- Stephanie Otts: Well, good afternoon, everyone. Thanks for joining us during our summer webinar series for shellfish aquaculture. Today we're excited to have one of our project partners, Read Porter, presenting on his research related to some of the operational limitation that shellfish farmers may encounter.
- Stephanie Otts: Before we jumped into that, I wanted to give a brief overview of the project to provide some context. So I'm Stephanie Otts. I'm the director of the National Sea Grant Law Center. This webinar is actually the final stages of a project that was funded back in 2017 by the NOAA National Sea Grant Office that was a partnership between a number of Sea Grant legal programs throughout the country to look at particular legal impediments, challenges, or barriers to shellfish aquaculture around the country.
- Stephanie Otts: The project team involves a variety of partners from Sea Grant programs in Rhode Island, Georgia, Virginia and California, and the overall objectives of the project were to, like I mentioned, investigate these impediments or barriers. The project resulted in the development of eight case studies that are available on our project website, which you can reach by going to the National Sea Grant Law Center's homepage and clicking on projects or following the link below. We are recording the webinar, and we'll make it available on our website later today or tomorrow morning, and you would also be able to access the slides that way.
- Stephanie Otts:So with that introduction, I'm going to turn it over to our presenter today, ReadPorter, to talk about his case studies and the research that they've been doing.
- Read Porter: All right. Okay. I think everyone should be able to hear me and now see my screen, so thanks again for joining us. I am Read Porter. I'm the senior staff attorney here at the Marine Affairs Institute and the Rhode Island Sea Grant Legal Program. We're based at the Roger Williams University School of Law in beautiful Bristol, Rhode Island. I'm going to be talking about some work that we did on this project looking at an element of siting of shellfish aquaculture facilities that doesn't get as much attention as setting the grow-out areas, and that's some of the operational considerations that go into siting these facilities.
- Read Porter: Before I get into that, two quick slides about us. We are the only Sea Grant legal program in the Northeast, and we try to support informed decision making. So obviously, like any Sea Grant program, we are non-advocacy and we don't do any litigation. So we're trying to provide good non-partisan information to our stakeholder community.
- Read Porter: I run what's called the Rhode Island Sea Grant Law Fellow Program, and it's an experiential education program where current law students do work on ocean and coastal law and policy topics for stakeholders. In fact, this work that I'm going to talk about was largely conducted by three of my students. Mitchell Ramic did the work on boat ramps and Joseph Bingaman and Jordan Viana did

Operational Limitations — Nursery Siting and Boa... (Completed Page 1 of 11 08/21/19) Transcript by Rev.com work on nursery upweller siting. So I want to make sure that they get credit for their hard work on this. Some of you may have seen Jordan actually presented on some of this work at MACE in January and did a great job. So by presenting here, they're all out for the summer having their vacation, and I'm stuck here with you. Any questions, you can always ask me about it, as some of them have actually graduated.

- Read Porter: So let's get down to brass tacks. Most of the legal research on shellfish aquaculture siting to date has really focused on initial permitting decisions around grow-out sites, and that's for good reason. It's in a lot of places quite hard to get those permits for leases for grow-out, but that's only one piece of any aquaculture business. You have to also consider a variety of related infrastructural and operational needs that are required to run a successful shellfish business. In that sense, shellfish aquaculture is really part of the working waterfront economy, and it faces a lot of the same challenges that other aspects of the working waterfront community are facing. Limited access to industrial or commercial waterfront sites for doing commercial work rather than residential boating or recreational boating, excuse me, or similar things of that nature. And so those are the sorts of questions that we get a lot of in Rhode Island where our working waterfront sites are restricted, but we're seeing a lot of growth in our aquaculture.
- Read Porter: Growers need ... In order to be successful, they need daily, year-round vessel and raft access to get out to those grow-out areas where their products are. They need a place to land product as well as to load and offload gear. They need a place to store the gear, especially in the winter when it may be at risk due to ice, or when your gear is needing to dry out, wet storage may be infeasible. And those gear storage areas may cause some aesthetic complaints from neighbors.
- Read Porter: And then you also need a place where you can get your seed up to a size that's appropriate for placing out and grow-out. And in our region, a lot of folks like to use upwellers due to the speed and effectiveness of that type of a nursery facility. So you need to have a place where you can install your upweller system.
- Read Porter: Where can you do that? Our Coastal Resources Management Council, which is our coastal zone agency here in Rhode Island, has noted actually in its regulations that our working waterfront sites are limited and declining. This is actually a quote from our what we call our red book, and it notes, "We don't have new areas that we can put in new marinas, and the places that we do have marinas have to be protected or we're going to be losing the ability to have sites for activities like this."
- Read Porter: We've seen a lot of our urban areas such as Newport, the amount of working waterfront sites that are available to our industries have become more limited and that's a challenge that I think is faced not only by the aquaculture

