

Stephanie Otts (00:01):

Good afternoon. Thanks for joining us. My name is Stephanie Otts. I'm the director of the National Sea Grant Law Center, and I'm excited to welcome you to the first webinar for our 2026 webinar series. Today, I will be providing an overview of federal aquaculture permitting in the United States. So welcome. And like I said, I'm glad you're here. Before we start, just some brief housekeeping. Please stay on mute just to cut down on background noise and to help us avoid some technical difficulties. We are recording the webinar and it will be posted on our website for later viewing as soon as we're able to get it up. So stay tuned for that. If you have questions, you can place them in the chat at any time. If I'm able to answer them in the moment, I will, but we will also have plenty of time for Q&A in the end.

(01:06):

And if you have any technical difficulties, I can't promise that we can fix them, but you may private chat Lauren, our project coordinator, and she'll see what she can do to help out.

(01:22):

So just for those of you who may be new to the National Sea Grant Law Center, we always like to start by sharing a little bit about us. We were established in 2002. We're housed at the University of Mississippi School of Law, and we're one of the 34 Sea Grant programs around the country, but we're unique in the network in that we are not a state-based program, but rather we're a national program that provides legal research, education, and outreach for the entire Sea Grant Network and their stakeholders. So we love working with everyone around the country. And if you're interested in our work, I encourage you to visit us at our website.

(02:06):

All right. So where to start when it comes to offshore aquaculture? And I think this is just a quick summary of what we'll be talking a little bit about for the rest of the webinar, but there is a maze of federal regulations when you're talking about marine aquaculture in offshore waters. And for the purposes of this presentation, we're going to be talking about aquaculture in federal waters, which generally speaking is three to 200 nautical miles off the coast. There are some exceptions for the Gulf, but generally that's what we'll be talking about. And there is no one overarching federal law that governs marine aquaculture. We do have the National Aquaculture Act, which established aquaculture as a policy priority for the country, and also created an interagency working group on aquaculture. What's just important to keep in mind is that multiple federal agencies have authority over aquaculture under a variety of laws, and that can change depending on what the mix of laws is different depending on what you're doing, where you might be, what species you're trying to raise, and that includes the federal agency that's going to be the lead for permitting.

(03:43):

So I'm not going to touch on all of these in the presentation today, but if you're interested in offshore aquaculture, these are the primary laws that you need to be aware of. You likely encounter the Rivers and Harbors Act, Clean Water Act, the Coastal Zone Management Act can come into play because there is a requirement that federal actions are consistent with state coastal management plans, even when they're happening in federal waters. Of course, you might encounter Endangered Species Act, Marine Mammal Protection Act, and then there's some provisions of the Magnuson-Stevens Fishery Conservation and Management Act that come into play as well.

(04:30):

But before we dig in, I thought it might be helpful if we took a step back and did a little bit of a jurisdictional history lesson. And that starts with the fundamental question of what is fishing? What do we mean? The definition of this term is really important and has been a driver of some of the major policy uncertainty around offshore aquaculture for a long time. And there is this, or sort of been answered now, but there was a fundamental question about does the Magnuson-Stevens Act grant NOAA and the

Regional Fishery Management Council's authority over aquaculture? And so the Magnuson-Stevens Act defines fishing as the catching, taking, or harvesting of fish and any operations at sea in support of such activities. Back in 1993, the NOAA General Council's office stated that aquaculture operations do involve the harvesting of fish.

(05:48):

Once they get to market size, you're going and getting them out of your pens and gear, and therefore aquaculture fell within the scope of the Magnuson-Stevens Act.

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That jurisdictional determination by NOAA General Council supported the development of a fishery management plan for aquaculture, which was by the Gulf Fishery Management Council, known as the Gulf Aquaculture Plan in 2009. So before the development of this plan, there were some authorities granted for aquaculture under various permitting provisions of the Magnuson-Stevens Act, but this was the first time a council worked to develop a fishery management plan for aquaculture. There were some delays, questions back and forth between the agency and the council, but eventually in 2016, NOAA published implementing regulations for that Gulf Aquaculture Plan in 2016, as that was the first set of regulations authorizing aquaculture, a management plan under the Magnuson-Stevens Act, it wasn't that surprising that a coalition of public interest groups challenged those regulations as unlawful.

