
Shellfish Aquaculture Permitting Under Nationwide Permit 48

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Shellfish aquaculture is a rapidly growing industry with diverse practices that vary with species and location. Shellfish can be grown on the bottom or in the water column using containment systems such as racks, cages, and floating bags. Shellfish farms, when properly designed, sited, and managed, have minimal impacts on the environment and provide significant ecosystem services. However, shellfish wastes can potentially impair water quality under certain growing conditions. Shellfish produce wastes by excreting both feces (“pseudofeces”) and ammonia into the water as a result of their particulate filtering abilities. Additionally, if an operation is improperly sited or scaled for a particular location, the impact of the structures in the water column can have adverse social or environmental impacts. Absent any siting or scaling issues, large commercial operations may still adversely affect navigation through the installation of buoys, floats, lines, containers, or other structures in the water.

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As a result of these risks of impairment to water quality and navigation, shellfish aquaculture operations are subject to federal regulations—namely, the Clean Water Act (CWA) and the Rivers and Harbors Act (RHA). To fulfill the purpose of these acts, the U.S. Army Corps of Engineers (Corps) administers permits for commercial shellfish aquaculture activities in state waters. Shellfish farmers are required to secure permits from the Corps in addition to permits or leases issued by an appropriate state or local government agency. In most cases, state permitting or leasing authorities will coordinate permitting activities with the Corps. If an aquaculturist does not first obtain the necessary permissions, they cannot commence operation of their site.

Permitting in General

Under the CWA, the Corps has regulatory authority over activities involving the discharge of dredge and fill materials into navigable waters. Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States (including wetlands) without a permit from the Corps.¹ Thus, those activities that are affiliated with shellfish aquaculture and would result in a discharge of dredged or fill material into waters of the United States (including wetlands) must receive a Section 404 permit from the Corps. Additionally, Section 10 of the RHA prohibits the obstruction or alteration of navigable waters of the United States without a Corps permit. The Corps has combined the permitting process for these two programs.

It is important to note the geographical limits of the Corps' jurisdiction under the CWA and RHA. The Corps requires a permit under Section 10 of the RHA for all structures and work within the territorial seas—those ocean waters within a zone of three nautical miles from shore. Aquaculture operations sited further than three nautical miles from shore are also subject to Corps permitting requirements under other federal authorities if they will include the installation of structures affixed to the ocean bottom and/or artificial islands.² The permitting of these offshore operations is outside the scope of this case study. The geographic jurisdiction for the discharge of dredged or fill material extends from three nautical miles landward to the boundary of any wetlands beyond the highest annual tide.

1. 33 U.S.C. § 1344.

2. See 43 U.S.C.A. § 1333(a)(2)(A).

The Corps authorizes projects under Section 404 and Section 10 through individual and general permits. However, it is important for aquaculture stakeholders to recognize that regardless of the type of permit, the Corps must also comply with the applicable permitting requirements of other environmental statutes, such as the Endangered Species Act (ESA)³ and the National Historic Preservation Act. The Corps may require additional information from developers to ensure compliance with these laws, but such processes are not discussed in detail in this case study since they are applicable to any federal action associated with a proposed activity.

Individual, or standard, permits are issued for projects that do not meet the agency requirements for an expedited, general permit as discussed below. The use of individual permits for the authorization of aquaculture activities is regionally specific, and their use is often reserved for aquaculture operations that may have a discernable conflict with existing public water uses including navigation, commercial fishing, or recreation. They may also be utilized if a proposed activity will result in significant impacts to wetlands, streams, and other aquatic resources. Individual permits are more expensive and time consuming to obtain than general permits as the Corps' review of individual permit applications involves a more thorough analysis of the socioeconomic and environmental impacts of the project. This case-by-case evaluation will often require applicants to submit detailed documentation regarding the project's scope, design, construction, and operation.

In addition to the normal application review process, the Corps has developed several types of general permits that authorize common activities that cause only minimal individual and cumulative environmental impacts. General permits expedite the authorization process for projects that have been designed to meet the terms and conditions of the general permit. The Corps uses three types of general permits:

1. Nationwide Permits;
2. Regional General Permits; and
3. Programmatic General Permits.

3. See generally, Catherine Janasie, *The Effects of the Endangered Species Act on Shellfish Aquaculture in New Jersey*, NATIONAL SEA GRANT LAW CENTER (2019).

