

ARTICLES

# U.S. AQUACULTURE'S PROMISE: POLICY PRONOUNCEMENTS AND LITIGATION PROBLEMS

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## SUMMARY

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On May 7, President Donald Trump issued Executive Order No. 13921, Promoting American Seafood Competitiveness and Economic Growth, stating that it is U.S. policy to “facilitate aquaculture projects through regulatory transparency and long-term strategic planning.” To further this policy, the Order directs the U.S. Army Corps of Engineers to create a nationwide permit for aquaculture operations, and tasks the National Oceanic and Atmospheric Administration (NOAA) with a variety of planning- and permit-related responsibilities. This Article explores the decades-long effort to formulate a national aquaculture policy, the current regulatory framework for aquaculture planning and permitting, the court battles over these efforts, and congressional and executive responses to the litigation and the challenges and opportunities that aquaculture presents.

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Climate change and overfishing, coupled with the continued rise in the global population, have increased pressure on wild-caught fish stocks around the world.<sup>1</sup> With more than four billion people relying on seafood as their primary source of protein and micronutrients, many look to aquaculture as a potential solution to this rising demand.<sup>2</sup> Aquaculture has the potential to generate jobs, create revenue, reduce the seafood trade deficit, and create a stable domestic source of seafood,<sup>3</sup> yet the United States ranks 16th in total production.<sup>4</sup> Analysts observe that with the second-largest exclu-

sive economic zone (EEZ) in the world, the United States could meet its seafood demand by developing just 0.01% of the EEZ.<sup>5</sup>

Decisionmaking in coastal and offshore aquaculture is multijurisdictional and requires many permits and environmental reviews based on myriad federal, state, and local laws. Aquaculture proponents see this lack of a cohesive policy and plethora of regulations as a primary barrier to aquaculture expansion.<sup>6</sup> The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Army Corps of Engineers (the Corps) have responded, respectively, by implementing a planning and permitting framework in federal waters<sup>7</sup> and developing a nationwide permit (NWP) under the Clean Water Act (CWA)<sup>8</sup> used heavily in state waters.

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1. *Summary for Policymakers*, in IPCC SPECIAL REPORT ON THE OCEAN AND CRYOSPHERE IN A CHANGING CLIMATE 1 (Hans-Otto Pörtner et al. eds., Intergovernmental Panel on Climate Change 2019), [https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/03\\_SROCC\\_SPM\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/03_SROCC_SPM_FINAL.pdf).
  2. H. Charles J. Godfray et al., *Food Security: The Challenge of Feeding 9 Billion People*, 327 SCIENCE 812-18 (2010); Carlos M. Duarte et al., *Will the Oceans Help Feed Humanity?*, 59 BIOSCIENCE 967-76 (2009), available at <https://academic.oup.com/bioscience/article-lookup/doi/10.1525/bio.2009.59.11.8>.
  3. Sarah E. Lester et al., *Offshore Aquaculture in the United States: Untapped Potential in Need of Smart Policy*, 115 PROC. NAT'L ACAD. SCI. U.S. AM. 7162-65 (2018).
  4. National Oceanic and Atmospheric Administration (NOAA) Fisheries, *Global Aquaculture*, <https://www.fisheries.noaa.gov/national/aquaculture/>

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5. global-aquaculture (last updated May 22, 2019); FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, THE STATE OF WORLD FISHERIES AND AQUACULTURE 2016 (2016), <http://www.fao.org/3/a-i5555e.pdf>.
  6. Rebecca R. Gentry et al., *Mapping the Global Potential for Marine Aquaculture*, 1 NATURE ECOLOGY & EVOLUTION 1317-24 (2017).
  7. Tapan Banerjee, *The National Aquaculture Act of 1980*, 6 FISHERIES 18 (1981); Lester et al., *supra* note 3.
  8. “Federal waters” refers to the marine area beyond state jurisdiction (typically out to three miles) out to 200 miles.

Aquaculture opponents argue that aquaculture will threaten, not relieve pressure on, wild stocks, will dislocate existing fishing economies, and will have environmental impacts that agencies are not examining sufficiently. These stakeholders have challenged NOAA and Corps actions. In *Gulf Fishermens Ass'n v. National Marine Fisheries Service*, plaintiffs challenged NOAA's asserted authority over offshore aquaculture.<sup>9</sup> In three separate cases, plaintiffs successfully challenged the Corps NWP 48 as applied in Washington State.

Part I of this Article summarizes a 2005 comprehensive policy review and proposal for a national aquaculture program. Part II reviews (1) state water permitting, using Washington State as an example, (2) the Corps NWP 48 as an effort to streamline aquaculture permitting, and (3) recent litigation to prohibit the Corps from using this NWP in Washington State. Part III examines federal water permitting, NOAA's Gulf of Mexico Aquaculture Fishery Management Plan (FMP), and litigation to invalidate that plan. Parts IV and V, respectively, examine congressional and executive branch actions following the litigation and stakeholder responses. Part VI concludes with some analysis.

## I. Aquaculture Policy Development

From 1999-2001, NOAA and the National Sea Grant program funded an eight-member team of ocean and policy/law specialists, aquaculture scientists, and an aquaculture industry member. The team comprehensively examined the issues that would arise from expanding the aquaculture industry beyond state waters into the federally managed EEZ.<sup>10</sup> An advisory committee of individuals from the U.S. Congress, state and federal agencies, the aquaculture and fishing industries, and environmental groups provided feedback and advice.<sup>11</sup> The team's report distilled desirable attributes of a national offshore aquaculture policy focused on the federal waters from the limits of state control to the 200-mile limit of the U.S. EEZ. In 2005, the team updated its review.<sup>12</sup> The 2005 final policy proposal outlined:

- an administrative framework, centered on NOAA as lead agency,<sup>13</sup> capable of “executing” the report's recommended aquaculture policy and programs;

9. No. 19-30006, 50 ELR 20182 (5th Cir. Aug. 3, 2020).

10. For a discussion of this early policy review, see BILIANA CICIN-SAIN ET AL., UNIVERSITY OF DELAWARE, RECOMMENDATIONS FOR AN OPERATIONAL FRAMEWORK FOR OFFSHORE AQUACULTURE IN U.S. FEDERAL WATERS 9 (2005). The team studied 19 earlier aquaculture policy reviews; 6 case studies of operating offshore aquaculture facilities; 22 coastal states' and territories' and 8 other countries' aquaculture experiences; and the work of the Food and Agriculture Organization of the United Nations and the International Council for the Exploration of the Seas and other international organizations. *Id.* at 9.

11. *Id.*

12. *Id.* The update included a review of findings from the U.S. Ocean Policy Commission, President Bush's U.S. Ocean Action Plan, the Pew Oceans Commission, the National Offshore Aquaculture Act of 2005 (S. 1195, 109th Cong. (2005)), and the U.S. Environmental Protection Agency's (EPA's) effluent limitation guidelines. *Id.*

13. *Id.* at vi.

- guiding principles and an offshore aquaculture leasing and permitting system to increase predictability, efficiency, and accountability for developing offshore aquaculture<sup>14</sup>;
- necessary planning and assessment to site offshore aquaculture facilities, including using geographic information systems (GIS) and marine zoning (spatial planning);
- offshore aquaculture's potential environmental consequences and mitigation;
- a monitoring strategy to detect impacts to environmental quality; and
- guidelines and options to achieve regulatory compliance, including agency enforcement.<sup>15</sup>

Before the team issued its report, Sen. Ted Stevens (R-Alaska) and Sen. Daniel Inouye (D-Haw.) introduced comprehensive legislation that addressed many of the issues identified in the report,<sup>16</sup> but Congress did not pass the legislation. The report's findings provide context for the discussion below of permitting, streamlining efforts, litigation, and the Executive Order.

## II. State Waters

The permitting process for these operations and who has the authority to regulate is complex and often unclear.<sup>17</sup> Table 1 identifies key federal and state approvals required for an aquaculture operation. This analysis uses Washington State, the location of the NWP litigation, to illustrate this framework; other states have similar permitting, review, and leasing requirements.

On the federal level, the Corps requires a permit for discharges into U.S. waters under §404 of the CWA. The Corps also requires a permit under §10 when working in navigable waters. The U.S. Environmental Protection Agency (EPA) has the authority under CWA to veto §404 permits, although they rarely do so. EPA also requires a permit under CWA §402 for discharges from aquaculture operations. Depending on the project, U.S. Coast Guard permits for bridges and private aids to navigation may also be needed.

Under the federal Enabling Act and Washington State Constitution, the Washington Department of Natural Resources manages approximately 2.6 million acres of state-owned aquatic lands and is the decisionmaker for

14. A consolidated application for all federal permits required was a central feature of this recommendation.

15. *Id.*

16. *Id.* at v.