(07:28):

So then we get the decision in Gulf Fishermen's Association in 2020. So in September of 2018, the US District Court for the Eastern District of Louisiana granted the plaintiff's motion for summary judgment, holding that Congress did not grant NOAA authority to regulate aquaculture as fishing under the Magnuson Stevens Act. NOAA chose to appeal that decision to the Fifth Circuit Court of Appeals that took a couple years to make it way through the system. And in August of 2020, the Fifth Circuit affirmed the district court's ruling. And what that meant was that the NOAA regulations implementing the Gulf Aquaculture Plan were vacated or don't exist anymore. They don't have the force of law. And I always like to highlight one of the key quotes from that case, which is, "If anyone is to expand the 40-year-old Magnuson-Stevens Act to reach aquaculture for the first time, it must be Congress." So we had this decision finding that the Magnuson-Stevens Act, the scope of that law was not broad enough to allow the Fishery Management Councils to develop fishery management plans for aquaculture.

(09:00):

NOAA chose not to appeal this decision to the US Supreme Court, so the ruling of the Fifth Circuit Court of Appeals in August of 2020 stands. And so what that meant was that was no longer a viable path for authorizing aquaculture in federal waters.

(09:25):

Around the same time we got that opinion, we got a pretty big executive order related to aquaculture on the federal level. So in May of 2020, President Trump, during his first administration, issued Executive Order 13-921, which was entitled Promoting American Seafood Competitiveness and Economic Growth. The kind of three main takeaways from this executive order for aquaculture is that it designated NOAA as the lead agency for environmental reviews for certain aquaculture projects in federal waters. Basically, they're designated the lead for environmental reviews if the project requires a permit for more than one federal agency, which is almost always the case. The executive order required development of nationwide permits for FinFish, which eventually resulted in Nationwide Permit 56 and seaweed, which resulted in nationwide permit 55. It also required identification of aquaculture opportunity areas.

(10:49):

So the aquaculture opportunity areas have been chugging right along since the issuance of that executive order. So NOAA published their notice of action and request for information in October of 2020. After that public comment fact-finding period, two regions were selected for further development, a section of

Southern California and the Gulf of America. The first step in this process is the development of an Atlas that kind of maps out what is happening in these regions and seeks to identify places in the region that would be good candidates for future aquaculture operations. So the Atlas was released for the Gulf and Southern California in December 2021, and then the agency undertook an environmental review process under the National Environmental Policy Act, which resulted in a final programmatic environmental impact statement in September of 2025, and they identified 13 target areas or areas for consideration in those two regions.

(12:17):

The other current process with respect to the AOAs is NOAA is working with the state of Alaska to identify aquaculture opportunity areas in Alaska. This process is a little narrower in that it will only consider shellfish and seaweed aquaculture and not broadly all aquaculture that might happen, but the Atlas for Alaska is hot off the presses released in February and encouraged you to check out NOAA's AOA website for all of the information, has all the documents, links to the Atlases, anything that you might be interested in learning more about.

(13:07):

So then I wanted to spend a little time talking about the nationwide permits. So nationwide permits are issued by the US Army Corps of Engineers to authorize categories of activities under either Clean Water Act Section 404, that's the provisions for the dredge and fill permits or the Rivers and Harbors Act section 10, but nationwide permits are intended to authorize only those projects that have minimal individual and cumulative adverse environmental effects. So in 2021, following that executive order, the Corps reissued 52 preexisting nationwide permits, and they created an additional five, which included the two required by the EOs. Those nationwide permits were scheduled to and did expire on March 14th of this year, so just last week. At that time, there were three nationwide permits related to aquaculture, nationwide permit 48, which had been around for a long time for shellfish, 55 for seaweed, and 56 for Finfish.

