humans. Rights of nature confers a right to nature to defend itself in court against harms, including environmental degradation caused by development projects or climate change.<sup>284</sup> Ecosystems have the right to exist, flourish, regenerate vital cycles, and naturally evolve without human-caused disruption.<sup>285</sup> When an ecosystem is declared as a "subject of rights," it has the right to legal representation by a guardian who will act on its behalf and in its best interest.<sup>286</sup> Community members, organizations, local officials, lawyers, judges, tribal leaders, and state legislatures around the world work to incorporate these principles of Earth jurisprudence into various national laws, including federal and state legislation, local resolutions, and constitutional amendments.<sup>287</sup> As a leader in this global movement, Ecuador was the first, and remains the only, country to adopt a constitutional amendment for the rights of nature in 2008.<sup>288</sup> Ecuador embraced a guiding principle

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<sup>282</sup> *Id.* app. 2. These statutes are the Magnuson-Stevens Fishery Conservation and Management Act; Endangered Species Act; Fish and Wildlife Coordination Act; Marine Mammal Protection Act; National Environmental Policy Act; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and Oil Pollution Act (OPA).

<sup>283</sup> *Id.*

<sup>284</sup> Cassandra Tanti, "Ocean Rights, Like Human Rights, Is About Shifting Our Core Values", MONACOLIFE (Jan. 4, 2022), <https://monacolife.net/ocean-rights-like-human-rights-is-about-shifting-our-core-values/> [<https://perma.cc/NT3T-WS4J>].

<sup>285</sup> *Id.*

<sup>286</sup> *Id.*

<sup>287</sup> Marsha Jones Moutrie, *The Rights of Nature Movement in the United States: Community Organizing, Local Legislation, Court Challenges, Possible Lessons and Pathways*, 10 ENV'T & EARTH L.J. 5, 6 (2020).

<sup>288</sup> María Valeria Berros, *The Constitution of the Republic of Ecuador: Pachamama Has*

in seeking to implement its constitutional mandate protecting the rights of nature.<sup>289</sup>

In the United States, the rights of nature theory seeks to challenge the paradigm of nature as property for human benefit and seeks to advance a new understanding of nature as a rights-bearing entity.<sup>290</sup> This concept was originally federally referenced by U.S. Supreme Court Justice William O. Douglas in his dissenting opinion in *Sierra Club v. Morton*.<sup>291</sup> Justice Douglas stated that natural resources ought to have standing to sue for their own protection.<sup>292</sup>

Typically, rights of nature in the United States starts with non-profit organizations' education regarding laws and regulations for substantive and procedural rights applicable to local governmental levels (e.g., townships, large and small cities, and counties).<sup>293</sup> This type of Earth law would be most strongly supported through federal regulation, statutes, and rules, especially through a national constitutional amendment and international agreements.<sup>294</sup> However, due to federal inaction to establish and implement rights of nature protections, it is more common to see local communities invoke their rights to build healthier environments and grant nature inherent rights.<sup>295</sup>

As of summer 2022, only a few United States rights of nature cases addressed climate change and protection of marine species.<sup>296</sup> In *Colorado River Ecosystem v. State of Colorado*, filed in 2017, the attorney on behalf of the river unsuccessfully sought "to establish the river's rights and stated [that] climate change was a threat to the river's ability

*Rights*, 11 ENV'T & SOC'Y PORTAL, ARCADIA (2015).

<sup>289</sup> *Id.*

<sup>290</sup> *Rights of Nature Law and Policy*, U.N. HARMONY WITH NATURE INITIATIVE, <http://harmonywithnatureun.org/rightsOfNature/> [<https://perma.cc/9LRP-22KP>] (last visited Apr. 12, 2023).

<sup>291</sup> 405 U.S. 727, 741–52 (1972) (Douglas, J., dissenting).

<sup>292</sup> *Id.*

<sup>293</sup> ANTHONY R. ZELLE, GRANT WILSON, RACHELLE ADAM & HERMAN F. GREENE, *EARTH LAW: EMERGING ECOCENTRIC LAW—A GUIDE FOR PRACTITIONERS* 231 (2021); Moutrie, *supra* note 287, at 6.

<sup>294</sup> ZELLE ET AL., *supra* note 293, at 236.

<sup>295</sup> *Id.*

<sup>296</sup> Meryl Phair, *Animals, Plants Have Their Day in Court: "Rights of Nature" Makes a Legal Case for Climate Change*, SALON, <https://www.salon.com/2022/05/07/animals-plants-have-their-day-in-court-rights-of-nature-makes-a-legal-case-for-climate-change/> [<https://perma.cc/PJ7L-EDUD>] (May 12, 2022, 8:42 PM).



to thrive.”<sup>297</sup> The U.S. District Court for the District of Colorado dismissed the case.<sup>298</sup> In *Salmon v. Seattle*, the Sauk-Suiattle Tribe sued the City of Seattle on behalf of the salmon population.<sup>299</sup> The Indigenous community was speaking on behalf of the fish, claiming the dams violated the salmon population’s right to thrive. This case relies on rights of nature legal theory to seek its relief and is pending as of this writing.<sup>300</sup>

In December 2022, the rights of nature movement also made progress through declarations of rights for a marine species. For example, the Legal Rights of the Salish Sea joined with Earth Law Center to lead a campaign to recognize the inherent rights of the Southern Resident Orcas and work to protect and recover their population and the habitat ecosystem.<sup>301</sup> The Southern Resident Orcas are on the brink of extinction.<sup>302</sup> In a legal strategy to protect the orcas, the group drafted a Declaration of the Rights of Southern Residents resulting in active state-level security recognizing the population’s inherent rights, which not only includes the rights of the orcas, but also the rights of the ecosystems and Salish Sea, Fraser River Watershed, Columbia River Basin, and Snake River Watershed.<sup>303</sup> The extended protection is necessary because salmon, the orcas’ food, is essential to their survival.<sup>304</sup> The overall goal is to educate and build support for rights-based approaches, and promote changes in local, state, national, and international governance.<sup>305</sup>

Unlike the success in protecting the Rights of Southern Residents at the state level, the *Naruto v. Slater* federal court case has set current precedent that nonhuman animals are not “persons” and, therefore, lack statutory standing under Article III of the U.S. Constitution.<sup>306</sup> The court held that a macaque monkey may not sue for damages under the Copyright Act for alleged ownership of selfie photographs that the monkey

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<sup>297</sup> *Id.*

<sup>298</sup> *Id.*

<sup>299</sup> *Id.*

<sup>300</sup> *Id.*

<sup>301</sup> ZELLE ET AL., *supra* note 293, at 258; Michelle Bender & Elizabeth Dunne, *From Regulation to Responsibility: A Call to Recognize the Southern Resident Orcas’ Inherent Rights*, ENV’T COASTAL & OFFSHORE 97 (2022), <http://cdn.coverstand.com/9890/745267/43e9f6bb3f04a93b90fdaa2d6b80d3880a5ae690.4.pdf> [<https://perma.cc/UHL3-H2TK>].

<sup>302</sup> Bender & Dunne, *supra* note 301, at 97.

<sup>303</sup> *Id.*

<sup>304</sup> *Id.*

<sup>305</sup> *Id.*

<sup>306</sup> *Naruto v. Slater*, 888 F.3d 418, 418 (9th Cir. 2018).

took in the Indonesian rainforest.<sup>307</sup> In denying standing in the case, the court relied on *Cetacean Community v. Bush*, which evaluated statutory standing for animals and stated that the absence of any plain statement in the ESA, MMPA, NEPA, or Administrative Procedure Act declaring animals' statutory standing confirmed that cetaceans do not have statutory standing.<sup>308</sup> The cetacean community plaintiffs (whales, porpoises, and dolphins) sued President Bush alleging that the Navy violated the ESA, the MMPA, and NEPA through the use of Surveillance Towed Array Sensor System Low Frequency Active Sonar during wartime or heightened threat conditions.<sup>309</sup> The court dismissed the case, stating that no court had ever held that a nonhuman animal had standing to sue on its own behalf.<sup>310</sup>

Rights of nature theory is also applied to seek to protect the marine environment and marine species, which is referred to as ocean rights.<sup>311</sup> The declaration of ocean rights would be implemented like human rights and rights of nature.<sup>312</sup> It gives oceans legal status and the fundamental right to be protected.<sup>313</sup> If an entity lacks rights under the law, it is a resource, property, or utility.<sup>314</sup> Ocean rights and rights of nature only differ in the types of climate impacts at issue and the regional ecosystem-based solutions needed. Ocean rights are a strategic approach to improving the environment through an interconnected balance of ecosystem conservation and human needs.<sup>315</sup>

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<sup>307</sup> *Id.*

<sup>308</sup> *Id.* at 425–26 (citing *Cetacean Cmty. v. Bush*, 386 F.3d 1169, 1179 (9th Cir. 2004)).