17. *Id.* For an analysis by a libertarian think-tank that reaches a similar conclusion, see ARTHUR R. WARDLE, FARMING THE OCEANS: OPPORTUNITIES AND REGULATORY CHALLENGES FOR U.S. MARINE AQUACULTURE DEVELOPMENT (Reason Foundation, Policy Brief No. 142, 2017), [https://reason.org/wp-content/uploads/files/aquaculture\\_fisheries.pdf](https://reason.org/wp-content/uploads/files/aquaculture_fisheries.pdf).

**Table 1. Required Permits for U.S. Aquaculture**

Agency	Statute/Purpose	Permit
<b>Army Corps of Engineers—Federal</b>	Section 10 of the Rivers and Harbors Act Construction in navigable waters	Section 10 permit
<b>Corps—Federal</b>	CWA §404 Discharge of dredge and fill material into U.S. waters	CWA 404 Permit
<b>Ecology—State</b>	Sections 402/403 of the CWA Discharges of pollutants to the United States	National pollutant discharge elimination system (NPDES) permit
<b>Department of Natural Resources—State</b>	Aquatics Lands Act Revised Code of Washington (RCW) Chapter 79.10	Aquatic land lease
<b>Department of Fish and Wildlife—State</b>	Hydraulic Project Act RCW Chapter 77.55	Hydraulic project approval
<b>County/City—Local</b>	Shoreline Management Act RCW Chapter 90.58	Shoreline master permit
<b>Ecology—State</b>	Shoreline Management Act RCW Chapter 90.58	Shoreline conditional use permit

Source: Adapted from U.S. EPA, *A GUIDE TO THE PERMITTING AND AUTHORIZATION PROCESS FOR AQUACULTURE IN U.S. FEDERAL WATERS OF THE GULF OF MEXICO (2019)*, [https://www.epa.gov/sites/production/files/2020-03/documents/gulf\\_aquaculture\\_guide\\_oct2019.pdf](https://www.epa.gov/sites/production/files/2020-03/documents/gulf_aquaculture_guide_oct2019.pdf).

leasing state-managed aquatic lands and approving habitat alterations. Significantly, the lease grants the aquaculture operator a property interest and generates lease revenues for the state.

Washington State participates in the Coastal Zone Management Act (CZMA).<sup>18</sup> Washington's approved Coastal Management Program relies on a variety of state laws to regulate coastal management, including the Shoreline Management Act (SMA).<sup>19</sup> Under the SMA, the Washington Department of Ecology oversees the enactment of city and county shoreline master programs (SMPs), an early form of marine spatial planning. The SMPs identify areas for preferred uses and conservation conditions for such uses that alter the coastal ecosystem. Permits under the SMA may include shoreline conditional use permits, shoreline substantial development permits, shoreline variance permits, shoreline exemption permits, and/or shoreline revision permits.

The Washington Department of Fish and Wildlife requires hydraulic project approval (HPA) permits when projects “use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state” under

Revised Code of Washington Chapter 77.55. HPA permits are required for virtually all water projects including aquatic plant removal, dredging, and streambank protection.<sup>20</sup>

Federal and state permit decisions trigger several additional consultations and reviews, each with its own substantive criteria, time lines, and appeals procedures. Table 2 identifies these reviews.

As noted above, analysts and industry advocates identify this complexity as a factor slowing aquaculture's growth.

#### A. NWP 48

As Table 1 notes, the Corps issues CWA §404 permits for aquaculture projects because they typically discharge seabed sediments that constitute “fill materials” under the CWA. Under its §404 authority, the Corps has issued several general permits or NWPs for activities that are (1) similar in nature and (2) have minimal adverse impacts on the environment, separately or cumulatively.<sup>21</sup>

NWPs allow certain activities to proceed more quickly and with less site-specific review than an individual permit. According to Corps data, in 2003, general permits aver-

18. 16 U.S.C. §§1451-1466, ELR STAT. CZMA §§302-319.

19. WASH. REV. CODE ch. 90.58 (1971).

20. WASH. REV. CODE ch. 77.55 (2005).

21. 33 C.F.R. pt. 330 (2019).

**Table 2. Federal and State Consultations and Environmental Review**

Consultation	Requirement
<b>Endangered Species Act</b>	Agencies must consult with NOAA and U.S. Fish and Wildlife Service if actions may pose harm to endangered or threatened species or their habitat.
<b>Essential Fish Habitat (EFH)</b>	Under the Magnuson-Stevens Act agencies must consult with NOAA if operations may affect EFH.
<b>Fish and Wildlife Coordination Act</b>	Agencies must consult with NOAA and U.S. Fish and Wildlife Service if actions may harm fish and wildlife resources.
<b>National Environmental Policy Act (NEPA)</b>	Under NEPA agencies must review environmental impacts in either an environmental assessment or environmental impact statement (EIS) for actions with anthropogenic effects on the environment.
<b>§401 Water Quality Certification (CWA)</b>	Under the CWA the state must certify that federal permits comply with state water quality criteria.
<b>Coastal Zone Management Act (CZMA)</b>	Under the CZMA states with a coastal management program may review federal actions to ensure actions are in line with the state's plan.
<b>State Environmental Policy Act (SEPA)</b>	Under SEPA state and local agencies must review a permitting decision's environmental impacts in either an environmental checklist or EIS.

Source: U.S. EPA, *A GUIDE TO THE PERMITTING AND AUTHORIZATION PROCESS FOR AQUACULTURE IN U.S. FEDERAL WATERS OF THE GULF OF MEXICO* (2019), [https://www.epa.gov/sites/production/files/2020-03/documents/gulf\\_aquaculture\\_guide\\_oct2019.pdf](https://www.epa.gov/sites/production/files/2020-03/documents/gulf_aquaculture_guide_oct2019.pdf).

aged 24 days of Corps review compared to an average of 187 days of processing for an individual permit. The Corps used NWP and other general permits to approve approximately 74,000 activities per year (representing 92% of the agency's regulatory work load).<sup>22</sup>

The Corps first issued NWP 48 for commercial shellfish aquaculture in 2007 with reissuance scheduled every five years.<sup>23</sup> Initially, this permit was only available to aquaculture activities existing as of 2007, defined as operations that have "been granted a permit, license, or lease from a state or local agency specifically authorizing commercial aquaculture activities and which has undertaken such activities."<sup>24</sup> The Corps' Seattle District adopted the NWP after an Endangered Species Act (ESA)<sup>25</sup> §7 consultation with the National Marine Fisheries Service (NMFS) regarding pos-

sible impacts to local ESA-listed species. The consultation resulted in supplemental conservation measures.<sup>26</sup>

In 2012, the Corps reissued NWP 48 with provisions that increased its applicability to new shellfish aquaculture activities. The 2012 version also sought to minimize impacts on submerged aquatic vegetation, specifically eelgrass beds. New operations could not directly affect more than a half-acre of designated eelgrass beds, while existing operations were exempt from this restriction.<sup>27</sup> An "existing operation" was redefined as

the area in which the operator is currently authorized to conduct commercial shellfish aquaculture activities, as identified through a lease or permit issued by an appropriate state or local government agency, a treaty, or any other easement, lease, deed, or contract which establishes an enforceable property interest for the operator.<sup>28</sup>

22. CONGRESSIONAL RESEARCH SERVICE, *THE ARMY CORPS OF ENGINEERS' NATIONWIDE PERMITS PROGRAM: ISSUES AND REGULATORY DEVELOPMENTS 2* (2012).

23. AMANDA NICHOLS, *SHELLFISH AQUACULTURE PERMITTING UNDER NATIONWIDE PERMIT 48* (2019).

24. Reissuance of Nationwide Permits, 72 Fed. Reg. 11092, 11145 (Mar. 17, 2007).

25. 16 U.S.C. §§1531-1544, ELR STAT. ESA §§2-18.