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The publication of those nationwide permits by the Corps of Engineers kicked off quite a bit of litigation by non-government organizations in the Pacific Northwest. So these two court cases are important to be aware of if you are trying to track what the heck is going on with nationwide permits. So in 2019, the Coalition to Protect Puget Sound Habitat sued the Corps of Engineers in District Court in Washington state over the issuance of Nationwide Permit 48, claiming violations of NEPA, the Clean Water Act, and the ESA for inadequate environmental reviews at the national level, so at the headquarters level when the Corps was adopting the entire nationwide permit and kind of package. The winner of that lawsuit were the environmental groups. That lawsuit was limited to the use of Nationwide Permit 48 in Washington state waters. So it vacated the permit in Washington, so shellfish aquacultures must now be authorized through individual permits or letters of permission if you're operating in Washington state.

(15:49):

Nationwide permit 48 remains available in the rest of the country, as long as you qualify for the activities fall within the restraints of that nationwide permit. Separately, in 2022, a different environmental group, Don't Cage Our Oceans, sued the Corps for its issuance of Nationwide Permit 56, that's the Finfish Nationwide permit, again in district court in Washington State claiming violations of the Rivers and Harbors Act and NEPA for inadequate environmental reviews. In both of these cases, the environmental groups were basically making the argument that the Corps of Engineers was conducting their environmental reviews at too high of a level to be effective at identifying and considering the environmental impacts of the projects, or the Corps was attempting to delegate some of the environmental reviews to the state and district level and after projects were appealed, or not appealed, after they applied for. So it was kind of a combination of being too vague at the national level and also trying to push down some part of the environmental review process to the district offices.

(17:20):

And so the courts have ruled in both cases that that's not the way at the time NEPA was to be implemented. And so the court ruled that Nationwide Permit 56 was unlawful and that no activities should be permitted under it as written. So at the end of 2022, you had this kind of major problem with Nationwide Permit 48 in Washington State, and you also had a court striking down completely nationwide permit 56.

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And that brings us to today. So the nationwide permits are valid for five years, and so the Corps of Engineers does have to reissue the nationwide permits every five years. So there's a five-year cycle. And on January 8th, 2026, the Corps announced the publication of the nationwide permits for the next five-year cycle. Those changes included modification of Nationwide Permit 48 to exclude its use in Washington state waters. So that preserved the availability of that nationwide permit for the rest of the country, but recognized what that court opinion required in Washington. There are also some modifications of nationwide permit 48 and 55 for seaweed to clarify US Coast Guard notice provisions. So there have been some tensions between the Corps of Engineers and the Coast Guard over what's required for lighting or getting on maps, notices to mariners and things like that. And so that clarifies when the Coast Guard is to be notified if someone is using one of these nationwide permits.

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And then the biggest change is that they decided not to reissue Nationwide Permit 56. So Nationwide Permit 56 for FinFish expired on March 14th. Anyone moving forward with a FinFish operation in federal waters or in stay anywhere the nationwide permit applies has to obtain an individual permit. And given how diverse the industry is geographically, what species companies are trying to grow, what gear they're using, it is just very unlikely that a nationwide permit could really cover all of the nuance and diversity in those projects. So they will need to take an individual permitting path. And then these nationwide permits are effective for the next five years and will expire in March of 2031. So we have a little bit before we'll go through that process again.

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So where does that leave us today if you are thinking about the path forward for offshore aquaculture? Well, one, I want to start by saying, because I think there's a lot of misunderstandings or maybe misinformation about this, but there is a path. There is a permitting path for offshore aquaculture operations. It is not quick. It might not be easy, but we know the permitting pathway for offshore aquaculture operations. But what may be confusing and certainly complicates the issue is that there is a split jurisdiction between the permitting agencies, depending on what species you want to grow. So if your operation is a shellfish or a seaweed farm, the lead agency is the US Army Corps of Engineers. It is likely permitted under the Rivers and Harbors Act, Section 10, which is focused on preventing obstructions to navigation.

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The reason that the Corps of Engineers has the lead on shellfish and seaweed farms is because the agencies have determined that these operations do not add food to the water and do not have the type of potential for discharges like waste or excess feed that a fin fish operation might have. And so they're limited to looking at whether the farm will be an obstruction to navigation. The Corps of Engineers also has authority under Section 404 of the Clean Water Act, which I mentioned relates to dredge and fill of material. There are some possible situations that maybe that authority would come into play too, but it's again, unlikely with a shellfish or seaweed farm that is off bottom. So that's section 10. But if your operation is seeking to culture fin fish, that moves the primary jurisdiction to the Environmental Protection Agency who will permit or you go through the permitting process under the Clean Water Act

for Section 402, which is the National Pollution Discharge and Elimination System, permitting for discharge of pollutants.