<sup>309</sup> *Cetacean Cmty.*, 386 F.3d at 1171.

<sup>310</sup> *Id.* at 1178–79. A similar case is *Citizens to End Animal Suffering & Exploitation v. New England Aquarium*, which involved a suit under the MMPA protesting a dolphin's transfer from the aquarium to the Department of the Navy. 836 F. Supp. 45, 46 (D. Mass. 1993). The court held that the plaintiffs failed to offer sufficient evidence of harm to establish standing. *Id.* at 51. By contrast, the Supreme Court of the Philippines held that, in accordance with environmental law, every Filipino is entitled to act as a legal guardian of nature and, therefore, the plaintiff had standing to sue. *Resident Marine Mammals for the Protected Seascape Tanon Strait v. Secretary Angelo Reyes*, G.R. No. 180771 (Apr. 21, 2015) (Phil.), [https://lawphil.net/judjuris/juri2015/apr2015/gr\\_180771\\_so\\_2015.html](https://lawphil.net/judjuris/juri2015/apr2015/gr_180771_so_2015.html) [<https://perma.cc/MQ37-DPJW>].

<sup>311</sup> See Tanti, *supra* note 284.

<sup>312</sup> *Id.*

<sup>313</sup> *Id.*

<sup>314</sup> *Id.* (quoting Michelle Bender).

<sup>315</sup> Michelle Bender, *An Introduction to Ocean Rights*, WORLD OCEAN F., MEDIUM (Oct. 22, 2018), <https://medium.com/world-ocean-forum/an-introduction-to-ocean-rights-2f82e05fbedf> [<https://perma.cc/Z84C-EBBA>].

Governments, organizations, and other Earth law advocates are working to expand and strengthen conservation measures for saltwater and freshwater areas. Treating the ocean as a human and establishing standards and criteria for productive decision-making will support a successful environmental recovery and protection.<sup>316</sup> Oceans should be treated and valued as living beings and right-based protections seek to fulfill that objective.<sup>317</sup>

Nearly two-thirds of the world's oceans are not under national jurisdiction;<sup>318</sup> therefore, coordinated international action is necessary to protect ocean health.<sup>319</sup> Rights of nature theory asserts that marine ecosystems have intrinsic value apart from humans' interests in them, have a right to perform all their natural functions, and have a right to have a voice in decisions that affect their health and survival.<sup>320</sup>

For example, various organizations launched movements seeking to protect the rights of the Great Barrier Reef off the coast of Australia.<sup>321</sup> The effects of global warming and climate change have permanently degraded the Great Barrier Reef.<sup>322</sup> Coral reefs are endangered by pollution, ocean warming, and ocean acidification caused by human activity.<sup>323</sup> By 2030, 90% of coral reefs will be threatened, and by 2050, almost all coral reefs will be threatened.<sup>324</sup> Threats include physical damage from coastal development and industry construction, sedimentation, nutrients (nitrogen and phosphorous), pathogens (from sewage, stormwater, and

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<sup>316</sup> *Id.*

<sup>317</sup> *Id.*

<sup>318</sup> INT'L UNION FOR CONSERVATION OF NATURE, GOVERNING AREAS BEYOND NATIONAL JURISDICTION 1 (2022), [https://www.iucn.org/sites/default/files/2022-07/issues\\_brief\\_governing\\_areas\\_beyond\\_national\\_jurisdiction.pdf](https://www.iucn.org/sites/default/files/2022-07/issues_brief_governing_areas_beyond_national_jurisdiction.pdf) [<https://perma.cc/LC46-NAZR>].

<sup>319</sup> MICHELLE BENDER, EARTH L. CTR., THE EARTH LAW FRAMEWORK FOR MARINE PROTECTED AREAS 10, app. A § 1.3, <https://static1.squarespace.com/static/55914fd1e4b01fb0b851a814/t/5adca14b352f538288f4ea67/1524408668126/Final+Draft+3.pdf> [<https://perma.cc/G45D-EUBZ>] (last visited Apr. 12, 2023).

<sup>320</sup> *Id.* at 50, app. D.

<sup>321</sup> *Great Barrier Reef Foundation*, UNESCO WORLD HERITAGE CONVENTION, <https://whc.unesco.org/en/partners/491> [<https://perma.cc/CWU9-WZ4U>] (last visited Apr. 12, 2023).

<sup>322</sup> Chris Mooney, *Global Warming Has Changed the Great Barrier Reef Forever, Scientists Say*, WASH. POST (Apr. 18, 2018, 1:00 PM), <https://www.washingtonpost.com/news/energy-environment/wp/2018/04/18/global-warming-has-changed-the-great-barrier-reef-forever-scientists-say/> [<https://perma.cc/V4VV-HUR2>].

<sup>323</sup> Mehrose Akhtar, *Rights for the Coral Reefs*, EARTH L. CTR. (May 16, 2019), <https://www.earthlawcenter.org/blog-entries/2019/5/rights-for-the-coral-reefs> [<https://perma.cc/7N8G-J6DJ>].

<sup>324</sup> *Id.*

runoffs), toxic substances, plastic debris and pollution, overfishing, and coral harvesting.<sup>325</sup> Organizations are still seeking legal personhood protection, which consists of legal rights to protect against mistreatment.<sup>326</sup>

In July 2020, citizens of Spain submitted a popular legislative initiative that sought to recognize the right of the Mar Menor lagoon to maintain its health and be protected and preserved by the government.<sup>327</sup> Mar Menor lagoon is the largest saltwater lagoon in Europe and within the Mediterranean Sea.<sup>328</sup> The lagoon was threatened by pollution and ecological damage for decades through agricultural and mining activities, poor sewage systems, inadequate regulations, and the lack of environmental protection.<sup>329</sup> In 2016, extreme eutrophication killed 85% of the seagrass and thousands of fish in the lagoon.<sup>330</sup> The popular legislative initiative is a mechanism that allows citizens to propose new laws.<sup>331</sup> On July 13, 2022, the Commission of Ecological Transition and Demographic Challenge of the Congress of Deputies ruled that the Mar Menor and its basin are a legal personality with a right to be protected.<sup>332</sup> The Spanish Congress Deputies declared that nonhuman animals, including household

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<sup>325</sup> *Id.*

<sup>326</sup> Jason P. Kight & T.S. Johnson, *Legal Personhood: An Analysis of the Legal Rights of Corporations and Their Relationship to Animal Ethics*, 12 J. ANIMAL ETHICS 23, 23 (2022); see also Ruth Barcan, *The Campaign for Legal Personhood for the Great Barrier Reef: Finding Political and Pedagogical Value in a Spectacular Failure of Care*, 3 EPE: NATURE & SPACE 810, 812–13, 817 (2019) (discussing Environmental Defenders Office of Northern Queensland's 2014 campaign to expand legal definitions of personhood to protect the Great Barrier Reef).

<sup>327</sup> *Rights of Nature Case Study: Mar Menor Lagoon*, ANIMA MUNDI L. INITIATIVE, <http://files.harmonywithnatureun.org/uploads/upload1139.pdf> [<https://perma.cc/H2MZ-HZSU>] (Feb. 2021).

<sup>328</sup> *Id.*

<sup>329</sup> *Id.*; Conor McGlone, *Polluted Lagoon Set to Become First Ecosystem in Europe with Its Own Rights*, INST. ENG'G & TECH. (Apr. 11, 2022), <https://eandt.theiet.org/content/articles/2022/04/polluted-lagoon-set-to-become-first-ecosystem-in-europe-with-own-legal-rights/> [<https://perma.cc/QW6D-CQWW>].

<sup>330</sup> *Rights of Nature Case Study: Mar Menor Lagoon*, *supra* note 327; McGlone, *supra* note 329.

<sup>331</sup> *Rights of Nature Case Study: Mar Menor Lagoon*, *supra* note 327 (noting that new laws in Spain must be enacted pursuant to Article 87(30) of the Spanish Constitution).