26. NMFS, *ESA—SECTION 7 PROGRAMMATIC CONSULTATION BIOLOGICAL AND CONFERENCE OPINION* (2009).

27. Reissuance of Nationwide Permits, 77 Fed. Reg. 10184, 10228-32 (Feb. 21, 2012).

28. U.S. ARMY CORPS OF ENGINEERS, *DECISION DOCUMENT: NATIONWIDE PERMIT 48* (2012).

The Seattle District adopted the 2012 NWP 48 with a regional condition prohibiting the use of hydraulic escalator equipment to commercially harvest clams. The Seattle District added 16 special conditions from a 2009 biological opinion after concluding an additional consultation for the 2012 NWP 48 would be redundant.<sup>29</sup>

NMFS disagreed with the Corps and determined that the 2009 biological opinion did not cover the 2012 NWP's expanded aquaculture activities. The Seattle District opted for programmatic biological evaluations rather than reoccurring consultation for each reissuance of NWP 48. The Seattle District initiated a programmatic ESA §7 consultation in 2014 to address potential shellfish permitting and aquaculture impacts for the next 20 years.<sup>30</sup> The Seattle District and NMFS, respectively, drafted their biological assessment and biological opinion, and sent them to the affected tribes for input before finalizing them in 2015 and 2016, respectively.<sup>31</sup>

NMFS and the Seattle District found likely adverse effects on four ESA-listed species: Puget Sound canary rockfish, summer-run chum salmon, Puget Sound Chinook salmon, and southern DPS green sturgeon.<sup>32</sup> NMFS included an incidental take statement and non-discretionary terms and conditions.<sup>33</sup> The U.S. Fish and Wildlife Service (FWS) also released a biological opinion for Puget Sound bull trout and marbled murrelet, finding adverse impacts but no jeopardy.<sup>34</sup>

The Swinomish and Sauk-Suiattle Indian Tribes provided extensive input during the rulemaking process on measures to minimize or avoid damage to eelgrass beds, which are critical habitat for ESA-listed Puget Sound Chinook salmon. The tribes objected to freeing up existing beds in “fallow” areas, or areas of past shellfish activities previous to the first NWP 48 in 2007. In response, NMFS added Conservation Measure 7 in the biological draft, which added a buffer around existing beds. According to the Swinomish Tribe, the Corps dropped this measure after members of the Washington congressional delegation sent a letter to the Corps.<sup>35</sup>

This change led EPA to voice concern over the condition's removal, stating that without such a measure, the resulting NWP 48 authorized activities would not comply with the CWA. The Seattle District responded by adding a more limited measure that applied only to “new” aquaculture operations. The final programmatic biological opinion

contained no conservation measures to protect eelgrass in fallow areas.<sup>36</sup>

In 2017, the Corps reissued NWP 48 with provisions that again increased areas and activities to which it could apply. The Corps more broadly defined “existing operations” as “an operation in a project area where commercial shellfish aquaculture activities have not been conducted during the last 100 years,” operations active since the 2007 NWP 48, and “continuing fallow” areas.<sup>37</sup> The permit exempted existing operations from prohibited activities affecting areas with more than one-half-acre of eelgrass beds and the requirement for preconstruction notices to be sent to the Corps before altering eelgrass habitats.<sup>38</sup> The Seattle District adopted the permit with a single regional condition prohibiting the use of a hydraulic escalator in the harvest of commercial clams.<sup>39</sup>

Many environmental groups feared that the rapid expansion facilitated by the new version of the permit would lead to the degradation of local ecosystems, and three groups challenged NWP 48 in federal court.

## B. Litigation

In 2017 and 2018, the Center for Food Safety, Swinomish Indian Tribe, and Coalition to Protect Puget Sound filed separate complaints in the U.S. District Court for the Western District of Washington to vacate NWP 48 as it applied in Washington State.<sup>40</sup> Washington-based Taylor Shellfish, the largest producer of aquaculture shellfish in the United States, intervened in the cases to defend the permit along with the Corps.<sup>41</sup> The Swinomish case illustrates the breadth of the plaintiffs' challenges to the Corps and NOAA's application and implementation of NWP 48 in North Puget Sound in areas with eelgrass beds. Specifically, the complaint alleges the agencies violate:

- The CWA's requirement that an NWP have “no more than minimal adverse impacts on aquatic resources and must implement practicable and available alternatives that avoid or minimize harm to such resources.”
- The National Environmental Policy Act (NEPA),<sup>42</sup> because the Corps' environmental assessments did

29. SEATTLE DISTRICT, U.S. ARMY CORPS OF ENGINEERS, SUPPLEMENT TO THE NATIONAL DECISION DOCUMENT FOR 2012 NATIONWIDE PERMIT 48 AND REGIONAL GENERAL CONDITIONS 42-45 (2012).

30. Complaint at 29, Center for Food Safety v. U.S. Army Corps of Eng'rs, No. 17-1209RSL (W.D. Wash. Aug. 10, 2017).

31. Complaint for Declaratory and Vacatur Relief at 13, Swinomish Indian Tribal Cmty. v. U.S. Army Corps of Eng'rs, No. C18-0598RSL (W.D. Wash. Apr. 24, 2018).

32. NMFS, ENDANGERED SPECIES ACT SECTION 7 FORMAL BIOLOGICAL PROGRAMMATIC OPINION AND MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT ESSENTIAL FISH HABITAT CONSULTATION FOR SHELLFISH AQUACULTURE ACTIVITIES IN WASHINGTON STATE 63-93 (2016).

33. NMFS, REVISED ITS AND BIOLOGICAL OPINION ERRATA (2016).

34. FWS, BIOLOGICAL OPINION: PROGRAMMATIC CONSULTATION FOR SHELLFISH ACTIVITIES IN WASHINGTON STATE INLAND MARINE WATERS (2016).

35. *Swinomish*, No. C18-0598RSL, at 13-15.

36. *Id.* at 14-15.

37. Issuance and Reissuance of Nationwide Permits, 82 Fed. Reg. 1860, 1995 (Jan. 1, 2017).

38. *Id.* at 1995-96; *see also* Center for Food Safety v. U.S. Army Corps of Eng'rs, No. 17-1209RSL, at 32-33 (W.D. Wash. Aug. 10, 2017).

39. SEATTLE DISTRICT, U.S. ARMY CORPS OF ENGINEERS, SPECIAL PUBLIC NOTICE: FINAL SEATTLE DISTRICT 2017 NATIONWIDE PERMIT REGIONAL CONDITIONS (2017).

40. Coalition to Protect Puget Sound Habitat v. U.S. Army Corps of Eng'rs, No. C16-0950RSL (W.D. Wash. June 5, 2017); Center for Food Safety v. U.S. Army Corps of Eng'rs, No. 17-1209RSL (W.D. Wash. Aug. 10, 2017); Swinomish Indian Tribal Cmty. v. U.S. Army Corps of Eng'rs, No. C18-0598RSL (W.D. Wash. Apr. 24, 2018).

41. Order to Grant Taylor Shellfish Inc. Motion to Intervene, Swinomish Indian Tribal Cmty. v. U.S. Army Corps of Eng'rs, No. 2:18-CV-598-RSL, 2019 WL 469842 (W.D. Wash. Feb. 6, 2019).

42. 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

not evaluate the adequacy of avoidance and minimization measures to protect eelgrass beds, and found no significant impacts despite the lack of mandatory avoidance and minimization measures.

- The ESA, by finding that the shellfish activities would not jeopardize the survival and recovery of threatened Puget Sound Chinook or destroy Chinook critical habitat, and because the Corps included no conservation measures to minimize the harm to eelgrass and ensure the eelgrass can recover after disturbances.

The tribe also challenged the incidental take limit established by NMFS on the allowable amount of harm to eelgrass because it allowed shellfish activities to occur on all eelgrass beds in North Puget Sound.<sup>43</sup> The tribe asked the court to declare that the Corps acted arbitrarily, capriciously, and contrary to the CWA, NEPA, and the ESA, and asked the court to vacate and set aside NWP 48 as applied to native eelgrass beds in North Puget Sound, along with the associated NEPA assessments and ESA determinations.

The Center similarly challenged the NWP's impact on eelgrass. The Center also identified reductions in shoreline biodiversity, arguing "the intensive culture of introduced species can fundamentally alter native ecosystems by consuming nutrients previously relied on by native species, depositing waste on the seabed, and changing the physical dynamics of an environment."

On October 10, 2019, Judge Robert Lasnik ruled for the plaintiffs, finding that "there is insufficient evidence in the record to support the agency's conclusion that the reissuance of NWP 48 in 2017 would have minimal individual and cumulative adverse impacts on the aquatic environment for purposes of the CWA."<sup>44</sup> The court also found that the Corps' environmental assessment did not satisfy NEPA's requirements. Specifically, the court found:

Although the minimal impacts finding is repeated throughout the Corps' Decision Document . . . it is based on little more than (1) selectively chosen statements from the scientific literature, (2) the imposition of general conditions with which all activities under nationwide permits must comply, and (3) the hope that regional Corps districts will impose additional conditions and/or require applicants to obtain individual permits if necessary to ensure that the adverse impacts will be minimal.<sup>45</sup>

The court's consideration of each point is examined further below.

43. Complaint for Declaratory and Vacatur Relief at 3, *Swinomish*, No. C18-0598RSL.

44. Order Holding NWP 48 Unlawful in the State of Washington and Requesting Additional Briefing at 6, *Coalition to Protect Puget Sound Habitat v. U.S. Army Corps of Eng'rs*, Nos. C16-0950RSL and 17-1209RSL (W.D. Wash. Oct. 10, 2019).