community, but by fishermen and other aspects of the working waterfront community.

- Read Porter: To give those of you who are not local to or experienced with Rhode Island a sense of what our local context is, we have a fairly small but substantially growing shellfish aquaculture community here in Rhode Island. Most of this is focused on oyster aquaculture, as is common in the Northeast, although there are a number of other species also under culture. A lot of these sites are coastal subtidal plots. Most of them are quite small in scale, under 10 acres, and that means that they're more intensive. There are some bottom planting lease sites out there, but many of them are rack and bag systems where you're producing a commercial scale of a product on for the half shell market on a small acreage.
- Read Porter: In some areas, our acreage is actually limited by salt ponds, and you can see one of the salt ponds is circled on the map. No more than 5% of those ponds can be placed in aquaculture lease, and that each of those ponds is really approaching that 5% limit. So there are some siting constraints in our regulations. In other areas, for example, Narragansett Bay to the right, that limitation does not apply. So there are continuing sites available and continuing interest in the growth of this industry.
- Read Porter: As the industry continues to grow, however, each of those businesses needs to be able to find the working waterfront infrastructure that it needs in order to be successful. So we have an increased demand for working waterfront infrastructure but a static or decreasing supply. And that sets up an opportunity for some challenges obviously to occur.
- Read Porter: Number one is, for a number of reasons that I'll go into, it's important to have your land-side infrastructure in the same geographic location as your lease site. And that can be a challenge in a place like a salt pond, where there's a limited amount of opportunities for that. A lot of our marinas may be changing in ownership or some have converted to a dockominium structure, and those owners may be unwilling to allow continued use or new use by growers. They might prefer to keep things for recreational users, and that may constrain the supply. And then in some places, although generally not in Rhode Island, private residential docks may or may not be able to be used for commercial purposes. So the availability of that waterfront infrastructure does present a number of challenges, and we've seen that happen in the real world where there have been issues.
- Read Porter: We had a grower collective that actually had to purchase a marina or chose to purchase a marina to ensure that they would continue to have slips available, a place to store their gear in perpetuity rather than being subject to the whims of the current marina owner. We've had legal disputes about whether new upwellers could be placed in a dockominium situation, and that actually posed a risk to an existing upweller system that was in that dockominium as well. And

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then there's been concern in the area for folks that are relying on public boat ramps to get their vessels in the water, load and offload gear and product, that state agencies may restrict access for commercial use to those boat launch locations, and that can be a problem. In Connecticut, actually, somebody did receive, I believe, a ticket for unlawful use of a state boat launch. So that's another potential avenue where people could rely on those public boat ramps, but that can raise legal problems as well.