<sup>332</sup> Peter McLaren-Kennedy, *European First as Mar Menor Ecosystem Recognized as Legal Entity with Rights*, EUROWEEKLY NEWS (July 13, 2022, 8:45 PM), <https://euroweeklynews.com/2022/07/13/european-first-as-mar-menor-ecosystem-recognised-as-legal-entity-with-rights/> [<https://perma.cc/F5KB-A862>]; *Spain: Legal Rights for Mar Menor Ecosystem in European First*, STOP ECOCIDE INT'L (Apr. 5, 2022), <https://www.stopecocide.org/new-breaking-news-summary/spain-legal-rights-for-mar-menor-ecosystem-in-european-first> [<https://perma.cc/9VS7-T52D>].

companions and members of wild species, are no longer considered objects, but rather are sentient beings by law.<sup>333</sup> Mar Menor is now represented by legal guardians, a monitoring committee of protectors, and a scientific advisory board.<sup>334</sup>

Another approach in environmental law and policy advocacy is movement lawyering. Movement lawyering in the rights of nature context is a critical feature of how the rights of nature theory makes an impact. Movement lawyering seeks to work within social movements to fight for systemic change.<sup>335</sup> Traditional legal work seeks to enforce statutes, rules, and regulations, whereas movement lawyering works to progressively motivate changes that are relevant for societal well-being and social justice.<sup>336</sup> Social justice includes respectful practices of law where lawyers reflect on and scrutinize their own work and consider racism, sexism, homophobia, classism, and elitism in advocating for law reform.<sup>337</sup>

There are several problems and challenges with the implementation of rights of nature laws at the local, state, and federal levels. There is significant resistance from industries that oppose rights of nature protections, fearing that recognition of such rights will negatively impact their business models and profits.<sup>338</sup> Western legal systems also firmly resist rights of nature protections because they prefer a system of property rights and classify nature as human property, rather than as having independent personhood.<sup>339</sup> Moreover, it is challenging for politicians in these property-centric governance systems to promote an earth-centered world-view, rather than a human-centric one, due to fears of lifestyle and consumption implications for humans.<sup>340</sup>

## VII. FUTURE DIRECTIONS AND RECOMMENDATIONS

The case examples described above confirm two realities. First, litigation to protect the marine environment has merely nibbled at the edges in seeking to address pervasive threats to the marine environment.

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<sup>333</sup> *Animals Gain Legal Protections in Spain*, EARTH L. CTR. (Feb. 15, 2022), <https://www.earthlawcenter.org/blog-entries/2022/2/animals-gain-legal-protections-in-spain> [<https://perma.cc/YG9K-3K2N>].

<sup>334</sup> *Rights of Nature Case Study: Mar Menor Lagoon*, *supra* note 327.

<sup>335</sup> ZELLE ET AL., *supra* note 293, at 233.

<sup>336</sup> *Id.* at 233–34.

<sup>337</sup> *Id.* at 234.

<sup>338</sup> *Id.*

<sup>339</sup> *Id.* at 258.

<sup>340</sup> *Id.*

Second, ocean litigation has become increasingly intertwined with climate change issues within the past decade.

These two realities provide a foundation for the two policy recommendations in this Article. First, ocean litigation can benefit from embracing some of the creative litigation theories in the climate litigation context. Like climate litigation, it is difficult for ocean litigation to improve the marine environment one case at a time. Ocean litigation needs to be used as a tool to goad legislative action to protect the marine environment on a broader scale and secure protections for vulnerable human and nonhuman communities.

Second, given the interconnections between ocean and climate governance, ocean litigation efforts also would benefit from embracing the ocean-climate nexus as a new foundation for future litigation to protect the marine environment. Examples of this connection are evident in the draft treaties on plastic pollution<sup>341</sup> and biodiversity beyond national jurisdiction (“BBNJ”),<sup>342</sup> both of which could serve as a platform for future litigation, much like the role that the Paris Agreement<sup>343</sup> has played for climate litigation.

#### A. *Lessons from Creative Climate Litigation Theories*

Climate litigation has exploded in the past two decades and has accelerated since the Paris Agreement was adopted in 2015.<sup>344</sup> These lawsuits seek accountability from governmental and private-sector defendants. The suits have relied on a wide range of statutory, constitutional, common law, and human rights theories. These cases have increased

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<sup>341</sup> For a discussion of the implications of the proposed plastic pollution treaty on potential future ocean litigation, see *Rush of Lawsuits over Plastic Waste Expected After ‘Historic’ Deal*, GUARDIAN (Mar. 9, 2022, 9:46 AM), <https://www.theguardian.com/environment/2022/mar/09/lawsuits-plastic-waste-expected-historic-deal> [<https://perma.cc/F2DQ-BK2E>].

<sup>342</sup> For a discussion of the status of negotiations on the BBNJ treaty, see Minna Epps, *Key Takeaways from Treaty Negotiations for Biodiversity Beyond National Jurisdiction (BBNJ) United Nations HQ, New York*, IUCN (Aug. 31, 2022), <https://www.iucn.org/blog/202208/key-takeaways-treaty-negotiations-biodiversity-beyond-national-jurisdiction-bbnj-united> [<https://perma.cc/884L-7PST>].

<sup>343</sup> Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

<sup>344</sup> JOANA SETZER & CATHERINE HIGHAM, GLOBAL TRENDS IN CLIMATE CHANGE LITIGATION: 2022 SNAPSHOT 1 (2022), <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/08/Global-trends-in-climate-change-litigation-2022-snapshot.pdf> [<https://perma.cc/8QG3-HGG4>].

dramatically around the world in the past decade; however, the United States accounts for about 75% of the cases.<sup>345</sup>

In the United States, creative theories have been employed in suits against the federal government. In *Massachusetts v. EPA*,<sup>346</sup> the U.S. Supreme Court concluded that the Commonwealth of Massachusetts had standing to seek to compel the EPA to regulate carbon dioxide emissions from new motor vehicles, even when the agency had decided not to do so in the exercise of its administrative discretion.<sup>347</sup> The Commonwealth of Massachusetts brought its claim on behalf of its citizens to seek a remedy for the loss of coastal land in the state due to sea level rise, which is caused by global climate change.<sup>348</sup> This “special solicitude” of the state to bring claims on behalf of its citizens was a significant component of the Court’s analysis in granting standing in the case.<sup>349</sup>

The Court concluded that this alleged injury was both “actual” and “imminent” because it was occurring and was likely to continue to occur.<sup>350</sup> It was also “concrete and particularized” and not abstract or conjectural because it involved scientifically demonstrable loss of land in the state.<sup>351</sup> The second element, causation, was easily established because the defendant, the EPA, conceded it.<sup>352</sup> The final element, redressability, also was satisfied.<sup>353</sup> The Court concluded that although the EPA regulations addressing carbon dioxide emissions from new motor vehicles would not stop the loss of coastal land in Massachusetts from sea level rise, it would help slow the rate of loss of that land ever so slightly, which the Court deemed sufficient to meet the redressability standard.<sup>354</sup> On the merits, the Court concluded that the EPA has the authority to regulate carbon dioxide as an air pollutant for emissions from new motor vehicles.<sup>355</sup>

The success in *Massachusetts v. EPA* in creative climate litigation against the federal government was tempered by two subsequent developments. First, the implementation stage following the case was stalled in the courts for almost a decade before the Obama administration issued

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<sup>345</sup> *Id.* at 2.

<sup>346</sup> 549 U.S. 497, 497 (2007).

<sup>347</sup> *Id.* at 498, 516–26.

<sup>348</sup> *Id.* at 499, 522–23.

<sup>349</sup> *Id.* at 520.

<sup>350</sup> *Id.* at 498–99, 521.

<sup>351</sup> *Id.* at 522.

<sup>352</sup> *Massachusetts*, 549 U.S. at 523.

<sup>353</sup> *Id.* at 521–26.

<sup>354</sup> *See id.*

<sup>355</sup> *See id.* at 528–35.

the Clean Power Plan, which itself became the subject of litigation in the transitions between the Obama and Trump administrations and the Trump and Biden administrations.<sup>356</sup> Ultimately, the *West Virginia v. EPA* decision limited the scope of the EPA's potential authority to regulate climate change under the CAA.<sup>357</sup>

The second development, several years after the victory in *Massachusetts v. EPA*, was a common law and constitutional law-based case filed by a group of youth plaintiffs in *Juliana v. United States*.<sup>358</sup> The *Juliana* case has attracted international attention and has inspired similar cases to be filed against governments around the world.<sup>359</sup> The youth plaintiffs' litigation theory, known as "atmospheric trust litigation," asserted an expansive reading of the common law public trust doctrine (to include federal government stewardship of the atmosphere) and the U.S. Constitution (to recognize a right to a stable climate under the Due Process Clause of the Fifth Amendment).<sup>360</sup> The plaintiffs in *Juliana* sought a comprehensive injunctive remedy in the case—a climate recovery plan—based on these ambitious common law and constitutional law theories.<sup>361</sup>

Judge Aiken's landmark 2016 decision in the U.S. District Court for the District of Oregon<sup>362</sup> offered great hope for atmospheric trust litigation like in *Juliana* and in companion litigation in state courts. In denying the federal government's motion to dismiss, Judge Aiken determined that the atmospheric trust dimensions of the youth plaintiffs' arguments—and the rights-based arguments under the U.S. Constitution—deserved to proceed to trial.<sup>363</sup> Judge Aiken's reasoning to support her decision is

<sup>356</sup> See, e.g., Steven Mufson, *Federal Court Scraps Trump Administration's Power Plant Rule*, WASH. POST (Jan. 19, 2021, 6:27 PM), <https://www.washingtonpost.com/climate-environment/2021/01/19/federal-circuit-court-scraps-trump-administration-power-plant-rules/> [https://perma.cc/RT3R-URKQ].