45. *Id.*

## 1. Minimal Impacts Finding

Regarding the NWP's effects, the court rejected the Corps' landscape analysis, ecosystem resilience argument, and comparison of aquaculture's impacts "to the disturbances and degradation caused by coastal development, pollution, and other human activities in coastal areas." On the first point, the court noted that the Corps' regulations required a site-specific as well as cumulative effects (or landscape) analysis. Regarding ecosystem resilience, the court noted that the Corps relied on only one scientific study and that the study could not "justify such a broad, sweeping conclusion regarding the resilience of entire ecosystems in both the intertidal and subtidal zones."<sup>46</sup>

The court was particularly harsh on the Corps' comparison of aquaculture to other impacts. The Court observed, "Noting that a particular environmental resource is degraded is not an excuse or justification for further degradation." Judge Lasnik concluded that "[t]he Corps must analyze the individual and cumulative impacts of the proposed activity against the environmental baseline, not as a percentage of the decades or centuries of degrading activities that came before."

## 2. General Conditions

Regarding the Corps' reliance on the NWP's general conditions<sup>47</sup> as sufficient for NEPA review, the court concluded that while the conditions were relevant and supportive, they were "too general to be the primary 'data'" on which to rely when evaluating permit-authorized impacts. The court explained:

Even if the Court were to assume that the general conditions will be universally heeded, regulatory fiat does not satisfy NEPA's requirement that the [environmental assessment] contain "sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact." 40 C.F.R. §1508.9(a)(1). The general conditions are just that: general. They apply to all NWPs and do not reflect a "hard look" at the environmental sequellae of commercial shellfish aquaculture.<sup>48</sup>

Putting a fine point on this conclusion, Judge Lasnik reviewed general condition 3 and its prohibition against some activities in salmon spawning areas. He concluded

46. *Id.* at 9. Referencing the Corps' summary of the paper, the court noted the authors evaluated only the effects of intertidal oyster aquaculture on the seagrass *Zostera* and did not examine impacts on other types of aquatic vegetation, on the benthic community, on fish, on birds, on water quality/chemistry/structures, or on substrate characteristics. The court also noted the absence of discussion regarding the impacts of plastic use in shellfish aquaculture and only a "passing reference" to a possible side effect of pesticide use.

47. These conditions addressed impacts on the life-cycle movements of indigenous aquatic species, spawning areas, migratory bird breeding areas, concentrated shellfish beds, and endangered or threatened species, and the requirements that permittees use nontoxic materials and confer with other regulatory agencies as needed.

48. *Id.* at 16.

that the condition “leaves unregulated many activities that could significantly impact those areas.” Finally, he noted that the Corps did not “address the cumulative impacts of commercial shellfish aquaculture at all.”<sup>49</sup>

### 3. Regional Conditions

The court was particularly dismissive of the Corps’ reliance on regional conditions that the agency had not yet adopted, noting “there must be a national decision document that actually evaluates the impacts of the proposed activity in light of any regional conditions imposed.”<sup>50</sup> Judge Lasnik further noted that the record did not indicate that the Corps considered (1) regional data, (2) the species in and characteristics of the aquatic environments in which commercial shellfish aquaculture activities occur, and (3) the “myriad techniques, equipment, and materials used in shellfish aquaculture.” He noted a similar absence of evidence that the Corps had tried to quantify the permitted activity’s likely impacts on the identified species and marine characteristics, or evaluate the mitigating effects of “as-yet-unknown regional conditions.”<sup>51</sup>

On June 11, 2020, Judge Lasnik, after reviewing additional briefing on relief, invalidated the permit.<sup>52</sup> The plaintiffs requested that the permit be invalidated only for Washington State, and the court, accordingly, limited its order to Washington. In reaching his decision, the judge noted that, “[a]s of October 10, 2019, the Corps had verified 898 projects in the State of Washington under 2017 NWP 48, encompassing 35,800 acres.”<sup>53</sup> Several parties argued against applying the vacatur retroactively, noting the Corps would be overwhelmed processing applications for individual permits.<sup>54</sup> Considering both the environmental and economic harms that could result from his ruling, Judge Lasnik concluded:

[T]he Court has significant doubts regarding the agency’s ability to reissue a nationwide permit governing commercial shellfish aquaculture in any form, much less in the same form as was found invalid in October. *The Corps implicitly acknowledged throughout its Decision Documents that the incredible diversity in environments and activities covered by [the permit] made it virtually impossible to conduct a nationwide impact analysis.*<sup>55</sup>

The court’s order includes several key exceptions. First, the order allows producers to maintain and harvest shellfish that were planted or seeded before June 11, 2020; producers may also maintain and harvest any shellfish that are planted or seeded by December 11, 2020. Significantly, the court—recognizing Native American stakeholders’ dual

interests in habitat protection and shellfish harvesting—stayed its order for any Native American operations cultivating shellfish pursuant to the terms of an earlier court case, *United States v. Washington*.<sup>56</sup>

The court also stayed its order for 60 days to allow the Corps and/or intervenors to appeal and obtain a stay from the U.S. Court of Appeals for the Ninth Circuit. Taylor Shellfish and Pacific Coast Shellfish Growers Association appealed the court’s order on June 18, 2020. On July 22, 2020, the Ninth Circuit denied the shellfish growers’ motion to stay Judge Lasnik’s order.<sup>57</sup>

As discussed in Part VI, the NWP 48 litigation forecasts arguments that stakeholders will likely make if and when the Corps issues the NWPs that the Executive Order mandates. The emphasized part of the above excerpt from Judge Lasnik’s vacatur order provides a warning as the Corps proceeds to implement the Executive Order’s direction to create new NWPs.

### III. Aquaculture in Federal Waters

In federal waters, the federal permits and consultations identified in Tables 1 and 2 apply; a state aquatic land lease and state and local permits, however, are not required in federal waters. Federal requirements may differ by region. This part looks at the Gulf of Mexico because of the proactive role played by the Gulf of Mexico Fishery Management Council (Council) in planning for and permitting aquaculture in federal waters under its jurisdiction.

As discussed further below, in addition to the previously discussed federal permits, NOAA also has required an aquaculture permit under the Magnuson-Stevens Act (MSA) in the Gulf of Mexico.<sup>58</sup> NMFS has regulatory authority over fisheries in federal waters under the MSA. A 1993 memorandum of opinion from NOAA’s assistant general counsel for fisheries to NOAA’s acting general counsel concluded that aquaculture constitutes “fishing” under the MSA because it involves harvesting fish from the EEZ by U.S. vessels.<sup>59</sup>

The MSA establishes eight regional fisheries management councils. Each council is responsible for preparing FMPs that are “necessary and appropriate for the conservation and management of the fishery, to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery.”<sup>60</sup> FMPs are approved by NMFS and are intended to serve as the basis for conservation and management of wild harvest

49. *Id.* at 17.

50. *Id.* at 18.

51. *Id.*

52. Order Vacating NWP 48 in the State of Washington at 11, Coalition to Protect Puget Sound Habitat v. U.S. Army Corps of Eng’rs, Nos. C16-0950RSL and 17-1209RSL (W.D. Wash. June 11, 2020).

53. *Id.* at 5.

54. *Id.*

55. *Id.* at 10-11 (emphasis added).

56. *Id.*

57. Order on Motion to Stay, Coalition to Protect Puget Sound Habitat v. U.S. Army Corps of Eng’rs, No. 20-35546 (W.D. Wash. July 22, 2020).

58. NOAA has the authority to issue other permits depending on the geographic location of a proposed farm. Further permits may include a scientific research permit and/or incidental take permit under the ESA and a special use permit and/or a sanctuary permit under the National Marine Sanctuaries Act. NOAA, Federal Aquaculture Regulatory Fact Sheet Series (2016), <https://www.ars.usda.gov/SCA/Fact%20Sheets/NOAA%20Federal%20Aquaculture%20Regulatory%20Fact%20Sheet%20Series2016.pdf>.

59. For a discussion of legal analyses coincident with the NOAA opinion, see Alison Rieser & Susan Bunsick, *Offshore Marine Aquaculture in the U.S. Exclusive Economic Zone (EEZ): Legal and Regulatory Concerns*, in TRENDS AND FUTURE CHALLENGES FOR U.S. NATIONAL OCEAN AND COASTAL POLICY 95, 98 n.9 (Biliana Cicin-Sain et al. eds., NOAA 1999).

60. 16 U.S.C. §1853(a)(1)(A).

**Table 3. Other Federal Authorizations for Offshore Aquaculture in Federal Waters Off the Gulf of Mexico**

Agency	Statute/Authority	Purpose	Who Initiates the Action
<b>U.S. Coast Guard</b>	33 U.S.C. §§ 1221 et seq. 33 C.F.R. § 66	Ensure safe navigation	Applicant establishing private aid to navigation
<b>Bureau of Ocean Energy Management</b>	Outer Continental Shelf Lands Act and Energy Policy Act 30 C.F.R. §§ 500-599	Required if operation tethered to existing oil and gas facilities	Operator of Outer Continental Shelf facility submits request for alternative use right-of-use and easement (RUE)
<b>Bureau of Safety and Environmental Enforcement (BSEE)</b>	Outer Continental Shelf Lands Act and Energy Policy Act 30 C.F.R. §§ 500-599	Required if operation tethered to existing oil and gas facilities	Permitting agency requests BSEE consultation

Source: U.S. EPA, A GUIDE TO THE PERMITTING AND AUTHORIZATION PROCESS FOR AQUACULTURE IN U.S. FEDERAL WATERS OF THE GULF OF MEXICO (2019), [https://www.epa.gov/sites/production/files/2020-03/documents/gulf\\_aquaculture\\_guide\\_oct2019.pdf](https://www.epa.gov/sites/production/files/2020-03/documents/gulf_aquaculture_guide_oct2019.pdf).

fisheries within the eight regions.<sup>61</sup> Table 3 depicts further federal authorizations that may be required in the Gulf.