- Read Porter: So today I'm going to talk about two case studies that we did. Number one is, this first one is on nursery siting or a really upweller siting, but nurseries more broadly, and I'm going to look at Ninigret Pond as a good case study for that to explain some of the pros and cons and legal challenges around nursery upweller siting. The second one is on that boat ramp situation, and I'm going to look a little bit more nationwide on that in terms of how different states approach commercial and aquaculture use of state-owned boat ramps.
- Read Porter: So nursery siting. Our farms here in Ninigret Pond ... This is the area that was circled on the map a few slides ago. Our farms are generally located on the overwash behind an undeveloped barrier beach. This is a picture of one of them. It's a mixture of bottom plant and rack-and-bag culture. The salt ponds are an area that's heavily used for recreation and is very beloved to folks in the local community for a variety of uses. It's sort of our swimming pool, I guess, in the summertime for the South County communities, and so a lot of the decisions around aquaculture in these areas can be a little bit fraught from a community perspective.
- Read Porter: Be that as it may, these growers need to have nurseries, and they have a couple of different nursery facilities that they can choose from. You could do a rackand-bag system at your grow-out site potentially. There probably would be if it was possible some floating upweller systems or FLUPSYs or Taylor floats placed at the grow-out site. The picture in the center there is is a floating upweller system. You can do a floating upweller at a remote location such as a marina or you could have a land-based facility, and that's shown sort of at the right, where you've gotten an upweller on land using water that's piped in. The FLUPSY is preferred by many growers for a variety of reasons. So we were thinking about how can that be done? How does the law limit where and how you can do that particular kind of system?
- Read Porter: Before we get into the details of that, you should know that in Rhode Island we have basically three administrative or governmental entities that are mostly governing where and how aquaculture can happen. The Coastal Resources Management Council, CRMC, is our coastal zone agencies, and they regulate use of submerged lands and coastal land areas including those aquaculture leases. The Department of Environmental Management, or DEM, regulates that sort of the culture organisms and the water quality. And then we have local governments. Local governments in Rhode Island do not have authority in

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submerged lands beyond the high tide line, but they do have obviously authority over land use on land through their planning and zoning authority.

Read Porter: So thinking about CRMC first, you do need a assent from CRMC and a lease in order to set up your grow-out location as well as your nursery site. In order to get that approval, that's a category B activity is how we describe it, and basically that requires in most cases a public hearing, and that's in this area often a contested public hearing. Your activity also has to be consistent with the water type classification of that water where you're looking to put it. In this map here you can see that Ninigret Pond is a combination of conservation areas and those sort of border a national wildlife refuge and low intensity uses. So this is intended to be an area where there's not a lot of industrial development. There are two existing marinas and they're circled here in black. Those would not be allowed now if they renew because of the water type, but they are allowed now.

Read Porter: In practice, obviously those applications for aquaculture grow-out sites have been approved, but they do ... The assents for those from the council have included some important stipulations, and among those is this one here. This is cut and pasted from the actual stipulations on that assent, and it says, "Vessels, barges or floating docks shall not be anchored or moored at the lease site unless the permittee is actively engaged in operations there." So that means you can't leave your upweller system at your grow-out site if you're not there actively working on it. So that basically prohibits you from doing a floating system at your lease site. Now, this is on a specific grow-out location and it's possible that in other locations where there's less community concern or where it's a different type of water that they might allow those floating docks or barges to be moored or anchored, although I have my doubts about how likely that would be.

- Read Porter: This does mean that you could do a rack-and-bag system. There's no stipulations that you have to use organisms over a certain size, so you could do a rack-and-bag system. But as I said before, for a variety of reasons, that's less beneficial for the community or for the industry. So basically that means that if you want to have an upweller, you need to do it at a remote location.
- Read Porter: Happily for growers, CRMC regulations streamlined permitting for those remote upweller locations. We have a specific section in our regs that makes it easy to do a category A assent for those remote sites. You do need to go through a separate assent process, but generally there's no hearing required and you can go ahead and get an assent for an upweller located at a marina, residential dock, or pier, and this is ... On this map you can see that there are assents for that. The one that's circled, you can see on Google maps does appear to be a FLUPSY, and this is beneficial for a couple of reasons. For example, you can sometimes get access to shoreside power or water if you need it. It's quite easy

to get to these facilities when you want to check on your stock. So that's all well and good.