<sup>357</sup> See *West Virginia v. EPA*, 142 S. Ct. 2587, 2594–95 (2022) (holding that the Obama Administration's Clean Power Plan exceeded congressional authority by pushing utilities to make system-wide transitions away from coal power generation and toward clean and renewable sources of electricity production).

<sup>358</sup> 947 F.3d 1159, 1165 (9th Cir. 2020).

<sup>359</sup> For updates and summaries of these cases in the United States and around the world, see OUR CHILD.'S TR., <https://www.ourchildrenstrust.org/> [https://perma.cc/8BKT-NZPN] (last visited Apr. 12, 2023).

<sup>360</sup> For a discussion of the historical and conceptual foundations of the *Juliana* case, see Randall S. Abate, *Atmospheric Trust Litigation: Foundation for a Constitutional Right to a Stable Climate System?*, 10 GEO. WASH. J. ENERGY & ENV'T L. 33, 33 (2019).

<sup>361</sup> *Id.*; Michael C. Blumm & Mary Christina Wood, "No Ordinary Lawsuit": *Climate Change, Due Process, and the Public Trust Doctrine*, 67 AM. U. L. REV. 1, 1–2 (2017).

<sup>362</sup> *Juliana v. United States*, 217 F. Supp. 3d 1224, 1233 (D. Or. 2016).

<sup>363</sup> *Id.* at 1261.



perhaps the most wholehearted embrace of the merits of a creative climate litigation case anywhere in the world. Judge Aiken also did not support dismissal of the case on standing grounds.<sup>364</sup> The case was set for trial on October 29, 2018.<sup>365</sup>

After more than two years of unusual procedural gamesmanship from the federal government seeking to have the case dismissed,<sup>366</sup> the Ninth Circuit ultimately dismissed the case in January 2020.<sup>367</sup> Although the court concluded that the plaintiffs met the injury and causation elements of standing, it held that the plaintiffs failed to meet the redressability element.<sup>368</sup> The court determined that the youth plaintiffs' requested remedy to order the federal government to adopt "a comprehensive scheme to decrease fossil fuel emissions and combat climate change" would exceed a federal court's remedial authority and thus failed to meet the redressability element of standing.<sup>369</sup>

Nevertheless, the *Juliana* case succeeded in at least two important ways. First, it helped inspire a burgeoning climate justice movement led by active youth engagement in the United States that continues to influence policies at the federal and state levels.<sup>370</sup> Second, several cases were filed in state court based on aspects of the theory in *Juliana*. One of these cases, *Held v. State*,<sup>371</sup> is proceeding to trial as of this writing.<sup>372</sup> A similar case in Canada, *Mathur v. Her Majesty the Queen in Right of Ontario*,<sup>373</sup> which was inspired by *Juliana*, is also proceeding to trial as of this writing.<sup>374</sup>

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<sup>364</sup> *Id.*

<sup>365</sup> See *Year in Review*, OUR CHILD.'S TR., <https://www.ourchildrenstrust.org/yearinreview> [<https://perma.cc/Z4MN-2DRU>] (last visited Apr. 12, 2023).

<sup>366</sup> See RANDALL S. ABATE, CLIMATE CHANGE AND THE VOICELESS: FUTURE GENERATIONS, WILDLIFE, AND NATURAL RESOURCES 68–74 (2019) (discussing this unprecedented procedural history in the wake of Judge Aiken's decision).

<sup>367</sup> *Juliana v. United States*, 947 F.3d 1159, 1160, 1175 (9th Cir. 2020).

<sup>368</sup> *Id.* at 1175

<sup>369</sup> *Id.* at 1171.

<sup>370</sup> *Youth v. Gov: Juliana v. U.S.*, OUR CHILD.'S TR., <https://www.ourchildrenstrust.org/juliana-v-us> [<https://perma.cc/EDT3-UPDS>] (last visited Apr. 12, 2023).

<sup>371</sup> Order Denying Motion to Dismiss, *Held v. State*, No. CDV-2020-307 (Mont. Dist. Ct. Aug. 4, 2021).

<sup>372</sup> For a detailed analysis of the *Held* case co-authored by two of the attorneys for the plaintiffs in the case, see Nate Bellinger & Roger Sullivan, *A Judicial Duty: Interpreting and Enforcing Montanans' Inalienable Right to a Clean and Healthful Environment*, 45 PUB. LAND & RES. L. REV. 1, 3 (2022).

<sup>373</sup> *Mathur v. Her Majesty the Queen in Right of Ontario*, 2020 ONSC CV-19-00631627 (Can.).

<sup>374</sup> For a discussion of *Held* and *Mathur* and their significance for youth and Indigenous

Climate litigation in the United States also has involved creative common law claims against private sector defendants. The first involved a suit by states seeking injunctive relief to compel the nation's largest power plants to reduce their carbon emissions by a certain percentage.<sup>375</sup> In *American Electric Power Co. v. Connecticut*, the U.S. Supreme Court upheld the denial of this requested injunctive relief on federal displacement grounds.<sup>376</sup>

The theory in *American Electric Power* was subsequently retooled in lawsuits by impacted communities seeking damages on public nuisance grounds for climate change impacts.<sup>377</sup> Plaintiffs in this line of creative common law climate litigation cases continued to be stymied by standing and jurisdictional barriers in cases against private sector defendants. For example, in *Native Village of Kivalina v. ExxonMobil Corp.*, the plaintiffs, a federally recognized Native Alaskan village of approximately four hundred residents, live on a remote and narrow strip of land seventy miles north of the Arctic Circle, situated between a sea and a lagoon.<sup>378</sup> This land is severely compromised by sea level rise and coastal erosion.<sup>379</sup> The U.S. Army Corps of Engineers projected that the area would no longer be inhabitable within a few decades and estimated the cost of relocating the community ten miles inland at approximately \$400 million.<sup>380</sup> The community filed suit against twenty-three of the leading multinational oil and gas companies, seeking damages for their contribution to global climate change which, in turn, accelerated the demise of this Native Alaskan village.<sup>381</sup>

The Ninth Circuit affirmed the District Court's dismissal of the case, holding that the plaintiffs lacked standing to bring the claim and

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climate justice litigation, see Randall S. Abate, *Youth and Indigenous Voices in Climate Justice: Leveraging Best Practices from U.S. and Canadian Litigation*, 45 PUB. LAND & RES. L. REV. 65, 78, 81 (2022).

<sup>375</sup> Complaint at 2, *Conn. v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005) (No. 1:04-cv-05669) (filed July 21, 2004).

<sup>376</sup> 564 U.S. 410, 424 (2011).

<sup>377</sup> See, e.g., *Comer v. Murphy Oil U.S.A.*, 585 F.3d 855 (5th Cir. 2009), *vacated*, 598 F.2d 208 (5th Cir. 2010) (en banc); *Native Village of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849 (9th Cir. 2012), *cert. denied*, 569 U.S. 2000 (2013).

<sup>378</sup> *Kivalina*, 696 F.3d at 868–69.

<sup>379</sup> *Id.* at 856.

<sup>380</sup> Melia Robinson, *This Remote Alaskan Village Could Disappear Under Water Within 10 Years—Here's What Life Is Like There*, BUS. INSIDER (Sept. 27, 2017, 11:00 AM), <https://www.businessinsider.com/what-life-is-like-in-kivalina-alaska-2017-9> [<https://perma.cc/7V8Z-5KTU>].