#### A. Gulf Plan

The Council and NMFS began planning for aquaculture in federal waters as early as 2003.<sup>62</sup> In September 2004, NMFS published its notice of intent to evaluate, together with the Council, alternatives for regulating aquaculture activities in the Gulf<sup>63</sup> under the opinion memorandum's conclusion that an offshore aquaculture facility is "fishing" under the MSA subject to NMFS federal fishery management.<sup>64</sup> The Council's efforts culminated in the 2009 Gulf Aquaculture FMP.<sup>65</sup>

The FMP's stated goal was to create a regulatory framework for offshore aquaculture that will "increase the maximum sustainable yield and optimum sustainable yield of federal fisheries in the Gulf of Mexico by supplementing the harvest of wild-caught species with cultured product."<sup>66</sup> The FMP notes that it is responding to the growing demand for protein in the United States and the Council's desire to maximize sustainable seafood production and economic opportunity in federal waters of the Gulf.<sup>67</sup> The FMP further describes itself as a step in streamlining the permitting process to increase aquaculture production.<sup>68</sup>

In developing the FMP, the Council considered 10 management actions and associated alternatives, and prepared a programmatic environmental impact statement (EIS) that reviews the physical and biological effects that offshore aquaculture poses to the marine environment and the associated environmental consequences.<sup>69</sup> The FMP outlines the 10 management alternatives the Council chose: (1) permitting requirements and specifications, (2) application and operational requirements, (3) permit duration, (4) allowable aquaculture species, (5) allowable aquaculture systems, (6) aquaculture siting requirements, (7) restricted access zones for aquaculture facilities, (8) recordkeeping and reporting, (9) biological reference points and status determination, and (10) framework procedures.<sup>70</sup>

The Council completed the regional Gulf Aquaculture FMP in 2009 and submitted it to NMFS for approval and implementation. NMFS published a notice of availability

61. HARVARD LAW SCHOOL ET AL., OFFSHORE AQUACULTURE REGULATION UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (2013).

62. Plaintiffs' Memorandum of Points and Authorities in Support of Plaintiffs' Motion for Summary Judgment at 2, Gulf Fishermens Ass'n v. National Marine Fisheries Serv., No. 2:16-cv-1271-JTM-KWR (E.D. La. Sept. 21, 2017).

63. Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Draft Generic Amendment to Gulf of Mexico Fishery Management Plans for Offshore Aquaculture, 69 Fed. Reg. 53682 (Sept. 2, 2004).

64. *Id.* In April 2010, an explosion occurred on the *Deepwater Horizon* oil rig, releasing millions of barrels of oil into the Gulf. In addition, responders applied a chemical dispersant to break up the spill. In July, after 85 days, responders successfully capped the well. In 2013, NMFS published a notice of intent (78 Fed. Reg. 5403 (Jan. 25, 2013)) to prepare a draft supplement to the Gulf Aquaculture FMP/final programmatic environmental impact statement (DSFPEIS) to consider new circumstances and information arising from the *Deepwater Horizon* blowout. The agency published the DSFPEIS for public comment in February 2014 (79 Fed. Reg. 9199 (Feb. 18, 2014)); NMFS received six comment letters and considered them in preparing the final supplement/final programmatic environmental impact statement. HARVARD LAW SCHOOL ET AL., *supra* note 61.

65. GULF OF MEXICO FISHERY MANAGEMENT COUNCIL, FISHERY MANAGEMENT PLAN FOR REGULATING OFFSHORE MARINE AQUACULTURE IN THE GULF OF MEXICO (2009).

66. *Id.* at xi.

67. *Id.*

68. *Id.*

69. *Id.* at 2-19. The FMP is a programmatic action that requires review under NEPA. Final Guidance on Effective Use of Programmatic NEPA Reviews, 79 Fed. Reg. 76986 (Dec. 23, 2014).

70. GULF OF MEXICO FISHERY MANAGEMENT COUNCIL, *supra* note 65.



for the FMP in the *Federal Register* on June 4, 2009, and requested public comments through August 3, 2009.<sup>71</sup>

The MSA requires the Commerce Secretary to approve, disapprove, or partially approve an FMP within 30 days of the end of the comment period; however, 30 days passed with no action.<sup>72</sup> On September 3, 2009, the Secretary gave written notice to the Council that the statutory period had ended without secretarial action and the FMP would enter into legal effect that day.<sup>73</sup> NOAA announced plans to issue a national aquaculture policy that would complement and provide context for the FMP.<sup>74</sup>

Almost two years later, in June 2011, NOAA released the national aquaculture policy. The policy reaffirms the 1980 National Aquaculture Act's finding, that "it is in the national interest, and is the national policy, to encourage aquaculture in the United States."<sup>75</sup> Additionally, the policy details the social and economic benefits of sustainable aquaculture and the importance of management based on best available science and highlights the need for an efficient and transparent permitting process.<sup>76</sup> After issuing the new policy, NMFS analyzed the FMP and found it to be consistent with the 2011 national aquaculture policy.<sup>77</sup>

## B. NOAA Rulemaking

In August 2014, NMFS published the proposed rule for the Gulf Aquaculture FMP and received more than 1,000 public comments.<sup>78</sup> The final rule entered into effect on February 12, 2016, six years after the Gulf Aquaculture FMP's effective date.<sup>79</sup> The rule requires potential aquaculture operations in Gulf federal waters to apply for a Gulf aquaculture permit (GAP), a 10-year site permit issued by the NOAA Southeast Regional Office.<sup>80</sup> GAPs authorize permittees to harvest broodstock of allowed species within the permitted site and to transport and sell the cultured species.<sup>81</sup> Before applying for a GAP, applicants must obtain a \$10 permit from the Corps and a national pollutant discharge elimination system (NPDES) permit from EPA.<sup>82</sup> The rule authorizes NOAA to grant up to 20 operating permits that could produce a combined annual total of 64 million pounds of cultured species native to the Gulf.<sup>83</sup>

## C. First Permit

Following publication of the NMFS final rule, Kampachi Farms LLC, a Hawaii-based aquaculture company, proposed the first offshore aquaculture project in Gulf federal waters. The proposed pilot-scale project, known as Vellella Epsilon, would take place approximately 45 miles southwest of Sarasota, Florida, and involve a single net pen for rearing up to 20,000 almaco jack.<sup>84</sup> The company successfully engineered smaller net pens for deployment off the Hawaii coast, but Vellella Epsilon would be the first of its kind in U.S. federal waters.<sup>85</sup>

The company received a grant from Florida Sea Grant for the Gulf project in accordance with the national initiative to increase U.S. aquaculture production.<sup>86</sup> The chief executive officer (CEO) of Kampachi Farms stated that one of the project's primary goals is to "help the local communities in the Gulf of Mexico to understand the ancillary benefits that offshore aquaculture can bring to fisheries and to recreational tourism."<sup>87</sup> Despite Sea Grant's support, the company's stated intent, and previous success in Hawaii, many stakeholders oppose the project.

In June 2018, Kampachi applied for an NPDES permit from EPA for the farm's discharges of fish waste into federal waters.<sup>88</sup> In August 2019, EPA published a public notice of its intent to issue the NPDES permit, along with the draft permit finding of no significant impact under NEPA that issuing the permit "will not cause a significant environmental impact to water quality or result in any other significant impacts to human health and the national environment."<sup>89</sup>

EPA received more than 9,000 comments.<sup>90</sup> At a January 2020 public hearing, community members and stakeholder groups voiced both apprehension and support of the pilot project.<sup>91</sup> While some supported EPA's draft environmental assessment and permit and found the federal reviews thorough, others argued that aquaculture was a risk not worth taking in the Gulf.<sup>92</sup> Concern was raised over the period of time between the 2014 *Deepwater Horizon* oil spill and the draft permit, arguing Gulf ecosystems had not fully recovered.<sup>93</sup> Many voiced outright opposition to aquaculture in the Gulf, while others saw merit in offshore aquaculture but urged for additional environmental

71. Fisheries of the Caribbean, Gulf, and South Atlantic; Aquaculture: Final Rule, 81 Fed. Reg. 1762 (Jan. 13, 2016) [hereinafter 2016 Final Rule].