- Read Porter: One limitation is you want your marina definitely to be in the same biosecurity zone as your grow-out location. If an Ninigret grower was to put a nursery upweller in Judith Pond, they would need to get a pathology test every time they wanted to move stock to the grow-out and that costs money and costs time. So there's a really strong incentive to make sure that your remote location is in your same location. In other areas, for example, most of Narragansett Bay is the same biosecurity zone. That wouldn't be as much of a problem.
- Read Porter: So we've sort of dealt with CRMC, but what about DEM? As I noted earlier, DEM is our water quality regulator in the state of Rhode Island, and they classify waters as approved, restricted, or otherwise for shellfish. The Western area of Ninigret Pond, which is where all the aquaculture is obviously, is approved for shellfish. The eastern area of the pond gets a lot less flow and is prohibited. So we wouldn't see any upwellers or, frankly, grow locations, in that area until that changes or unless that changes.
- Read Porter: The problem comes up when you think about seasonal closures of marina areas for shellfishing, and those are the very same areas where those upwellers are supposed to be. What is a grower to do in that situation? Well, happily, it is possible to get an exception for growing of seed in marinas and restricted waters. You have to have a CRMC assent for that and an operational plan. With those you can cultivate seed up to an inch and a quarter in those restricted waters followed by depuration in an unapproved grow-out location. And so that allows nurseries in those marinas' seasonal closed areas.
- Read Porter: This does not apply to land-based facilities, and I'm not going to go into that, but those do need an additional pollutant discharge permitting because you're pumping water out of a pipe that's going to require an additional permit, and that can be a lot more challenging. So in this sense, this DEM exception really allows remote FLUPSY development in areas that are acceptable for creation of seed and operating a nursery upweller.
- Read Porter: Now, what about local ordinances? I mentioned before, I think that local authority ends at the water's edge, but in some cases, those nursery facilities may have some sort of nexus to the land that makes the local government's land use and zoning restrictions apply to them. If that happens, that land-based facility or whatever that facility is that's subject to local land use has to be located in a zone that allows aquaculture. A public hearing is often needed, and as I noted before and many of you already know, those public hearings can be extremely contested, especially at the local level. In some cases, you might need a special permit as well.

- Read Porter: So how would this play out? Here's Ninigret Pond again, and you can see that this land use or this zoning map that's showing is pretty complicated, but the marinas are in the red and gray striped areas. I'll point to them here with my mouse right here. And up here and in other locations there's not ... All the other locations bordering this pond are either yellow, which is residential, green, which is open space, or there's a little bit of blue here that actually doesn't touch the pond, but that would be municipal use. So if you're willing to locate a facility in one of those areas, you'd have to figure out whether aquaculture is allowed there.
- Read Porter: Now, that raises the question of what is aquaculture? Is it agricultural use? Is it hatchery use? Is it commercial use? Or is it none of those? Each town has its own uses and its own zone definitions, so this is not something that you could apply elsewhere, but in this particular town, these are the uses that are in their zoning regulations. You can see that depending on how that aquaculture facility is categorized, it could be prohibited if it was a commercial use in a residential zone versus allowed or there could be a special use permit requirement if it was a hatchery in a residential zone.
- Read Porter: If the building inspector in the town decides that it's none of these categories, then that building inspector would determine on their own whether or not it should be allowed or not, and you'd probably have to get a special permit for that as well. So I'm sure that many of the folks here who are on the call who may have had experience working with local zoning, this could be a fairly challenging process to have to go through and one that involves a fair amount of uncertainty. So I think we'd expect that most folks would want to avoid that.
- Read Porter: And there are probably some ways that you could do that. In particular, thinking about ways to avoid that nexus with land might be useful. So solar power, for example, means you wouldn't have any need to connect to land power, and that would definitely avoid that particular issue.
- Read Porter: In summary, we can see that it would be difficult to get your assent for floating gear at your grow-out locations. You couldn't do a FLUPSY there. You're limited to rack-and-bag, which means you have to get a second permit approval for a remote FLUPSY if you wanted to do that, which does have a streamlined CRMC assent process and is allowed even in restricted areas as long as you have a declaration processing in place. But it may also raise some questions with some of that local land use.
- Read Porter: If you're doing a land-based system, there's a couple of additional challenges that you have to meet, and that includes water pollutant discharge permitting under the Clean Water Act as well as local zoning approval. And obviously, most people that are in this situation would look at that remote marina-based FLUPSY and say that that's the solution for me. So that's case study one.