<sup>381</sup> *Kivalina*, 696 F.3d. at 856.

that the court lacked jurisdiction to hear the case based on the political question doctrine.<sup>382</sup> The court concluded that the plaintiffs failed on the causation element of standing because they could not show plausible traceability from the defendants' actions to their injuries.<sup>383</sup> The Ninth Circuit failed to apply *Massachusetts v. EPA* to recognize the unique capacity of the federally recognized Native Village of Kivalina as a quasi-sovereign entity that should have been able to benefit from the "special solicitude" reasoning in *Massachusetts v. EPA* to bring the case on behalf of its people and avoid dismissal on standing grounds.<sup>384</sup>

Despite the setbacks and ultimate defeats that these cases faced in the courts, creative climate litigation theories against private sector defendants in the United States have succeeded in other ways. First, these efforts have provided a foundation for potential future relief in asserting similar theories in the courts. For example, if the Native Village of Kivalina had the benefit of the more advanced climate attribution science that supports climate litigation in 2023, the Ninth Circuit may not have had the causation concerns it expressed in dismissing the case on standing grounds.<sup>385</sup> As such, causation barriers will be less daunting in future climate justice cases in U.S. courts because of advances in climate attribution science. Second, these accountability theories in cases against private sector defendants have continued to be refined and are starting to show promise of success in two new lines of creative climate litigation in the United States and abroad.

To ensure the opportunity for potential success in a new line of creative climate accountability cases against private sector defendants, the plaintiffs embraced two lessons. The first was the need to file these claims in state court in light of the federal displacement reasoning in the *American Electric Power* decision. The second was that the plaintiffs needed stronger science to connect the contributions of these multinational corporations to specific global climate change impacts. Climate attribution science<sup>386</sup> now supported connections between these private

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<sup>382</sup> *Id.* at 854.

<sup>383</sup> *Id.* at 868 (Pro, J., concurring).

<sup>384</sup> See 549 U.S. 497, 514 (2007).

<sup>385</sup> The IPCC's Sixth Assessment report in August 2021 has had a positive impact on climate litigation. See IPCC SIXTH ASSESSMENT REPORT, CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS 204 (2021), <https://www.ipcc.ch/report/ar6/wg1/> [<https://perma.cc/X88S-FL88>].

<sup>386</sup> A 2014 article is considered to have been instrumental in this breakthrough in climate attribution science. See Richard Heede, *Tracing Anthropogenic Carbon Dioxide and*

sector actors' greenhouse gas emissions that contributed to global climate change and specific weather events that were happening at the local level throughout the world.<sup>387</sup> On the strength of these two adjustments in litigation theory, a new line of accountability cases emerged.

Since 2017, more than a dozen county and municipal governments have filed accountability suits against fossil fuel companies for damages resulting from climate change.<sup>388</sup> Similar suits have been filed by the attorneys general of some states and the District of Columbia.<sup>389</sup> The plaintiffs in these cases seek to recover the climate adaptation costs they face in response to a wide range of climate change impacts including sea level rise, flooding, and wildfires.<sup>390</sup>

The plaintiffs in these cases assert a combination of theories including public nuisance, private nuisance, negligence, trespass, failure to warn, and consumer protection.<sup>391</sup> The plaintiffs face several obstacles: (1) overcoming defendants' efforts to remove these cases to federal court, (2) determining whether and to what extent harmful impacts associated with climate change can be attributed to specific actors or conduct, and (3) avoiding dismissal on political question doctrine grounds.

One of the California counties involved in one of these cases is Marin County. The Marin County supervisor, Kate Sears, described the equitable foundation of the complaint, saying that the case was about

*Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010*, 122 CLIMATIC CHANGE 229, 229 (2014).

<sup>387</sup> Another significant development in climate attribution science occurred in the wake of Hurricane Harvey. See, e.g., Henry Fountain, *Scientists Link Hurricane Harvey's Record Rainfall to Climate Change*, N.Y. TIMES (Dec. 13, 2017), <https://www.nytimes.com/2017/12/13/climate/hurricane-harvey-climate-change.html> [<https://perma.cc/QSL4-XXB5>] (noting that “[t]wo research groups found that the record rainfall as Harvey stalled over Texas in late August, which totaled more than 50 inches in some areas, was as much as 38 percent higher than would be expected in a world that was not warming”).

<sup>388</sup> City and counties in California, Colorado, Maryland, New Jersey, New York, and Washington have filed suits as of this writing. See *Status of Climate Liability Lawsuits*, PAY UP CLIMATE POLLUTERS, CLIMATE INTEGRITY PROJ. (Aug. 31, 2020), [https://payupclimatepolluters.org/uploads/media/ClimateLiabilityLawsuits\\_8-31-20.pdf](https://payupclimatepolluters.org/uploads/media/ClimateLiabilityLawsuits_8-31-20.pdf) [<https://perma.cc/VNJ5-PCQ6>].

<sup>389</sup> For a description of the status of this line of cases, see *id.*; David Hasemyer, *Fossil Fuels on Trial: Where the Major Climate Change Lawsuits Stand Today*, INSIDE CLIMATE NEWS (Jan. 17, 2020), <https://insideclimatenews.org/news/04042018/climate-change-fossil-fuel-company-lawsuits-timeline-exxon-children-california-cities-attorney-general> [<https://perma.cc/6T6P-24YS>].

<sup>390</sup> See, e.g., *Status of Climate Liability Lawsuits*, *supra* note 388.

<sup>391</sup> *Id.*

“what they knew, when they knew it, and what they did with that information.”<sup>392</sup> Sears “further observed that instead of sharing what they knew with the public, which might have provided the public with an opportunity to make choices different from those that were made, these companies instead launched campaigns to create doubt about whether climate change was real” and to obscure the issues.<sup>393</sup>

The pivotal case in this line of cases is *Baltimore v. BP P.L.C.*,<sup>394</sup> in which the city alleged that defendants’ products, and a campaign to deceive the public that spanned decades, have made the city vulnerable to a range of threats from climate change, including flooding, extreme weather, and sea-level rise.<sup>395</sup> The city relied on state law claims, including public and private nuisance, negligent failure to warn with respect to these companies’ production and sale of fossil fuels, and deceiving the public about its implications for climate change.<sup>396</sup> The estimated cost for Baltimore’s climate adaptation costs is \$123.9 million.<sup>397</sup>

After an initial setback in a decision that was determined on a technical procedural basis that this line of cases should not yet be remanded to state court,<sup>398</sup> five decisions in 2022 from federal circuit courts—as of this writing—have concluded that these cases should proceed to trial in state court.<sup>399</sup> These cases have a strong chance of success at trial in state

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<sup>392</sup> Randall S. Abate, *Anthropocene Accountability Litigation: Confronting Common Enemies to Promote a Just Transition*, 46 COLUM. J. ENV'T L. 225, 289 (2021).

<sup>393</sup> *Id.* For additional information on the Marin County lawsuit, see Richard Halstead, *Two Bay Area Counties Sue 37 Fossil Fuel Companies over Sea-Rise*, MERCURY NEWS, <https://www.mercurynews.com/2017/07/17/two-bay-area-counties-file-complaint-against-oil-companies-over-sea-rise/> [https://perma.cc/PX22-ZVAE] (July 18, 2017, 4:02 PM).

<sup>394</sup> Mayor & City Council of Baltimore’s Motion to Remand, *Baltimore v. BP P.L.C.*, 388 F. Supp. 3d 538 (D. Md. 2019) (1:18-cv-02357) (filed Sept. 11, 2018).

<sup>395</sup> *Id.* at 1, 3–4.

<sup>396</sup> *Id.* at 1, 5.

<sup>397</sup> *Appeals Court: Baltimore Climate Damages Lawsuit Against Big Oil Will Stay in State Court*, CTR. FOR CLIMATE INTEGRITY (Mar. 6, 2020), <https://climateintegrity.org/news/appeals-court-baltimore-climate-damages-lawsuit-against-big-oil-will-stay-in-state-court/> [https://perma.cc/MC6G-PA3S].

<sup>398</sup> *BP P.L.C. v. Mayor & City Council of Baltimore*, 141 S. Ct. 1532, 1533 (2021) (holding that the Fourth Circuit erred in concluding that its review of the remand order was limited to determining whether the defendants properly removed the case under the federal officer removal statute).

<sup>399</sup> *Bd. of Cnty. Comm’rs of Boulder Cnty. v. Suncor Energy (U.S.A.) Inc.*, 25 F.4th 1238, 1275 (10th Cir. 2022); *Mayor & City Council of Baltimore v. BP P.L.C.*, 31 F.4th 178, 238 (4th Cir. 2022); *Cnty. of San Mateo v. Chevron Corp.*, 32 F.4th 733, 764 (9th Cir. 2022); *Rhode Island v. Shell Oil Prods. Co.*, 35 F.4th 44, 62 (1st Cir. 2022); *City & Cnty. of Honolulu v. Sunoco*, 39 F.4th 1101, 1113 (9th Cir. 2022).

court due to several factors: (1) the strength of climate attribution science, (2) the evidence of what these fossil fuel industry defendants knew and how they tried to deceive the public about the implications of the science supporting the plaintiffs' claims,<sup>400</sup> and (3) the state court proceedings will not be bound by the unfavorable federal law precedent and federal displacement reasoning from *American Electric Power* and *Kivalina*.