72. Plaintiffs' Memorandum of Points and Authorities in Support of Plaintiffs' Motion for Summary Judgment, *supra* note 62, at 3.

73. *Id.*

74. 2016 Final Rule, *supra* note 71.

75. NOAA, MARINE AQUACULTURE POLICY (2011).

76. *Id.*

77. 2016 Final Rule, *supra* note 71.

78. *Id.*

79. *Id.*

80. NOAA, NOAA FISHERIES' FINAL RULE TO IMPLEMENT THE FISHERY MANAGEMENT PLAN FOR AQUACULTURE IN FEDERAL WATERS OF THE GULF OF MEXICO: FREQUENTLY ASKED QUESTIONS (2016), [https://www.noaa.gov/sites/default/files/atoms/files/aquaculture\\_gulf\\_fmp\\_faqs\\_jan2016.pdf](https://www.noaa.gov/sites/default/files/atoms/files/aquaculture_gulf_fmp_faqs_jan2016.pdf).

81. *Id.*; Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Aquaculture, 74 Fed. Reg. 26892 (June 4, 2009).

82. 2016 Final Rule, *supra* note 71.

83. CONGRESSIONAL RESEARCH SERVICE, R45952, U.S. OFFSHORE AQUACULTURE REGULATIONS AND DEVELOPMENT 15 (2019).

84. Kirk Moore, *First Offshore Aquaculture Farm Proposed for Gulf of Mexico*, NAT'L FISHERMAN, Nov. 5, 2019, <https://www.nationalfisherman.com/gulf-south-atlantic/first-offshore-aquaculture-farm-proposed-for-gulf-of-mexico>.

85. *Id.*

86. Neil Sims, *Vellella Epsilon: Pioneering Offshore Aquaculture in the Gulf of Mexico*, OCEAN ERA, Nov. 2, 2017, <http://ocean-era.com/blog/2017/11/2/vellella-epsilon-pioneering-offshore-aquaculture-in-the-gulf-of-mexico>.

87. *Id.*

88. Moore, *supra* note 84.

89. U.S. EPA, Public Notice No. 19FL00001, Notice of Proposed Issuance of National Pollutant Discharge Elimination System Permit (Aug. 30, 2019).

90. Rachel Brown Hackney, *EPA Received More Than 9,000 Comments on Proposed "Fish Farm,"* SIESTA SAND, Mar. 30, 2020, <http://siestasand.net/epa-received-more-than-9000-comments-on-proposed-fish-farm>.

91. *Public Hearing on EPA's Draft National Pollutant Discharge Elimination System (NPDES) Permit for Kampachi Farms, LLC—Permit No. FLOA00001* (2020).

92. *Id.*

93. *Id.*

review and suggested alternatives to the proposed monoculture net pens.<sup>94</sup>

Should EPA proceed with issuing the NPDES permit, Kampachi Farms would need to secure a Corps §10 permit before applying for a GAP. As of February 2020, EPA had not reached a decision on whether to issue the permit.<sup>95</sup> The issue is further complicated by the ongoing litigation discussed below, regarding NMFS' authority to issue a federal aquaculture permit.<sup>96</sup>

#### D. *Litigation: "Congress Does Not 'Hide Elephants in Mouseholes'"*

In 2018, a coalition of 11 sport and commercial fishing organizations together with conservation and food safety groups<sup>97</sup> sued NOAA in the U.S. District Court for the Eastern District of Louisiana. The Center for Food Safety, a lead plaintiff in the litigation to invalidate NWP 48 in Washington State waters, again played a central role in challenging the plan. The coalition argued that the MSA did not authorize NOAA to plan for aquaculture in federal waters.

On September 24, 2018, Judge Jane Triche Milazzo agreed with the plaintiffs, concluding "[t]here is nothing in the MSA or its legislative history to suggest Congress might have intended the term [harvesting] to include the farming of fish."<sup>98</sup> Quoting the U.S. Court of Appeals for the Fifth Circuit, Judge Milazzo opined with pith, "Congress does not 'hide elephants in mouseholes.'"<sup>99</sup> Emphasizing the point, she concluded, "[h]ad Congress intended to give the NMFS the authority to create an entirely new regulatory permitting scheme for aquaculture operations, it would have said more than 'harvesting.'"<sup>100</sup>

NMFS appealed the judge's ruling to the Fifth Circuit. The court heard oral arguments in January 2020 and issued its decision on August 3.<sup>101</sup> Noting that the FMP and implementing regulations are the first attempt by NMFS or any council to regulate aquaculture under the MSA, the court characterized the effort as "no small attempt," because the FMP's "maximum annual production of 64 million pounds of seafood in the Gulf . . . would equal the

previous average annual yield 'of all marine species in the Gulf[ ] except menhaden and shrimp.'"<sup>102</sup>

Picking up on Judge Milazzo's pithy "animal metaphor," the appeals court concluded that NOAA's argument that the MSA allowed the agency to regulate aquaculture because the Act was entirely silent on the matter is, "all elephant and no mousehole. [NOAA] asks us to believe Congress authorized it to create and regulate an elaborate industry the statute does not even mention. Because we cannot suspend our disbelief that high, we reject the agency's position."<sup>103</sup> This ruling removes the NOAA fishing permit from the approval process and invalidates the Gulf Aquaculture FMP, but does not take away NOAA's involvement in the permitting process. The agency will still participate through consultations and guidance with the Corps and EPA in their permitting process. Importantly, the court ruling does not change other permitting requirements, such as the CWA NPDES permit, outlined above.

## IV. Congressional (In)action

In October 2019, one year after the district court ruling, the Congressional Research Service issued a detailed report on offshore aquaculture.<sup>104</sup> The report reviewed anew aquacultures' opportunities and challenges, congressional consideration of aquaculture legislation issues beginning with the 2005 bipartisan effort by Senators Stevens and Inouye, and the complex permitting process.

The report reviewed offshore aquaculture bills introduced in the 109th, 110th, 111th, 112th, 113th, 114th, and 115th Congresses. The report notes that "generally, these bills focused on establishing a regulatory framework to develop offshore aquaculture in federal waters of the EEZ," but "varied to some degree on the balance between the potential rights and responsibilities of aquaculturalists" and between aquaculture development and environmental protection. Bills in the latter category "stressed elements such as determining appropriate locations, issuing regulations to prevent impacts on marine ecosystems and fisheries, and supporting research to guide precautionary development of offshore aquaculture."<sup>105</sup> More restrictive bills would prohibit agencies from issuing permits for marine aquaculture facilities in the EEZ until requirements for issuing aquaculture permits are enacted into law. The range of approaches suggests an absence of consensus needed to legislate.

## V. Executive Order

On May 7, 2020, the Donald Trump Administration issued its fishing industry Executive Order. Much of this Order focuses on U.S. aquaculture and expansion of the industry for "a more efficient and transparent permitting process."<sup>106</sup> The Order states as its purpose strengthen-

94. *Id.*

95. Hackney, *supra* note 90.

96. Laura Reiley, *An Experimental Fish Farm in Florida May Pave Way to Privatizing Federal Waters*, WASH. POST, Jan. 28, 2020, <https://www.washingtonpost.com/business/2020/01/28/an-experimental-fish-farm-florida-may-pave-way-privatizing-federal-waters>.

97. The plaintiffs are the Gulf Restoration Network, Florida Wildlife Federation, Food & Water Watch, Inc., Gulf Fishermens Association, Destin Charter Boat Association, Alabama Charter Fishing Association, Fish for America USA, Inc., Recirculating Farms Coalition, and Center for Food Safety.

98. *Gulf Fishermens Ass'n v. National Marine Fisheries Serv.*, No. 16-1271, at 14, 48 ELR 20175 (E.D. La. Sept. 25, 2018) (Milazzo, J.).

99. *Id.*

100. *Id.*

101. *Gulf Fishermens Ass'n v. National Marine Fisheries Serv.*, No. 19-30006, 50 ELR 20182 (5th Cir. Aug. 3, 2020). The court split 2-1. President Donald Trump appointee Judge Stuart Kyle Duncan authored the majority opinion in which Judge Patrick Higginbotham (a President Ronald Reagan appointee) joined. Judge Stephen Higginson, a President Barack Obama appointee, dissented.

102. *Id.* at 8 (internal citations omitted).

103. *Id.* at 13.

104. CONGRESSIONAL RESEARCH SERVICE, *supra* note 83.

105. *Id.* at 45.

106. Chris Oliver, *President Signs New Executive Order Promoting American Seafood Competitiveness and Economic Growth*, NOAA, May 7, 2020.

ing the economy, ensuring food security, providing safe and sustainable seafood, supporting workers, promoting predictable federal actions, and removing regulatory burdens to fish farming.<sup>107</sup> The Order emphasizes U.S. reliance on other nations by importing more than 85% of seafood products.