The Corps' regulatory program is implemented by 38 district offices. Use of general permits is not uniform throughout the districts. Districts may not use all types of general permits. In addition, some districts have implemented regional restrictions or conditions on using Nationwide Permits. Therefore, when determining if a project meets the terms and conditions of a Nationwide Permit, one must first identify the district in which the project is located and then contact the district or visit the district website to view the regional conditions. District offices can also answer questions regarding the terms and conditions as well as applicability of a certain general permit to a proposed activity. While some general permits do not require any notification to the Corps before use, others may require prior notice to and verification from the Corps.

Nationwide permits (NWPs) authorize activities across the country. There are currently 54 Nationwide Permits authorizing a wide variety of activities including mooring buoys, residential developments, utility lines, road crossings, mining activities, wetland and stream restoration activities, and commercial shellfish aquaculture activities.⁴ The Corps renews and re-issues the nationwide general permits every five years, "...to update them, and provide clarity and certainty for the regulated public while protecting the aquatic environment."⁵ The most recent renewal was finalized in March 2017. Although NWPs authorize activities on a national level, Corps district commanders may revoke a nationwide permit in a state or other geographic area for various reasons, including specific concerns regarding adverse environmental impacts the implementation of a NWP may impose on an area. States also have some authority to prohibit the application of NWPs, as discussed below. The exercise of this authority can result in a patchwork of NWP coverage across the districts and states of the country.

Regional General Permits (RGPs) are similar in nature, in that they authorize activities causing only minimal individual and cumulative environmental impacts. However, RGPs do so *only* within a specific geographic area. RGPs are proposed by districts, but application procedures can vary from one district to the next. For example, the Baltimore District of the Corps, which includes Maryland and central Pennsylvania within its regulatory boundary, implemented a RGP in 2011 (RGP-1) regulating new commercial, research, and educational bivalve shellfish aquaculture activities in Maryland tidal waters.⁶ RGP-1 provided for a more streamlined

4. 33 U.S.C. § 1251.

5. *Army Corps of Engineers Revises and Renews Nationwide Permits*, U.S. ARMY CORPS OF ENGINEERS (Jan. 6, 2017).

6. *Special Public Notice # 11-66*, U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT (Aug. 15, 2011).

authorization process for new native oyster aquaculture activities that were being proposed as a result of changes in state aquaculture leasing laws. To qualify for a RGP-1 permit, projects were limited to fifty acres for shell-on-bottom aquaculture sites, five acres for cage-on-bottom sites, and three acres for floating aquaculture activities.⁷ Proposed projects greater than those size limits were required to undergo an individual permit process. This RGP has since expired and been replaced with the 2012 language of NWP 48 in addition to revised regional conditions for new and existing commercial shellfish aquaculture activities in Maryland tidal waters. However, the regional conditions for existing commercial aquaculture activities covered under the 2012 NWP 48 in Pennsylvania were allowed to remain unchanged.

Programmatic general permits (PGPs) are based on existing state, local, or other federal programs, and are designed to eliminate redundant efforts between Corps districts and state regulatory programs that provide similar protections to aquatic resources.⁸ In some states, PGPs replace some or all of the Corps' nationwide permits, which can result in greater efficiency in the overall permitting process.⁹ For example, the Jacksonville District of the Corps—encompassing Florida and Puerto Rico—utilizes its SAJ-71 PGP, which authorizes the deposition of materials for live rock aquaculture within federal waters off the Florida coast.¹⁰ Specifically, SAJ-71 is administered by the National Marine Fisheries Service (NMFS) through an operating agreement with the Corps that gives general authority to NMFS to administer the permit for live rock aquaculture projects sited in navigable waters of the United States within Florida's federal waters. To qualify for this permit, projects must not exceed more than one acre in size and must comply with other requirements such as mandatory site evaluations.

Nationwide Permit 48

Nationwide Permit 48 (NWP 48) permits commercial shellfish aquaculture activities predicted to have minimum individual and cumulative impacts. The permit “authorizes the installation of buoys, floats, racks, trays, nets, lines, tubes, containers, and other structures into navigable waters of the United States.”¹¹ Additionally, NWP 48 authorizes “discharges of dredged or fill

7. *Id.* at 2.

8. *Regional and Programmatic General Permits*, U.S. ARMY CORPS OF ENGINEERS.