The *BP v. Baltimore* line of climate adaptation cost recovery cases involves, among many other requested grounds for relief, claims against fossil fuel industry defendants for deceiving the public regarding the impacts of their activities.<sup>401</sup> These claims have given rise to a new line of cases against governments and private sector defendants seeking relief for behavior that has come to be known as climate washing.<sup>402</sup> Climate washing is a type of greenwashing.<sup>403</sup> Greenwashing is defined as “unsubstantiated or misleading claims regarding an actor’s environmental performance.”<sup>404</sup> Climate washing is a related term that “might go beyond or be more specific than environmental concerns”<sup>405</sup> as it is focused on climate change–related representations only and not assertions regarding environmental performance and impacts overall.<sup>406</sup>

Climate washing litigation is considered to be one of six major categories of climate litigation.<sup>407</sup> The false claims at issue in climate

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<sup>400</sup> Efforts to mislead are relevant in determining whether there has been a public nuisance. *Bd. of Cty. Comm’rs of Boulder*, 25 F.4th at 1238; *Mayor & City Council of Baltimore v. BP P.L.C.*, 31 F.4th at 178; *Cnty. of San Mateo*, 32 F.4th at 733; *Rhode Island*, 35 F.4th at 44.

<sup>401</sup> See, e.g., *BP P.L.C.*, 141 S. Ct. at 1532.

<sup>402</sup> Jennifer Hijazi, ‘Climate-Washing’ Brawls Will Target New Sectors, Governments, BLOOMBERG L. (Jan. 14, 2022, 6:00 AM), <https://news.bloomberglaw.com/environment-and-energy/climate-washing-brawls-will-target-new-sectors-governments> [<https://perma.cc/HQ7B-SZYD>].

<sup>403</sup> Akriti Bhargava, Karla Martínez Toral & Aradhna Tandon, *Climate Washing: Legal Liability for the New Green-Washing?*, ENERGY TRANSITION (June 30, 2022), <https://energytransition.org/2022/06/climate-washing-legal-liability-for-the-new-green-washing/> [<https://perma.cc/7KYX-ZNCH>].

<sup>404</sup> AKRITI BHARGAVA, BENJAMIN FRANTA, KARLA MARTÍNEZ TORAL & ARADHNA TANDON, CLIMATE SOC. SCI. NETWORK, CLIMATE-WASHING LITIGATION: LEGAL LIABILITY FOR MISLEADING CLIMATE COMMUNICATIONS 4 (2022), <https://cssn.org/wp-content/uploads/2022/01/CSSN-Research-Report-2022-1-Climate-Washing-Litigation-Legal-Liability-for-Misleading-Climate-Communications.pdf> [<https://perma.cc/3BVW-X7BS>].

<sup>405</sup> *Id.*

<sup>406</sup> *Id.*

<sup>407</sup> Subodh Mishra, *The Rise of Climate Litigation*, HARVARD L. SCH. F. ON CORP. GOVERNANCE (Mar. 3, 2020), <https://corpgov.law.harvard.edu/2022/03/03/the-rise-of-climate-litigation/> [<https://perma.cc/MYX7-MH5L>].

washing litigation generally fall into one of three categories: (1) commitments, (2) descriptions, or (3) disclosures.<sup>408</sup> The goal of climate-washing litigation is to hold parties accountable for actions or products that misleadingly or falsely claim to address climate change.<sup>409</sup>

Climate washing cases in the United States are only in the early stages as of this writing, but they are showing some preliminary signs of progress.<sup>410</sup> In May 2022, in *Commonwealth v. Exxon Mobil*,<sup>411</sup> a Massachusetts state court denied Exxon Mobil's attempt to dismiss a greenwashing lawsuit under the state's Anti-Strategic Lawsuit Against Public Participation (known as Anti-SLAPP) statute. Similarly, a month later in *Earth Island Institute v. BlueTriton Brands*, the District of Columbia Superior Court denied BlueTriton's motion to dismiss in a lawsuit alleging that BlueTriton was violating the District of Columbia's Consumer Protection Procedures Act, which prohibits deceptive and unconscionable business practices.<sup>412</sup> In addition, ClientEarth and other environmental organizations sued Washington Gas in Washington, D.C., in August 2022, for misleading characterizations of its "clean and sustainable" natural gas.<sup>413</sup>

Creative litigation theories are just beginning to be applied to the marine environment in recent years. Although the public nuisance theory has not yet prevailed in climate litigation in suits seeking injunctive relief or damages, the theory most recently has been employed to seek relief against the plastics industry. In February 2020, in *Earth Island Institute v. Crystal Geyser Water Co.*, Earth Island Institute ("EII") filed lawsuits against Coca-Cola, Pepsi, Nestle, and other major producers of plastic.<sup>414</sup> EII is seeking relief from the defendants under California laws

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<sup>408</sup> Chris Kidd, *Climate Litigation Update: Climate-Washing Comes Ashore*, INCE (Feb. 28, 2022), <https://www.incegd.com/en/news-insights/energy-infrastructure-climate-litigation-update-climate-washing-comes-ashore> [https://perma.cc/9BAZ-T5DY].

<sup>409</sup> *Id.*

<sup>410</sup> See Katherine Harrington & Rebecca Jordan, *Greenwashing Lawsuits Against Major Oil and Gas Companies Are Getting the Green Light to Move Forward in Litigation*, JD SUPRA (Aug. 15, 2022), <https://www.jdsupra.com/legalnews/greenwashing-lawsuits-against-major-oil-5160022/> [https://perma.cc/BT35-Y2SS]; see also BHARGAVA ET AL., *supra* note 404, at 6–13 (discussing climate washing cases outside the United States).

<sup>411</sup> 187 N.E.3d 393, 734 (Mass. 2022).

<sup>412</sup> 583 F. Supp. 3d 105, 105 (D.C. Super. Ct. 2022).

<sup>413</sup> *We're Joining Legal Action Against Greenwashing Ads by a DC Gas Company*, CLIENTEARTH (Aug. 4, 2022), <https://www.clientearth.org/latest/latest-updates/news/we-re-joining-legal-action-against-greenwashing-ads-by-a-dc-gas-company/> [https://perma.cc/5HCG-R8ZN].

<sup>414</sup> Complaint for (1) Violations of the California Consumers Legal Remedies Act; (2)

for public nuisance, products liability (including failure to warn and design defect), negligence, breach of express warranty, and unlawful practices under the California Consumer Legal Remedies Act.<sup>415</sup> EII also contends that its members have been deprived of the “ability to enjoy and utilize the ocean environment, and [have] experienced harm to their aesthetic interests.”<sup>416</sup> Additionally, the suit alleged the cost and burden that California has shouldered in removing plastics from beaches.<sup>417</sup> Specifically, the state has expended resources to: (1) develop and disseminate accurate information about the limitations of recycling and the impact of plastic use, and (2) protect and sustain marine life that has been “choked, starved, poisoned, or suffocated by plastic.”<sup>418</sup>

EII’s claims center on torts that occurred in California waterways and coasts, *not* oceanic waters, navigable waters of the United States, federal enclaves, or the waters of multiple states. The court rejected defendants’ assertion that the court had maritime or admiralty jurisdiction over the issue because the “situs” of EII’s claims was limited to California.<sup>419</sup> The court denied defendant’s motion to dismiss, holding that the California courts had personal jurisdiction over the defendants, paving the way for this landmark case to proceed.<sup>420</sup> *Earth Island Institute v.*

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Public Nuisance; (3) Breach of Express Warranty; (4) Strict Liability—Failure to Warn; (5) Strict Liability—Design Defect; (6) Negligence; and (7) Negligence—Failure to Warn at 5, 15, *Earth Island Inst. v. Crystal Geysers Water Co.*, 521 F. Supp. 3d 863 (N.D. Cal. 2021) (No. 20-CIV-01218) (filed Feb. 26, 2020); *Earth Island Inst.*, 521 F. Supp. 3d at 867–68 (summarizing EII’s claims in its 2020 suit against these defendants).

<sup>415</sup> Complaint at 49, 50, 52–53, 55, 57, 59, *Earth Island Inst.*, 521 F. Supp. 3d at 863 (No. 20-CIV-01218) (filed Feb. 26, 2020).

<sup>416</sup> Complaint at 55, *Earth Island Inst.*, 521 F. Supp. 3d at 863 (No. 20-CIV-01218) (filed Feb. 26, 2020).

<sup>417</sup> *Id.* at 10.