Section 6, “Removing Barriers to Aquaculture Permitting,” designates NOAA as the lead agency for all other agencies to follow.<sup>108</sup> Consistent with the Gulf Fishermens court’s ruling, the Order does not give NOAA permitting authority; rather, it directs other federal agencies to coordinate their activities under NOAA’s leadership.<sup>109</sup> For example, §6 directs the Corps to develop NWP’s for finfish, seaweed, and multispecies aquaculture “in marine and coastal waters out to the limit of the territorial sea and in ocean waters beyond the territorial sea within the exclusive economic zone of the United States.”<sup>110</sup> The Order sets a deadline of 90 days from May 7 for the Corps to issue a draft of such permits.

Section 7, “Aquaculture Opportunity Areas,” requires the Secretary of the Army to consult with the Secretary of Interior, Secretary of Agriculture, Secretary of Commerce, Secretary of Homeland Security, EPA, and tribes to identify two areas suitable for aquaculture within one year of the Order and complete an EIS on this action within two years.<sup>111</sup> The Order directs the Secretary of Commerce to incorporate public comment and minimize resource conflicts in these identified areas.<sup>112</sup>

Section 8, “Improving Regulatory Transparency,” directs NOAA to display relevant federal requirements and grant opportunities on their website for transparency and understanding of permitting.<sup>113</sup>

Section 9, “Updating National Aquaculture Development Plan,” orders the Interior, Agriculture, and Commerce Departments to consult with the Joint Subcommittee on Aquaculture and assess if the National Aquaculture Development Plan needs revision. The Order identifies easing regulatory constraints, establishing facility and project tenure, and permitting frameworks as possible areas of focus.<sup>114</sup>

Additionally, Section 10, “Promoting Aquatic Animal Health,” mentions that aquaculture projects occurring in federal waters should incorporate risk-based management.<sup>115</sup>

Touting the Order’s potential benefits, Chris Oliver, NOAA’s fisheries administrator, claims the Order presents new and exciting opportunities to address long-term challenges the domestic seafood industry has faced.<sup>116</sup> NOAA Administrator Kathryn Sullivan explained how aquaculture actually complements the wild fishing industry by maintaining fisheries that are resilient and protecting wild stocks from overfishing.<sup>117</sup>

### A. Stakeholder Approval

Proponents of the Order praise its policy direction using themes from the decades-long vision for expanding U.S. aquaculture. For example, the Stronger America Through Seafood coalition characterizes it as “an innovative, thoughtful program to meet that need using American workers, American technology and American resources.”<sup>118</sup> Sean O’Scannlain, President and CEO of Fortune & Fish Gourmet, explains that the rising demand in seafood cannot be met solely from wild-capture fisheries and farming the oceans is necessary.<sup>119</sup>

Other industry officials such as the CEO of Cooke Aquaculture praise the Order for realizing the importance of domestic seafood and its ability to strengthen local economies and food security.<sup>120</sup> Jim Gossen, President of the Gulf Seafood Foundation, touts the economic benefits. To reduce the amount of seafood we import and to remain in business, Gossen believes offshore farms are a must, and would even supply a high-quality product to many respected restaurants and would not have a negative impact on the wild fishing industry.<sup>121</sup> He explains:

If we are going to make this work for everyone, then we all need to be on the same page. The Gulf Seafood Foundation stands ready to help everyone benefit. High quality farm raised fish, as well as a strong wild caught fishing industry, is the only way we will fight the stranglehold imports have on us.<sup>122</sup>

Neil Sims, founder of Ocean Era, a research and development company aiming to begin offshore farming in the Gulf, says the two-year time limit of the streamlined process is necessary when examining the proposed offshore project (Rose Canyon) in San Diego. This project approval has been in the works for 12 years with no end

107. Promoting American Seafood Competitiveness and Economic Growth, Exec. Order No. 13921, 85 Fed. Reg. 28471 (May 12, 2020).

108. *Id.*

109. *Id.*

110. *Id.* In late August, the Corps issued a prepublication notice: Proposal to Reissue and Modify Nationwide Permits, Docket No. COE-2020-0002, RIN 0710-AA84, <https://usace.contentdm.oclc.org/utills/getfile/collection/p16021coll7/id/15009>. It has not yet appeared in the *Federal Register*. The proposal includes NWP’s that authorize seaweed mariculture activities and finfish mariculture activities in marine and coastal waters, including federal waters on the outer continental shelf.

111. *Id.*

112. *Id.* In late August, NOAA identified the first two regions for Aquaculture Opportunity Areas in the Gulf of Mexico and Southern California. NOAA will establish the size and location for these areas based on public input as part of the Order’s identification process. Press Release, NOAA, NOAA Announces Regions for First Two Aquaculture Opportunity Areas Under Executive Order on Seafood (Aug. 20, 2020), <https://www.fisheries.noaa.gov/feature-story/noaa-announces-regions-first-two-aquaculture-opportunity-areas-under-executive-order>.

113. *Id.*

114. *Id.*

115. *Id.*

116. *Id.*

117. Ed Lallo, *Executive Order on Promoting American Seafood Competitiveness and Economic Growth Stirs Controversy Within Gulf Seafood Industry*, GULF SEAFOOD NEWS, May, 15, 2020.

118. Leah Douglas, *Trump’s Executive Order Seeks Controversial Overhaul of Seafood Industry*, FERN, May 8, 2020.

119. *Id.*

120. Rob Fletcher, *Hopes Raised by Trump’s Aquaculture Order*, FISH SITE, May 11, 2020.

121. Lallo, *supra* note 117.

122. *Id.*

date in the foreseeable future.<sup>123</sup> Responding to environmentalist views, Sims says projects will still need an EIS and will need to comply with recommendations by NOAA through other federal agencies. Designation of NOAA as the lead agency also has industry stakeholders' support. Many believe NOAA's involvement is necessary given their responsibility for ocean management.<sup>124</sup> Sims explains "[NOAA as the lead agency will help] avoid protracted fiascos like Rose Canyon, where no agency took the lead role for years."<sup>125</sup>

Louisiana Lt. Gov. Billy Nungesser added, "If we can get the aquaculture industry kicked off I have no doubt that the state can be a leader in many types of finfish, shellfish and other products. We could become a force to be reckoned with in exporting seafood around the world"; he believes aquaculture in the Gulf would be a great opportunity.<sup>126</sup> Ed Chiles, a restaurant owner in the Gulf, greets the Order with open arms as well, explaining that it will give greater control over the quality of seafood Americans consume.<sup>127</sup>

## B. Stakeholder Disapproval

Given the litigation history, it is not surprising that several stakeholders oppose the Order's aquaculture strategy. Much of the backlash comes from environmental groups asserting, as did plaintiffs in the above litigation, that the Order will have detrimental impacts on the oceans and the wild fishing industry.<sup>128</sup> Many of these groups share common concerns that this streamlined process and two-year maximum time limit is a "dangerous short-cut" to necessary environmental review.

The Don't Cage Our Oceans Coalition calls the Order a "corporate aquaculture agenda," arguing only large corporations will benefit, and the rest of the industry, fishermen, and the ocean will reap the consequences.<sup>129</sup> Hallie Templeton, senior oceans campaigner for the environmental group Friends of the Earth, states:

It's not clear at this point which regulations they will roll back, but our sense is everything is on the table . . . conservation measures might be completely erased and it's extremely concerning they are deregulating the fishing industry. It means there will be less protection in place for marine ecosystems.<sup>130</sup>

Templeton worries removing the barriers will be detrimental not only to the health of the environment, but public health and safety as well. She raises concerns that the

Corps drafting NWP's in only 90 days will allow "issues to fly under the radar" with little to no public engagement.<sup>131</sup>

Rosanna Marie Neil from the Northwest Atlantic Marine Alliance describes offshore fish farms as "floating industrial farms" that will bring more pollution to the ocean while harming wild fish stocks.<sup>132</sup> Dr. Miriam Goldstein at the Center for American Progress echoes Templeton and Neil, arguing that the United States needs to "keep safeguards" to protect the wild fish population with the already negative impacts seen from climate change, and that this Order threatens those very safeguards.<sup>133</sup> Marianne Cufone, Recirculating Farms Coalition's executive director, voices similar fears.<sup>134</sup>

In contrast to industry stakeholders, environmental groups take issue with NOAA as the lead agency. Templeton explains the contradiction the Executive Order seems to pose after it was ruled NOAA does not have the authority to authorize permits for offshore aquaculture.<sup>135</sup> Groups believe NOAA as the lead agency is inconsistent with their mission of ocean conservation and sustainable commercial fisheries management, and might cause intra-agency conflicts since NOAA resides in the U.S. Department of Commerce.<sup>136</sup>

Longtime Gulf fisherman Lance Nacio is hesitant about the Order and the effects it might have on the wild fish population.<sup>137</sup> He believes fishermen need to be part of the decision before any permitting plans are made, and the Gulf should be tapping into species already existing in the wild, such as redfish.<sup>138</sup>

## VI. Analysis

Several observations emerge from this exploration of aquaculture policymaking and implementation over the past 20 years, and the more recent litigation.