9. *Id.*

10. *General Permit SAJ-71*, U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT (Dec. 17, 2015).

11. *Decision Document Nationwide Permit 48*, U.S. ARMY CORPS OF ENGINEERS.

materials into waters of the United States necessary for shellfish seeding, rearing, cultivating, transplanting, and harvesting activities.”¹² However, NWP 48 does *not* authorize cultivation of nonindigenous species (unless that species has previously been cultivated in the body of water in question), cultivation of aquatic nuisance species, construction of attendant features,¹³ the deposition of shell material back into waters of the United States as waste, or activities that directly impact more than one half-acre of submerged aquatic vegetation beds in “new” commercial shellfish aquaculture operations.

NWP 48 draws a clear distinction between “new” and “existing” commercial shellfish aquaculture operations. The 2017 reauthorization altered the definition of new operations to encompass areas where such activities have not occurred during the past one hundred years. This means that if *any* commercial shellfish aquaculture activity occurred at the site within the last one hundred years, the Corps would classify the operation as “existing” rather than “new.” New operations, unlike existing operations, must submit pre-construction notification (PCN) to the Corps. In addition, as noted above, new operations do not qualify for permitting under NWP 48 if they would directly impact more than one half-acre of submerged aquatic vegetation beds.

Collecting documentation to prove a site hosted an aquaculture operation in the previous hundred years can be quite difficult. Where modern technology makes it fairly easy to determine where aquaculture sites exist currently, it is much harder to locate evidence of property surveys that existed decades past. Such property surveys are necessary for a shellfish farm to take advantage of the hundred-year provision. For example, if an aquaculturist intended to operate in a location that was an oyster bed seventy-five years ago, it is unlikely the documentation required would be readily accessible or of sufficient quality. Instead of conducting a simple Internet search, he would likely have to scour old municipal records, or perhaps attempt to track down the descendants of the previous owner in order to obtain the information he would need to prove the site’s previous use. In this way, while NWP 48’s definition of “existing” shellfish operations seems to benefit potential growers, it could actually require significant amounts of work to profit from.

12. *Id.*

13. Such as docks, piers, boat ramps, stockpiles, or staging areas. (*Id.*).

Both new and existing operations must submit PCN under NWP 48 if their activities will include a species that has never been cultivated in the body of water in question. However, since the reissuance, PCN is no longer required for dredge harvesting, tilling, or harrowing activities for existing operations in areas with aquatic vegetation. While this change may seem counterintuitive, the Corps has determined most submerged aquatic vegetation is sufficiently resilient and able to recover from commercial shellfish aquaculture activities.¹⁴ In areas where there are greater concerns regarding adverse impacts, the Corps has called on division engineers to require PCN in their regional conditions to ensure that activities result in no more than minimal individual and cumulative adverse effects.¹⁵

Following the reissuance of NWP 48 in March 2017, the states conducted Section 401(d) and federal consistency review and made their decisions regarding how to best implement NWP 48 (see below). Some states chose to approve NWP 48 as is, some approved it subject to additional conditions, while others denied approval thereby preventing the implementation of NWP 48 in their state. These differences in implementation across the country can cause confusion among the regulated community as the federal permitting procedures vary among states. Operators in some states may be subject to more burdensome permitting processes than operators in other states, increasing costs and frustrations. The examples below highlight some of the various approaches states have taken across the country.

State Review of Corps Permits

Federal law provides states with the authority to review and place conditions on the issuance of Corps permits. Section 401(d) of the CWA requires that an applicant for a federal license or permit provide a certification from the state that any discharges from the facility will comply with state water quality standards and other applicable state authorities.¹⁶ States may approve, condition, or deny Section 401(d) certification. If issued, the Section 401(d) certification becomes a condition on federal permits, such as Section 404 permits. If certification is denied, the federal agency may not issue the license or permit. States review both individual and general permits under Section 401(d).

14. *Decision Document Nationwide Permit 48*, U.S. ARMY CORPS OF ENGINEERS (Dec. 21, 2016).

15. *Id.*

16. Claudia Copeland, *Clean Water Act Section 401: Background and Issues*, CONGRESSIONAL RESEARCH SERVICE (June 2, 2015).