<sup>418</sup> *Id.*

<sup>419</sup> *Earth Island Inst.*, 521 F. Supp. 3d at 879 (citing *Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Co.*, 513 U.S. 527, 534 (1995)).

<sup>420</sup> *Coca-Cola, PepsiCo, Major Consumer Goods Companies Must Face Plastic Pollution Lawsuit Brought by Environmental Group in California*, EARTH ISLAND (June 6, 2022), <https://www.earthisland.org/index.php/news/entry/coca-cola-pepsico-major-consumer-goods-companies-must-face-plastic-pollution-lawsuit-brought-by-environmental-group-in-california> [https://perma.cc/9KXK-6ZU7]; see also Zoe Loftus-Farren, *Earth Island Sues 10 Companies, Including Coke, Pepsi, and Nestle, over Plastic Use*, EARTH ISLAND J. (Feb. 26, 2020), <https://www.earthisland.org/journal/index.php/articles/entry/earth-island-coke-pepsi-nestle-plastic-pollution-lawsuit/> [https://perma.cc/WFW2-VYR2] (suggesting that suing major corporations that profit from the sale of single use plastics is a



*Crystal Geyser Water Co.* has the potential to shape how ocean litigation cases can be developed in the future.<sup>421</sup>

These recent developments in creative theories in the ocean litigation context need to proceed in a more deliberate and collaborative manner with climate litigation developments. The breakthrough in having cases heard in state court in the *BP v. Baltimore* line of cases applies equally to the ocean litigation context, yet these two lines of cases have proceeded on parallel and unrelated tracks in the courts. Likewise, connecting climate change claims to marine environment impacts—and marine environment claims to climate change impacts—makes the claims in each context stronger through such collaboration. For example, a climate washing suit against a government may involve both climate and marine environment dimensions relating to mischaracterizations of progress toward commitments on climate goals. Ocean litigation can gain more traction in looking to developments in climate litigation and seeking to partner in future climate litigation efforts as appropriate.

### B. *The Ocean-Climate Nexus as a Way Forward*

The ocean-climate nexus has attracted significant attention in recent years. The 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (“COP26”) in November 2021,<sup>422</sup> and the United Nations Ocean Conference in June 2022, hosted several sessions to address this issue.<sup>423</sup> This Part addresses three contexts

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viable strategy for interested parties to recoup some of the costs of cleaning such plastics out of oceans and waterways and mitigating harm to humans and wildlife).

<sup>421</sup> For further discussion of EII’s case and its potential implications, see Sierre Anton, *Big Problem for Big Plastic? Suit Against Plastic Producers Remains in State Court*, NAT. SEA GRANT L. CTR. (June 24, 2021), <https://nsglc.olemiss.edu/blog/2021/jun/24/index.html> [<https://perma.cc/46YJ-LTZG>].

<sup>422</sup> An ocean-climate nexus discussion took place in advance of COP21 at the Joint COP26 Presidency Event. See *Informal Consultation on Oceans and Climate Summary*, JOINT COP26 PRESIDENCY EVENT (June 29, 2021), <https://unfccc.int/sites/default/files/resource/Joint%20COP26%20Presidency%20Event%20Summary.pdf> [<https://perma.cc/W33Y-28DE>]. A number of participants voiced support for reoccurring ocean-climate dialogue. *Id.* Adaptation, mitigation, and government-led solutions were topics of discussion; however, litigation and compliance mechanisms were not addressed. *Id.* These efforts nonetheless represent a valuable first step.

<sup>423</sup> See Gemma Parkes, *2022 UN Ocean Conference Sets Off New Wave of Ocean Action*, WORLD ECON. F. (July 8, 2022), <https://www.weforum.org/agenda/2022/07/2022-un-ocean-conference-sets-off-new-wave-of-ocean-action/> [<https://perma.cc/J735-TCE5>] (underscoring ocean-climate nexus, ocean finance, and ocean justice as key outcomes from the conference and as a foundation for future initiatives).

in which the ocean-climate nexus affords potentially fruitful opportunities for collaboration to secure mutual gains for climate change and ocean governance: (1) capitalizing on the draft plastic pollution and BBNJ treaties for future ocean litigation, (2) incorporating human rights and justice components from climate litigation into ocean litigation, and (3) leveraging offshore wind and nature-based solutions to strengthen the ocean climate nexus.

The ocean-climate nexus is at the heart of negotiations for the draft treaties on plastic pollution and BBNJ.<sup>424</sup> Both of these challenges are currently the subject of significant global treaty negotiations, each of which has made significant progress toward a binding and highly significant instrument of international law.<sup>425</sup> Plastic pollution and protection of high seas biodiversity also rely heavily on marine science, which is important to both climate and ocean governance. Climate and ocean governance could secure mutual gains by collaborating in this effort as the opportunities and limitations of attribution science are significant to climate and ocean governance and to potential future litigation in each of these fields.<sup>426</sup>

To the extent that one or both of these treaties is ultimately adopted, there would be opportunities to use the commitments established in these treaty regimes as a foundation for litigation. The Paris Agreement has been particularly valuable in this regard in climate litigation

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<sup>424</sup> MICHAEL SCHULZ, HUGUES GOOSE, EILEEN HOFMANN, PIERRE-YVES LE TRAON, SUSAN LOZIER, BARIS SALIHOGLU & ISABEL SOUSA PINTO, OCEAN CLIMATE NEXUS, THE CRITICAL ROLE OF OCEAN SCIENCE IN RESPONDING TO CLIMATE CHANGE: A CALL FROM THE OCEAN RESEARCH COMMUNITY, [https://www.marineboard.eu/ocean-climate-nexus/sites/marineboard.eu.ocean-climate-nexus/files/public/The%20Ocean-Climate%20Nexus\\_Con-sensus%20Statement.pdf](https://www.marineboard.eu/ocean-climate-nexus/sites/marineboard.eu.ocean-climate-nexus/files/public/The%20Ocean-Climate%20Nexus_Con-sensus%20Statement.pdf) [<https://perma.cc/2Q83-YVB8>] (last visited Apr. 12, 2023).

<sup>425</sup> Eva Matescot, *International Meetings for the Environment in 2022: What Are the Challenges for the Ocean-Climate-Biodiversity Nexus?*, OCEAN & CLIMATE PLATFORM (Mar. 4, 2022), <https://ocean-climate.org/en/international-meetings-for-the-environment-in-2022-what-are-the-challenges-for-the-ocean-climate-biodiversity-nexus/> [<https://perma.cc/6S3S-7ZM3>]. See also *IMO Welcomes New Oceans Treaty*, INT'L MAR. ORG. (Mar. 6, 2023), <https://www.imo.org/en/MediaCentre/PressBriefings/pages/BBNJ-treaty-.aspx#:~:text=The%20new%20legally%20binding%20international,headquarters%20in%20New%20York%2C%20United> [<https://perma.cc/LTS9-8X6Y>] (BBNJ treaty agreement reached in March 2023).

<sup>426</sup> See, e.g., JACOB ELKIN, SABIN CTR. CLIMATE CHANGE L., CLIMATE SCIENCE IN ADAPTATION LITIGATION IN THE U.S. 2–4, 6–7 (2022), [https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1193&context=sabin\\_climate\\_change](https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1193&context=sabin_climate_change) [<https://perma.cc/K3J2-VBT5>]; Stephen Minas, *The Ocean-Climate Nexus in the Unfolding Anthropocene: Addressing Environmental Challenges Through International Law and Cooperation*, in CHARTING ENVIRONMENTAL LAW FUTURES IN THE ANTHROPOCENE 83, 83–84 (Michelle Lim ed., 2019).

since its adoption in 2015.<sup>427</sup> Failure to fulfill, or make meaningful progress toward fulfilling, commitments in the Paris Agreement has established a legal foothold for relief in many of these cases.<sup>428</sup> The same would be true for future cases that seek to uphold commitments in a plastic pollution or BBNJ treaty, which would be mutually beneficial for climate and ocean governance objectives.

In much the same way that litigation to protect the marine environment can learn from creative climate litigation theories, the ocean-climate nexus can be enriched by looking to the various components of climate litigation claims. Climate litigation has relied heavily in the past decade on human rights-based claims to support theories of relief.<sup>429</sup> Likewise, the Global Network for Human Rights and the Environment provided commentary on the ocean-climate nexus at COP26.<sup>430</sup> Much of the ocean-climate nexus discourse focuses on the need to develop an integrated regulatory approach within and between governments.<sup>431</sup> What is missing is a clear enforcement and compliance mechanism, and penalties for breaching parties. Thus, bringing successful cases can be a challenge when there is an absence of regulation.<sup>432</sup>

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<sup>427</sup> See Minas, *supra* note 426, at 90–91.