First, the Executive Order's designation of NOAA as lead agency for aquaculture is an idea that is several decades old, dating back to the reports discussed in Part I. The 2005 report, for example, considered several options for the lead agency, ranging from existing agencies including EPA (as recommended in the Pew report) to a new cabinet-level Department of the Oceans (as recommended by the Ocean Commission). The Council's planning occurred over several administrations of both parties, and the idea of NOAA as lead has had bipartisan congressional support dating back at least as far as the Stevens-Inouye 2005 legislation.

Objections that NOAA has a conflict of interest with its other programs, as some stakeholders have argued, apply equally or even more so to other agencies that could lead

123. Karl Schneider, *President Trump's Order on Aquaculture Draws Environmental Concerns for Gulf Fisheries*, FORT MYERS NEWS-PRESS, May 23, 2020.

124. Jason Huffman, *U.S. Aquaculture Advocates: Judge's Ruling on Gulf of Mexico Proves Need for Law*, UNDERCURRENT NEWS, Sept. 27, 2018.

125. Schneider, *supra* note 123.

126. Lallo, *supra* note 117.

127. *Id.*

128. Douglas, *supra* note 118.

129. Jason Smith, *U.S. Industry, Offshore Farmers Believe Trump's Order Will Have "Huge" Impact*, UNDERCURRENT NEWS, May 8, 2020.

130. Schneider, *supra* note 123.

131. Douglas, *supra* note 118.

132. *Id.*

133. *Id.*

134. Lallo, *supra* note 117.

135. Schneider, *supra* note 123.

136. *Id.*

137. Lallo, *supra* note 117.

138. *Id.*

the effort. The U.S. Department of the Interior,<sup>139</sup> for example, manages offshore energy programs. Conflicts between aquaculture and energy are at least as problematic as conflicts between NOAA's roles in managing aquaculture on the one hand, and on the other managing wild stock fisheries and administering programs to protect marine mammals and threatened and endangered species under the Marine Mammal Protection Act and the ESA. Either the Corps or EPA, if chosen as aquaculture lead, would have internal conflicts as defined by opponents to NOAA's lead role; neither has the ocean expertise that the Department of Commerce has.

Second, opponents of offshore aquaculture have already questioned NOAA's authority to act pursuant to the Order.<sup>140</sup> The agency will need to thoroughly document the statutory basis for each of its Order-driven actions to avoid further "animal metaphors" about elephants and mouseholes.

Third—and related to the above point—the litigation thus far provides a clear road map for lawsuits almost certainly to come against the Executive Order's key strategies, including NWP's and site designations. Expect a multi-pronged attack alleging violations of NEPA, the ESA, and other environmental statutes. In addition to the types of arguments seen thus far, plaintiffs will likely argue that an NWP is particularly inappropriate for an entirely new venture for which there is no track record of impacts. Noting the challenges the Corps faces in this task, NOAA's own Sea Grant Law Center has counseled that the NWP effort "requires the Corps to identify and quantify . . . for the environmental externalities of these respective activities across 3.4 million square miles of ocean—no small feat."<sup>141</sup> Noting the diverse range of species under consideration for offshore cultivation, the Center concluded that "there may be legitimate reasons why the effects of these types of aquaculture on the many ecosystems in the EEZ will be more than minimally adverse."<sup>142</sup>

Fourth, the above analysis demonstrates that detailed environmental review is fundamentally important. Policy studies and reviews from the 1990s through the 2019 Congressional Research Service report emphasize this point.<sup>143</sup> The NWP litigation illuminates the scrutiny the courts will apply to hold agencies to NEPA's "hard look" requirement. The courts, including the U.S. Supreme Court, have routinely undone this Administration's regulatory efforts for failing to follow procedural requirements and analysis.<sup>144</sup> The only chance a new NWP has of surviving legal review

is to take the time to fully address challenging issues. This same caution applies to the EIS that NOAA will prepare to identify aquaculture sites. This heightened need for a credible if not painstakingly thorough review occurs at the same time the Trump Administration has diminished its credibility by adopting a rule<sup>145</sup> broadly perceived as weakening NEPA.<sup>146</sup>

Fifth, unless aquaculture is prohibited in federal waters, site planning could have environmental as well as economic development benefits. Specifically, planning is a standard tool for identifying and avoiding sensitive habitat and conflicting uses. Such spatial planning is the premise behind the past 50 years of CZMA planning in state waters.<sup>147</sup> Such planning has been used effectively in siting offshore wind energy. The Gulf Fishermens case does not end aquaculture permitting in federal waters. It does remove one approach to planning. The Order would begin to restore this function.

Sixth, the extent of conflict over the Order's basic tenets, such as NOAA's lead role and the use of site planning and NWP's, suggests fundamental disagreements among key stakeholders over expanding aquaculture in state and federal waters. Such division further suggests that U.S. policy will remain stalled without some work to bring opposing stakeholder groups together to work out philosophical differences and trust issues outside of the legislative, rulemaking, or court settings. In the face of this polarization, the Order is remarkably silent regarding public participation steps the agencies should take to address concerns and build broader support. Such work could also change the media narrative that tends to highlight disagreements.

In this regard, tools developed in terrestrial natural resource conflicts might be useful. This work recognizes that conservation disputes exist, and must be addressed, at three different levels: disputes, underlying conflicts, and deeper social identity.<sup>148</sup> It focuses on building relationships between stakeholders to address deep-seated social identity differences before attempting to resolve conflicts over specific issues. This conflict transformation has brought together diverse stakeholders in cases as geographically distant as mountain lion conservation in the U.S. West and African elephant poaching.<sup>149</sup>

Seventh, and related to the need for consensus-building, stakeholders that hold the middle ground could become important players. For example, and as noted in Part II, the Swinomish Tribes are both participants in Washington's

139. Interior also illustrates how programs with quite different objectives and balances between resource use and conservation can coexist within the same agency.

140. *Id.*

141. SEA GRANT LAW CENTER, VACATUR OF NWP 48 IN WASHINGTON: INSIGHT AND IMPLICATIONS 6 (2020).

142. *Id.*

143. CIGIN-SAIN ET AL., *supra* note 10; CONGRESSIONAL RESEARCH SERVICE, *supra* note 83.

144. Department of Commerce v. New York, 588 U.S. \_\_\_\_ (2019) (holding Department of Commerce citizenship question on census was not supported by the record); Department of Homeland Sec. v. Regents of the Univ. of Cal., 591 U.S. \_\_\_\_ (2020) (finding the Administration's rulemaking on Deferred Action for Childhood Arrivals to be arbitrary and capricious).

145. Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43304 (July 16, 2020).

146. Lisa Friedman, *Trump Weakens Major Conservation Law to Speed Construction Permits*, N.Y. TIMES, July 15, 2020, <https://www.nytimes.com/2020/07/15/climate/trump-environment-nepa.html>; Rachel Ramirez, *Trump Trashes 50-Year-Old Environmental Law, Blames Coronavirus*, GRIST, June 10, 2020.

147. For an insightful review of the CZMA and its past and future role in addressing coastal issues, see Thomas Kitsos et al., *CZARA of 1990: A Critical Time for Coastal Management*, 41 COASTAL MGMT. 198-218 (2013), available at <http://dx.doi.org/10.1080/08920753.2013.784890>.

148. Francine Madden & Brian McQuinn, *Conservation's Blind Spot: The Case for Conflict Transformation in Wildlife Conservation*, 178 BIOLOGICAL CONSERVATION 97, 100-03 (2014).

149. *Id.* at 103-04.

shellfish fisheries and strong proponents of eelgrass protection and salmon recovery. The tribe's argument for more nuanced relief in the NWP litigation reflects this perspective. Nationally, The Nature Conservancy has taken a position that focuses on sustainable aquaculture.<sup>150</sup>

Finally, the above points—taken together—counsel a slower and more collaborative approach than the Order dictates. This prescription applies regardless of the November election's outcome. If Vice President Biden wins, we can expect generally that his administration will examine and at a minimum modify many current Executive Orders.

A slower process is almost certain as the new administration ramps up. If the Trump Administration is given four more years, any election-year motivation for the Order recedes, allowing time to proceed with more attention to underlying issues and public buy-in.

While it is unclear whether it is possible to build a functional relationship with those on different sides of U.S. aquaculture policy, the current path clearly leads to protracted litigation, with its costs and uncertainty for all the parties.

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150. See, e.g., Robert Jones, *Catalyzing the Blue Revolution: How Investors Can Turn the Tide on Aquaculture*, THE NATURE CONSERVANCY, May 8, 2019, <https://www.nature.org/en-us/what-we-do/our-insights/perspectives/how-investors-can-turn-the-tide-on-aquaculture/>.