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So these operations are permitted under Section 402 because of the potential for pollutants to be discharged from the fin fish operation, which could be anything from fish waste, excess feed, escapes from the fish themselves, lost gear issues, anything kind of like that that would be considered a pollutant because the aquaculture gear itself is considered a point source under the Clean Water Act.

(23:47):

The other thing that just adds layers to the federal permitting process for offshore aquaculture is that there are several federal consultation and review processes. There's actually more than several. I've only shared the three main ones that to be aware of, but there's also other environmental statutes that have less likely review requirements such as depending on where you are, maybe you would need some review under the Marine Sanctuaries Act or if there's cultural resources there, the National Historic Preservation Act might come into play, but these are the three that are going to apply to almost every project in federal waters. So under the Endangered Species Act, Section 7A2, the Action Agency, which is the permitting agency. So here it's either the EPA or Corps of Engineers must consult with the National Marine Fishery Service, the US Fish and Wildlife Service or both to ensure that their actions are not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated credible habitat.

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So the Marine National Marine Fishery Service and US Fish and Wildlife Service, they have shared responsibilities depending on what species is being impacted. So US Fish and Wildlife Service has responsibilities over certain animals may come on land like walruses, and the National Marine Fishery Service has responsibilities for others.

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Then the Magnuson-Stevens Act requires agencies to consult with NOAA fisheries when they're authorizing an activity in an area that may affect essential fish habitats. And then of course, NEPA requires that federal agencies must consider the environmental impact of their proposed activities. And as I mentioned earlier, NOAA is the lead agency if an environmental impact statement is required for an aquaculture project that is permitted by more than one agency. And you can find out more information about that process through the NIMPS policy that was issued in January of 2024. So if that already wasn't enough and it wasn't complicated, there has been a lot of activity around the National Environmental Policy Act, which is causing a lot of uncertainty and while over time may streamline processes or help to move the processes along more efficiently, there's a lot of uncertainty right now.

(26:59):

So I think a good place to start with this is the US Supreme Court's decision in *Seven Counties Infrastructure versus Eagle County, Colorado*. This was not a marine case. This was a case about a rail line being built to move oil from around the west to get it from the production fields to the refineries. There was a challenge to the surface transportation board's environmental impact statement, and the coalition was arguing that the transportation board did not take full consideration of all of the impacts that might come from moving this oil from production to refineries and beyond. The DC Circuit Court of Appeals agreed with the coalition and vacated the EIS, finding that the Transportation Board had failed to quantify reasonably foreseeable upstream and downstream impacts from the increased oil drilling, such as increased emissions from all of that oil that would be refined and sold, and also effects of the refining itself.

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So the case was appealed to the US Supreme Court and the US Supreme Court reversed the Court of Appeals decision. The US Supreme Court found that the Transportation Board does not have any regulatory authority over oil and gas development. Their role is to review and approve that transportation line, the rail line, and that future oil and gas development is speculative and separate from that railroad project. So one of the arguments the coalition made was like, "Oh, well, once you get this railroad in place, that's going to make it easier or cheaper to develop more oil and gas, and that should be taken into an account." But the court said, "No, that's too speculative." So ultimately, the Supreme Court held that the court should defer to agencies about what impacts to include in an environmental impact statement. Now, this was a bit of a surprise when this court opinion came out because the year before in a very high profile case, the court was pretty clear that courts should not be deferring to agencies, and that was their decision in *Loper Bright*, which was actually National Marine Fishery Service had a rule about requiring observers on certain fishing vessels and the court had held that the agency wasn't entitled to deference with respect to that rule and vacated the rule.

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The Supreme Court distinguished *Loper Bright* from seven counties saying that in *Loper Bright*, the agency was interpreting a statute and that involves a question of law and they're not entitled to deference for that. But in seven counties, the agency was exercising its authority granted by statute, which was a question of fact and that they should get deference on that. So you can kind of see the difference as well in that this was an oil and gas development project and that is a priority. And there has been some criticism for a long time that NEPA is slowing down the development of energy or other infrastructure projects that the country needs.