<sup>428</sup> *Id.* at 87, 90, 92–93.

<sup>429</sup> See, e.g., Jacqueline Peel & Hari M. Osofsky, *Sue to Adapt?*, 99 MINN. L. REV. 2177, 2223, 2235–36 (2015) (noting that class action suits have been filed against corporations and governments for damages to victims of fires and floods where the defendants' "actions or inaction" led to harm and suggesting that taking sea level rise and coastal flooding into consideration when developing infrastructure could be a focus of ocean justice lawsuits to compel more effective disaster planning to promote resilience of vulnerable coastal communities).

<sup>430</sup> Astrid Milena Bernal, *COP26: Reflections on Human Rights at the Ocean-Climate Nexus*, GLOB. NETWORK FOR HUM. RTS. & THE ENV'T (Dec. 8, 2021), <https://gnhre.org/community/cop26-reflections-on-human-rights-at-the-ocean-climate-nexus/> [<https://perma.cc/U9XZ-7DPJ>].

<sup>431</sup> *Id.* (explaining that "[t]he lack of integrated approaches to this [ocean-climate] nexus impedes effective protection of the marine environment and leaves out a crucial area of international cooperation and national action for climate mitigation and adaptation" and emphasizing the need for States to establish laws to protect communities that are disproportionately impacted by ocean acidification from unjustified and foreseeable violations of their human rights).

<sup>432</sup> See also Kate McKenzie, *Climate Change Litigation at COP26: Why It May Matter Also for the Climate-Ocean Nexus?*, ONE OCEAN HUB (Nov. 22, 2021), <https://oneoceanhub.org/climate-change-litigation-at-cop26-why-may-it-matter-also-for-the-climate-ocean-nexus/> [<https://perma.cc/7GXS-72R7>] (considering whether the due diligence requirements under UNCLOS could bolster due diligence arguments made in climate change litigation before national courts, where there is a direct ocean-related component of the climate change harms asserted in the lawsuits); Elise Johansen, *The Role of the Law of the Sea*

Another critical component of the ocean-climate nexus is exploration of ocean-based climate solutions through investment in the marine environment (e.g., wind farms) and securing nature-based solutions to climate change through preservation and restoration of the marine environment and coastal habitats.<sup>433</sup> Offshore wind presents a challenge and potential opportunity in seeking to leverage the ocean-climate nexus for the benefit of both contexts. The transition to clean and renewable energy is underway in the United States across many sectors of the economy.<sup>434</sup> Federal government support for implementation of many major offshore wind facilities in the near future offers great promise to secure significant progress in transitioning away from fossil fuel dependence in the U.S. energy system.<sup>435</sup> However, these potential benefits are offset by many real and perceived concerns about the impacts of these facilities on the marine environment, including threats to coastal aesthetics, endangered species, and fisheries.

There is an opportunity to secure a win-win approach in seeking to reconcile the clashes between ocean and climate governance objectives with offshore wind. A streamlined environmental impact assessment model can help expedite the approval of these projects while providing due consideration of potential impacts to the marine environment. In much the same way that marine environmental impacts are considered in the Navy's efforts to ensure national security, a similar streamlined process could apply to review of potential offshore wind projects' impacts to the marine environment. In these "green vs. green" disputes, it would

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*in Climate Change Litigation*, 11 Y.B. POLAR L. ONLINE 141, 141 (2020) (examining how UNCLOS can be utilized in climate change litigation involving the ocean and noting that general obligations established in Part XII of UNCLOS represent an untapped resource to legal obligations in climate litigation); Natalie Klein, *Adapting UNCLOS Dispute Settlement to Address Climate Change*, in RESEARCH HANDBOOK ON CLIMATE CHANGE, OCEANS AND COASTS 94, 94–96 (Jan McDonald, Jeffrey McGee & Richard Barnes eds., 2020) (discussing potential claims for climate change under UNCLOS and examining how barriers to such claims may be overcome).

<sup>433</sup> *Checking in on Ocean-Based Climate Solutions*, WORLD OCEAN INITIATIVE (Nov. 8, 2021), <https://ocean.economist.com/innovation/articles/checking-in-on-ocean-basedclimate-solutions> [https://perma.cc/V9T6-HNUF].

<sup>434</sup> Steve Cohen, *The Transition to Environmental Stability is Underway, But It Won't Be Easy*, COLUM. CLIMATE SCH. (Jan. 3, 2023), <https://news.climate.columbia.edu/2023/01/03/the-transition-to-environmental-sustainability-is-underway-but-it-wont-be-easy/> [https://perma.cc/5CPA-TP6H].

<sup>435</sup> Press Release, Off. of Energy Efficiency & Renewable Energy, Other Wind Energy Funding Opportunities, <https://www.energy.gov/eere/wind/other-wind-energy-funding-opportunities> [https://perma.cc/8P6B-Z2UE] (last visited Apr. 12, 2023).

be counterproductive for the “perfect to be the enemy of the good.” Climate change is the greatest existential threat to human and nonhuman communities alike and it would be unfortunate for minor impacts to one aspect of the marine environment to stall or halt the pursuit of a major transition away from fossil fuel dependence, which is in the best interest of all parties. Offshore wind energy achieves a high degree of climate change mitigation,<sup>436</sup> so some impacts to the marine environment must be accepted, just like some impacts to the marine environment are accepted during wartime to ensure the Navy can be fully prepared to mobilize to protect national security interests.

Nature-based solutions also present win-win opportunities. The Biden administration’s “30 by 30” initiative is one example of how effective marine conservation goals are important in their own right for the marine environment.<sup>437</sup> These goals also enhance climate governance objectives in building climate change adaptation and resilience. Healthy marine ecosystems protected by measures like marine protected areas<sup>438</sup> are better equipped to remain resilient in the face of climate change-related threats such as invasive species and biodiversity loss.<sup>439</sup>

## CONCLUSION

This Article reviewed recent successes and obstacles in using litigation as a tool to address concerns across several contexts in the marine environment. The case examples revealed two underlying themes. First, litigation to protect the marine environment has proceeded in a piecemeal manner at best in seeking to address pervasive threats to marine biodiversity. Second, climate change issues have taken center stage in ocean litigation within the past decade.

These two realities provide a valuable opportunity for cross-pollination and collaboration between climate change and ocean litigation efforts. First, ocean litigation can benefit from embracing some of the

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<sup>436</sup> *Climate Change and Offshore Wind: Tackling the Climate Crisis*, N.Y. STATE OFFSHORE WIND, <https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Climate-Change-and-Offshore-Wind> [<https://perma.cc/CHS8-28VL>] (last visited Apr. 12, 2023).

<sup>437</sup> See *America the Beautiful: Spotlighting the Work to Restore, Connect and Conserve 30 Percent of Lands and Waters by 2030*, U.S. DEP'T OF THE INTERIOR, <https://www.doi.gov/priorities/america-the-beautiful> [<https://perma.cc/4ASC-JN2C>] (last visited Apr. 12, 2023).

<sup>438</sup> See Danielle Smith, *A Global Network of MPAs: An Important Tool in Addressing Climate Change*, in RESEARCH HANDBOOK ON CLIMATE CHANGE, OCEANS AND COASTS 425, 425–26 (Jan McDonald, Jeffrey McGee & Richard Barnes eds., 2020).

<sup>439</sup> *Id.* at 426, 432, 436.

creative litigation theories in the climate litigation context. Like climate litigation, it is difficult for ocean litigation to improve the marine environment one case at a time. Ocean litigation needs to be used as a tool to goad legislative action to protect the marine environment on a broader scale. It also can be used to secure protections for vulnerable human and nonhuman communities. To fulfill this objective, ocean litigation should draw on the justice focus of climate litigation through enhanced efforts to incorporate ocean justice as a foundation for future litigation to protect the marine environment and the communities that rely on it.

Second, given the interconnections between ocean and climate governance, ocean litigation efforts also would benefit from embracing the ocean-climate nexus as a new foundation for future litigation to protect the marine environment. Discussions about the ocean-climate nexus are on the rise at all levels of governance. Examples of this connection are evident in the draft treaties on plastic pollution and BBNJ, both of which could serve as a platform for future litigation, much like the role that the Paris Agreement has played for climate litigation. Valuable ocean-climate connections also should be leveraged in the offshore wind and nature-based solutions contexts to enhance protection of the marine environment while advancing critical climate governance objectives. Enhanced attention to the ocean-climate nexus can help ensure that these two fields work synergistically and avoid short-sighted successes for one movement that ultimately undermine the long-term goals of the other movement.