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Read Porter:	Case study two, Access to Public Boat Launches. This is going to be a little bit shorter, but we've seen this before. There's a lot more boats. There's limited berthing opportunities and our state regulations say there's a heavy demand on launching ramps. They're in short supply, poor condition, have limited parking capacity. That can create a situation where there's not enough of the resource to go around, and growers might end up on the short end of the stick. Now, some growers might use the launches to to access lease sites to launch their vessels or their rafts to load or unload gear and land product for sale.
Read Porter:	There have been reports in Rhode Island that state personnel have suggested prohibiting growers. That has not happened to my knowledge to date, but it could be something that comes up again in the future. Ideally we'd want to make sure that that resource is maintained for everybody if we can avoid those conflicts.
Read Porter:	One reason that that conflict might arise is that most state boat ramps are actually constructed with mostly federal money, and that money is provided by the Dingell-Johnson Federal Aid in Sport Fish Restoration Act. You might also know this as Wallop-Breaux, which was an amendment to that, to the Dingell- Johnson Act. And that provides a 75% federal cost share for developing, among other things, recreational boating facilities like boat ramps.
Read Porter:	Now, the trick to this is that the funding that the federal government is giving out comes directly from taxes and fees paid by recreational anglers in terms of boat gas, excise taxes, and things like that. So along with that federal funding comes some conditions. Specifically, those facilities must be used for the purpose authorized in the grant, which is to say recreational boating and fishing. That said, a state agency may allow commercial, recreational, and other secondary uses of a grant-funded parcel if they do not interfere with the authorized purpose of the grant. Basically, a state can allow a commercial use of a boat ramp as long as it's not interfering with recreational boating or fishing.
Read Porter:	The states are the ones who determine whether or not that could be allowed. So what we did was we went out and looked at all the 23 coastal states and Not all. We looked at 23 coastal states, and we looked at what they have said in terms of whether they allow or don't allow or allow with conditions commercial uses. We looked at commercial activity, because none of them says anything about aquaculture in this context and none of them explicitly authorizes commercial activity as a default. So if they say something, it's either to prohibit it or to limit it with conditions.
Read Porter:	Here's a little map about what we found. The three models that we found were silence, where there's no explicit statement about whether commercial activity is allowed, a prohibition, oftentimes with an exception of some kind. So commercial activity is prohibited with an exception, and you can see that's less common. And then some states, a few states authorize commercial activity
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under certain conditions or for particular uses. I'll go through a couple of models for this.