(31:06):

So the impacts of seven counties are starting to become pretty clear and not really surprising that after seven counties, courts appear to be deferring more to agency expertise and narrowing the scope of NEPA review. So I think the big takeaway moving forward that federal agencies are likely now in a better position to win court challenges to NEPA decisions. So say an NGO wants to challenge an environmental assessment of an aquaculture project. NOAA and the National Fishery Service may be in a better position to defend that court challenge than they had been prior to seven counties. We have some examples of where courts are doing just that, deferring to the agencies. So the Ninth Circuit upheld a Bureau of Land Management Environmental Assessment for an oil and gas project in Alaska. In New Jersey, a court upheld the decision of the National Marine Fishery Service to rely on a categorical exclusion, which is a simpler process for complying with NEPA instead of preparing a full environmental impact statement for an offshore wind farm.

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So that is a decision that would support reliance on simpler processes under NEPA. And then there was also a DC Circuit Court case upholding an environmental review of a natural gas pipeline in West Virginia.

(32:52):

This is probably more in the weeds than most people may want to know, but I think it's important to cover that there are also changing regulations afoot in the federal agencies that are going to create some uncertainty for a while as everybody gets used to these new regulations, what they mean, how they should be interpreted. So in 2023, Congress enacted the Fiscal Responsibility Act to amend NEPA with provisions aimed at reducing delays and increasing efficiency. For example, they required set time limits for conducting an environmental review. We then got a pretty big court case in November of 2024 where the DC Court of Appeals ruled that the Council for Environmental Qualities, NEPA regulations were beyond the council's legal authority. So the Council for Environmental Quality is a department unit within the Office of the White House, and it had developed regulations that were umbrellas that all of the other federal agencies could follow when they were implementing NEPA processes.

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So in November, district court said, "Nope, they didn't have authority to adopt those type of umbrella regulations." That was followed by an executive order at the very beginning of the second Trump administration that revoked the original executive order that had delegated NEPA rulemaking authority to CEQ. And then CEQ followed up by rescinding its government-wide NEPA implementing regulations effective April 11th. So for about a year now, we haven't had government-wide NEPA implementing regulations.

(35:05):

So what that meant was that federal agencies, because needed to adopt new standalone procedures, Congress has not revoked the National Environmental Policy Act. It is still on the books. It is still good law and agencies have to follow it, but they can no longer rely on those government-wide CEQ regulations. So there's been a lot of activity in the federal agencies and everybody's doing it a little bit differently. So the Department of Commerce updated an administrative order in July 2025, which updated their procedures that they're going to follow. And they also have a regulation moving through the process that would make changes to their list of categorical exclusions. The Department of Army, which covers the Army Corps of Engineers, rescinded a majority of their rules in July of 2025, and they've issued implementing procedures in a guidebook. So it's not in their regulations anymore. It's in a handbook.

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And then most recently, the Department of Interior finalized their regulations, which do have some fairly significant changes for the Department of Interior, which would cover Fish and Wildlife Service. So litigation is expected, especially on that DOI rule. I believe court challenges have already been filed to challenge that final rule. And then more changes are likely on the way from the agencies as they continue to implement these standalone procedures and update their handbooks and their administrative orders and all of that. So again, it's a lot of moving pieces all at the same time in a system that is already pretty layered and complicated.

(37:01):

So with that, broad overview of where we are with respect to aquaculture, I thought it might just be informative to walk through what I'm referring to as a cautionary tale. There's still moving its way through the process, so I don't want this cautionary tale to be taken as if there will not be a positive outcome at the end, but I think there's a lot to be learned from the experience of Ocean Era as they have moved their Velella Epsilon project through the process. So Ocean Era received funding from NOAA via Florida Sea Grant in October of 2017 to trial a net pen aquaculture project in the Gulf. So just keep that start date in mind as we go through the following slides. It's been almost 10 years since that funding was first received.