Coastal states have additional authority to review federal permitting activities pursuant to the Coastal Zone Management Act (CZMA). Section 307 of the CZMA requires that federal actions (including federally permitted activities) both within and outside the coastal zone that have reasonably foreseeable effects on any coastal use or natural resources of the coastal zone be consistent with the enforceable policies of a state's federally approved coastal management program.¹⁷ This requirement, known as federal consistency, provides states with a strong voice in the federal permitting process. Like with Section 401(d) water quality certification, states may approve, condition, or deny federal consistency. If a state approves a federal permitting activity, it can grant a concurrence, which states the federal activity is consistent with the state's coastal management program. Then, the federal agency is free to issue the permit in question. However, if the state declines to grant such a concurrence, the federal agency is prohibited from issuing any such permit.

For example, Mississippi has declined to grant concurrence pursuant to the CZMA for any NWP's located in several listed categories of waters and requires applicants wishing to conduct aquaculture activities in such waters to first contact it for authorization. In this authorization process, the Mississippi Department of Marine Resources (MDMR) conducts a case-specific CZMA review and may then grant specific concurrence to a proposed activity under any NWP that is consistent to the maximum extent practicable with the enforceable policies of Mississippi's coastal zone management program. If MDMR declines to provide concurrence, an aquaculture project is prohibited from operating in the state, even if that project otherwise qualifies for authorization under a general permit.

Regional and State Implementation

On the federal level, Corps districts can either wholly revoke a NWP or limit the applicability of such by setting regional and state general permit standards. In the New England District of the Corps (encompassing Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), for example, nationwide permits have been fully suspended and replaced with general permits in each state.¹⁸ Each coastal state in the New England region (meaning every state, save Vermont) has a general permit that supersedes NWP 48. Connecticut's General

¹⁷. *Id.*

¹⁸. [State General Permits](#), U.S. ARMY CORPS OF ENGINEERS.

Permit 16 (GP 16) illustrates the type of specific conditions states may impose. GP 16 covers aquaculture projects and fisheries in the state that occur in navigable waters (which might otherwise be authorized under NWP 48). It authorizes the installation of buoys, floats, racks, trays, nets, lines and other structures in these waters for the containment and cultivation of indigenous species of shellfish and seaweed/kelp. GP 16 also authorizes anchored upweller floats, small-scale shellfish hatchery seawater intake/discharge structures, and discharges of dredged or fill material associated with cultivation (such as the bottom placement of cultch or spat-on-shell). The state has delineated PCN requirements and provides for streamlined permitting of certain projects through “self-verification” in much the same way NWP’s do. However, GP 16 does not authorize impacts to “Special Aquatic Sites” (including submerged aquatic vegetation) and requires that all facilities be installed and operated in compliance with the state’s aquaculture conditions.

State authority over shellfish operations is not limited to Section 404 and Section 10 permitting processes. States have broad authority to enact laws and regulations to protect their natural resources as well as authority to develop leasing programs for shellfish aquaculture. Aquaculture operations may be subject to a variety of state, and even local, laws. Some of these laws may be helpful to aquaculture operations, but others may pose barriers, even if the project otherwise qualifies for a Corps general permit. For example, Connecticut has certain buoy placement guidelines established by the state’s Department of Energy & Environmental Protection Boating Division which are meant to protect boaters and prevent accidents.¹⁹ These requirements often necessitate the placement of buoys or markers at aquaculture sites. However, Corps permit conditions may differ from state program marking requirements, such as those issued by a state boating division. So, while an aquaculturist may successfully navigate the Corps’ permitting process and prepare to begin operations, the Boating Division could delay the project if it does not conform with the Division’s individual buoy placement requirements.

In Virginia, aquaculturists wishing to utilize bottomlands must engage in a single, joint permitting process.²⁰ The application review process for these permits takes into account various local, state, and federal statutes governing the disturbance or alteration of environmental

19. *General Permit 16 - Standard Aquaculture Terms and Conditions*, DEPARTMENT OF THE ARMY/STATE OF CONNECTICUT.

20. See generally, Elizabeth Andrews & Angela King, *Guidance Materials on Starting or Expanding an Aquaculture Operation*, VIRGINIA COASTAL POLICY CENTER (2019).

resources, and the process is expedited, as applications must be independently, yet concurrently, reviewed by local wetland boards, the Virginia Marine Resources Commission, the Virginia Department of Environmental Quality, and the Corps.