- Read Porter: Prohibition examples, and I'll skip silence, because there's nothing to share. It's silent. But prohibitions are ... Here's two examples of this. I mentioned the Connecticut example earlier, where somebody was cited for violating this rule. No person shall engage in any commercial activity at a boating access area unless so authorized by the Department of Environmental Protection.
- Read Porter: They issued one authorization in that state for Department of Transportation bridge repair staging, which I suspect is a larger imposition on recreational boating than shellfish growers, but that was a state use of that state facility. So you can see why they decided to do that.
- Read Porter: In other places, you also, this Alabama one, you need that specific written authorization for commercial loading or unloading. That may or may not be easy to get, and in most cases what we heard was that it's not super easy to get those sorts of written authorizations.
- Read Porter: The five states with a permit or fee system make it a little bit more structured or easier to get those special permits to allow commercial activity under certain conditions. Sometimes these are for particular activities. For example, Hawaii. Its a permit system focuses on sort of catamarans for vessels, vessels with passengers for hire, taking people out on sunset cruises and whatnot.
- Read Porter: In other places it may be special rules for fishermen. So here's a couple of specific examples of that. The commissioner may grant a special use permit as long as there will be no adverse impact. That's hearkening back to that federal rule. The Virginia one talks about commercial fishermen are not required to pay a special specific fee, but you do have to pay to use the boat launches in state parks. So there are ways where these states are trying to generate some income for commercial use of those state facilities and to make sure that they are consistent with that recreational use.
- Read Porter: So if we consider these three options overall, what are the benefits or the drawbacks of each of them? With silence, it's sort of a zone of uncertainty, where growers can use these facilities currently most places. They don't have to pay for it, they don't have to get a permit, but their continued access is a little bit contingent on and uncertain, and that status could change.
- Read Porter: On the other hand, prohibition is certainly a potential limitation on growth of the industry in places where working waterfront facilities are strongly limited. There may be some opportunities to find another place to engage in your loading or unloading of gear or your product, but it may not be super easy to do that. A prohibition would probably apply to other activities as well. So there's another area here where there's common ground between fishermen, whether

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they're charter or commercial fishermen also using those ramps. We have some quahogers that use those ramps.

- Read Porter: And then finally, there's some advantages to thinking about permit or fee systems in that they provide a really clear authority for a grower to use the facility while also providing the state with some financial support to pay for ongoing maintenance of those boat ramps. We've seen before that our state agency notes that the condition of some of these places is poor in terms of potholes or the erosion that's going on. So there is a need to fund ongoing maintenance, and that can be a benefit to both states and to potentially to growers. But there aren't really any models that are appropriate to aquaculture that we can point to.
- Read Porter: That brings me to the end of the two case studies that I wanted to talk about today. I'm hopeful that by talking about these, that was sort of a little field trip through how some of the working waterfront operational limitations that we're seeing play out in Rhode Island and that may affect the shellfish aquaculture industry in the future. I think NOAA and other folks are really excited to see this industry doing well in Rhode Island and elsewhere, and we're going to have to deal with these growing pains the more that the industry continues to expand. And my hope is that by thinking about these issues, whether the ones I talked about or other operational issues in the future, if we think about them in advance, that we can avoid some of the reactionary kinds of problems that you might see if we don't think about them until the problem is really important and becomes political.
- Read Porter: So with that, Stephanie, maybe I'll turn it back to you. Oh, and if anybody wants any information from me, my contact information is here, and feel free to reach out.
- Stephanie Otts: Thank you so much, Read. So interesting to hear all of these things together as we've been going through the webinar series. If you have questions, please use the chat box and we can try to answer them here or, as Read mentioned, you can reach out to Read directly at the contact information on the slide and you can get your question addressed that way as well. So we'll just give folks a minute or two to see if there's any questions that are coming through the chat.
- Stephanie Otts: While that's happening, wanted to give an advertisement for the remaining two webinars in the series that are happening in the next two weeks at the same time each Wednesday. So next week on the 21st, we'll be featuring our case study out of California that looked at certification of shellfish growing waters in federal waters. And then our last series or last webinar at the end of the month will be about Virginia and their joint permitting program in Virginia. And then also a case study from one of the communities where they were able to resolve some of their land use conflicts.

- Stephanie Otts: Well, great. Well, it looks ...Read, I don't see any questions coming in, so I want to thank you again for presenting today and thanks, everyone, for being here with us. If you have colleagues that were not able to join us today, the recording will be available shortly for viewing and at the future. Thanks, everyone.
- Read Porter: Thanks. Please don't hesitate to reach out.