(38:09):

The original project was for the culture of a single cohort of about 20,000 Almaco Jack, which the company eventually identified a site 45 miles offshore of Sarasota. So 2018, the NPDES permit application was submitted to the EPA. I think it's important to highlight how many assessments had to be prepared as part of that permit application review process. So EPA prepared an ocean discharge criteria evaluation under the Clean Water Act. There was an essential fish habitat assessment under the Magnuson-Stevens Act, biological evaluation to comply with the Endangered Species Act, and there was also an environmental assessment. Now, at the end of that environmental assessment, the agency EPA concluded that there was a finding of no significant impact, which meant they did not have to prepare an environmental impact statement and the permitting process could move forward. So in the middle of all of this, there was a public comment period held in 2019, and the permit was issued in October of 2020.

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So the one thing that's a little different with EPA permits that you may not have experienced if you've only engaged with the Army Corps of Engineers or another federal agency is that EPA has its own internal administrative body that hears challenges to permitting decisions, and that is the Environmental Appeals Board. And EPA regulations require that parties exhaust their administrative remedies before going to federal court. So if you want to challenge an EPA permitting decision, you first have to file a petition for review with the Environmental Appeals Board. So in 2020, Food and Water Watch and Friends of Animals filed separate petitions requesting the EAB review the Ocean Era permit, alleging violations of the Clean Water Act, Endangered Species Act and NEPA.

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Took a couple of years to make it through the process, but in May, the EAB denied most of the NGO's claims, but did remand the permit to EPA to clarify potential impacts to surrounding marine areas. So EAB identified a few areas that they wanted more information about. The EPA did that and reissued the permit on May 6th, 2022. And then we went to court or they went to court, not me. So following an EAB review, permit challenges may be filed in federal court. So once they got that review, Friends of Animal and Food and Water Watch filed separate petitions for review in different courts in September 2022. Eventually, those cases were consolidated into the DC Circuit Court. Those consolidated petitions remain pending. They are still active. There are still filings in those court cases. The petitions were partly remanded to the EPA in December of 2023, however, to allow the agency to consider and process Ocean Era's request for a permit modification.

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And so this one, it was probably maybe not a total surprise considering that the original funding application had been back in 2017, but in May 2023, Ocean Era notified the EPA that it wished to modify its permit to change the fish species from Almaco Jack to redrum and the net material from copper to monofilament. And the request was submitted in July 2023. Because the original permitting applications did not consider the potential environmental impacts of the escape of red drum into the Gulf instead of Alcamo Jack or the different gear, the EPA determined that it needed to go through the process again. So there was a couple years delayed while EPA did the additional assessments it needed under the modified permit application, but the EPA did issue the modified permit on May 15th of 2025.

(43:01):

And we are back to EAB review take two. So this was a new permit with new conditions, and those same NGOs filed a petition for review with the EAB in June, but they basically raised most of the same arguments under a variety of environmental laws. This decision is also pretty hot off the presses. The EAB issued its decision February 13th of this year. Again, they denied the vast majority of the NGO's arguments, finding that the petitions failed to meet threshold procedural requirements for the environmental laws, but they did remand the permitting decision to the EPA to reconsider its decision regarding whether pathogens or microplastics will cause unreasonable degradation of the marine environment. And so that's where we are. The EPA is reviewing the EAB's decision and determining how to move forward. Yesterday, there was a filing in the DC Circuit case where the EPA asked for another 30 days for that case to be held paused for another 30 days while they kind of complete this permitting process.

(44:22):

So still in a bit of a holding pattern while the EPA works that through. So what's next? The rest of that litigation, right? There's already a court challenge filed on that permit. The court has been holding that case in abeyance until this modified permit makes its way through. So at some point, I anticipate the EPA will reissue the modified permit, and then that court case will start moving again with filings and hearings and whatever comes next with respect to that case. So just quick takeaways. I would caution that Ocean Era's experience should not be considered representative of what will happen to every company that attempts to get a permit from the federal government for offshore aquaculture. The first permit application

for a FinFish operation and federal waters filed by any company would face heavy litigation risks. It's just the danger of being first out of the gate when it comes to a new controversial activity like that.