An applicant in the New England District must submit their general permit application, including their project plans, to the Corps regulatory office either directly or through the appropriate state regulatory agency as required by the applicable general permit.²¹ The Corps then reviews the application and conducts the required review with federal resource agencies and the state environmental permitting authority. The Corps will only issue general permit authorization if they, the federal resource agencies, and the state all agree the proposal will have a minimal environmental impact. The authorization may also carry special conditions meant to insure minimal impacts. The Corps, either alone or in consultation with federal agencies, has the power to determine whether an individual permit review will be required.

Legal Challenges

When NWP 48 was renewed in 2017, the Seattle District of the Corps implemented only one regional condition—that the commercial harvest of clams by means of hydraulic escalator would not be authorized under the permit. This move angered many environmentalists, who believed the lack of additional stipulations would open the floodgates to rapidly expanding commercial aquaculture operations in the state.²² One nonprofit organization in particular, the Center for Food Safety (CFS), filed a complaint against the Corps in federal court.

In its lawsuit, CFS argues that NWP 48’s revised definition of “new commercial shellfish aquaculture operation” would allow shellfish aquaculture acreage in Washington State to double to an estimated 72,300 acres—constituting one third of the state’s shorelines. CFS believes this expansion could have serious environmental impacts, including increased pesticide and plastic use, as well as reduction and removal of eelgrass and other submerged aquatic vegetation—negatively impacting aquatic vegetation, forage fish, and other species. Additionally, CFS asserts that the Corps did not fully consider the environmental impacts of NWP 48 in violation of the CWA, the National Environmental Policy Act (NEPA), and the

21. *Guide for Permit Applicants*, U.S. ARMY CORPS OF ENGINEERS.

22. However, it is important to recognize that many states, including Washington, have additional regulatory frameworks in place to help prevent outcomes such as this.

Administrative Procedure Act. CFS argues that the Seattle District should have imposed additional regional conditions to mitigate environmental harm as well as produced an environmental impact statement.

CFS's ultimate goal is for the court to vacate the Seattle District's decision regarding NWP 48. Depending on what the court decides in this case, the implications for Washington's commercial aquaculture could be profound. If the court dismisses the plaintiff's claims, commercial aquaculture operations in Washington State could be given the opportunity to expand greatly and expeditiously under 2017 NWP 48's permitting process. However, if the court grants CFS's requested relief, shellfish aquaculture operations in Washington State could be faced with stricter permitting requirements in the future. Regardless of the outcome, this case exemplifies yet one more challenge that aquaculturist applicants face, despite the favorable language of NWP 48.

Following the filing of CFS's complaint, the Swinomish Indian Tribal Community soon followed suit and filed against the Corps as a whole, the Seattle District of the Corps, and NMFS in April 2018. The Swinomish Tribe's lawsuit takes issue with NWP 48's inadequate protection of eelgrass, inadequacy the Seattle District allegedly failed to mitigate by imposing regional conditions. Specifically, the Swinomish Tribe recognizes NWP 48's measures requiring avoidance of eelgrass beds in new operations that have never been cultivated yet contests the inapplicability of the avoidance requirement to eelgrass beds in "continuing fallow areas"—areas that previously hosted shellfish operations at some time but have not since 2007 when the first version of NWP 48 was issued. The Tribe notes that in North Puget Sound, thousands of acres of continuing fallow areas host mature eelgrass beds, making the non-applicability of NWP 48's mandatory avoidance measures egregious. The Tribe alleges this omission violates portions of the CWA, NEPA, and the ESA. Accordingly, the Tribe seeks to have the court 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 outcome of this case could also create significant challenges for aquaculture stakeholders in successfully permitting and operating shellfish farms. Accordingly, Taylor Shellfish Co., a shellfish aquaculture company operating in Washington, was allowed to intervene in the case in February 2019.

Conclusion

On its face, NWP 48 provides a streamlined federal permitting process for commercial shellfish operations. Aquaculture stakeholders must remain cognizant of the variations in applicability of NWP 48 across the country. Permitting processes vary from region-to-region and state-to-state. Even if applicants are successfully granted a shellfish aquaculture permit by the Corps, other agencies in a state can prevent them from actually making use of that permit due to additional requirements. Aquaculturists must remain aware of these potential challenges when they initiate the permitting process. While nationwide permits can make the process easier in many locales, NWP 48 is not always the final answer. With this knowledge, and adequate attention to detail, commercial shellfish aquaculture permittees will be able to more successfully navigate down the regulatory path toward commencing operation of their site.