(45:38):

Also, with respect to the length of time, the permit modification request, and this is not intended to suggest judgment of any kind because again, there may have been very real operational reasons why those changes were needed, but that request being initiated by the applicant gave the NGOs a second bite of the apple and resulted in delays. And so that is not something that would likely be present in every permitting application moving forward. So although at least to lawyers, I think the permitting process is clear. The timelines for approvals can be quite extensive due to a variety of factors, including agency capacity to keep the process moving and just the amount of information that is being sought for these operations.

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So future outlook, don't have really any words of wisdom to share other than it could be a bumpy road, a little rocky. I know that there are multiple permit applications kind of working their ways through the system. The agencies are working on it. There are different stages of environmental review for different projects. So I think it is moving forward. We're learning a lot about how these processes work as these companies go through the process, but it's not impossible, but of course it's not the most streamlined system that you might have for that. So with that, I think happy to take questions in the chat if people have any. And while everyone's thinking, just wanted to thank everyone for joining us and for the time. And yeah, welcome questions in the chat. Right. Well, maybe give it another 30 seconds or so. I know that was a lot of information to take in, so it may be hard to come up with your questions right now, but certainly you can contact me at any time.

(48:11):

Oh, they're starting to come in. Yes, let me see. I'll go to the top. Kevin, yes, if you want to come off mute to ask your question, you can.

Kevin (48:21):

Thanks, Stephanie. I have two, but I'll ask one and then see if there's time later for the other one, I guess. I'm curious your thoughts on the litigation that involves microplastics or the concerns that have been raised about introduction of microplastic concerns from that fish farm and the Gulf proposed fish farm. Do you see, if that's successful from the NGO's perspective, that would that then open up to possible litigation on other blue economy uses that put plastics in the water?

Stephanie Otts (48:59):

Yeah, I think that's an open question right now. A lot could depend on how EPA addresses that in the modified permit when we see that. There may be less of a risk of it opening up because of the seven counties litigation if agencies are receiving more deference about what impacts to include in their environmental reviews, if they have reasonable justification for why they are not considering microplastics, that might work for them. So I think that's still something we'll have to wait and see how that might move forward. And also whether that argument gains more traction in the DC Circuit Court than it did in the EAB, because the EAB remanded it because it hadn't been considered.

(50:06):

Thanks. Yeah. So one of the questions was regarding the points on the AOAs, "do you have any idea of what species may have been targeted for the zones?" So I must confess that I have not thoroughly read any of the atlases, but it's my understanding that they are just looking at areas that are potential candidates for aquaculture. And I don't know. I'll leave it to my NOAA colleagues on the call to say whether there are species information for that. "So if a state has a geographic location description, do they have a say an aquaculture?" So it could depend on what arrangements the state has with respect to their coastal zone

management program and where the split in authority happens. Some of the boundaries are a little blurry. So Rabbi, I'll have to get back to you on that one.

(51:11):

"If there was a magic button you could press that would simplify the permitting process, what would do it, in your opinion?" So with the caveat that I've never tried to get a permit through the federal system, I think that one thing that might help is if there could be one place to submit the application and then have the federal agencies work behind the scenes to move that through the process so that the applicants don't necessarily have to figure out which agency they need to be working with. So getting a little bit more organized on our side.

(51:55):

So another question, "do you have a perspective on which agency is best suited to handle comprehensive review and control?" So I am an environmental lawyer by training, and that is my background. And so I think that there is value in ... Each agency has their own responsibilities and each agency is set up to look at different things. And so I think in something as complex as offshore aquaculture, no one agency can really consider all of the impacts. So I don't personally think it's bad to have multiple agencies looking at it. I think what we're likely lacking is an efficient system for the agencies to communicate and keep the process moving when they're doing their individual reviews under environmental laws. Yep. Good. All right. Well, I think that's it. Kevin, did you have one more? We've got a couple

Kevin (53:05):

More. I'm going to hold my other one, but thank you.

Stephanie Otts (53:07):

Okay. Yeah, good. Great. Yeah. Yeah. And thanks for the NOAA folks for putting some more information in the chat about the AOAs. Great. Okay. Well, thanks again everyone for joining us. I really appreciate it. Again, it's a super complicated area of law. It was only ever to touch on some of the most important developments I thought are kind of brewing right now, but feel free to reach out at any time. And as I mentioned, I have recorded this and we will post it on our website as soon as we can get it up. So thank you.