Alaska Aquaculture Opportunity Area Request For Information:

Transcripts from Public Listening Sessions

Listening Session 3/3, December. 11, 2023, 2:00 PM Alaska Standard Time

Moderator: Megan Ewald

Megan Ewald: Welcome everybody, let's kick it off. My name is Megan Ewald and I am the science communication lead for NOAA Fisheries, Office of Aquaculture, and welcome to this public listening session. For everybody's awareness, this webinar is being recorded.

As a follow-up to our June 1, 2023 announcement beginning the process to identify Aquaculture Opportunity Areas (AOAs) in Alaska state waters, in partnership with the State of Alaska, NOAA Fisheries requests data, comments, views, information, analysis, or suggestions from the public to support the identification of AOAs in Alaska state waters.

The public input provided in response to this Request For Information (RFI) will inform NOAA as it works with Federal, State, and Local agencies, the North Pacific Fishery Management Council, and in coordination with appropriate Tribal governments to identify AOAs. Comments provided today will be part of the administrative record.

As a reminder, this is an opportunity to provide oral comments--not a question and answer session. To provide a comment please "raise your hand" and the host will unmute you. Participants will have two minutes to provide verbal public comments before they will be muted.

To start us off today, we're going to go with around the room introductions.

I'm going to pass it off around the room with introductions, starting with Alicia, Bishop, Chris, and Danielle Blacklock.

Alicia Bishop: Hi, everyone I'm Alicia Bishop, and I serve as the Regional Aquaculture Coordinator for NOAA Fisheries in Alaska.

Chris Schillaci: Hi everybody, my name is Christopher, I work for the National Centers for Coastal Ocean Science, and the marine spatial coastal planning team.

Danielle Blacklock: Hello everyone, I'm Daniel Blacklock and I'm the Director of the Office of Aquaculture with the National Marine Fisheries Service.

Kate Dufault: Hi, everyone, I'm Kate Dufault. I work in the Alaska Department of Natural Resources, Aquatic Farm Leasing program.

Kristine Cherry: Hi, I'm Kristine Cherry and currently I'm the acting Deputy Director for NOAA Fisheries Office of Aquaculture.

Michelle Morris: Hi, Michelle Morris, I'm the Permit Coordinator for the Alaska Department of Fish and Game.

Alexis Horn: Hi, Alexis Horn and with NOAA Fisheries Office of Aquaculture.

Megan Ewald: Great! Thank you so much. Thank you to everybody for participating today. And I'm going to pass it off to Alicia Bishop to continue with the presentation. For anyone who may have joined late, please note that this webinar is being recorded. Thank you.

Alicia Bishop: Hi, everyone and thank you for joining us today to learn more about our Aquaculture Opportunity Area identification process, and the request for information that is currently open (next slide).

As I mentioned, my name is Alicia Bishop, and I serve as a Regional Aquaculture Coordinator for NOAA Fisheries in Alaska. Today, you're also going to hear from Chris who works at the National Centers of Coastal Ocean Science (next slide).

So Meg already touched on this, but a friendly reminder, the intent of today's meeting is to provide an overview of aquaculture opportunity areas in Alaska and to accept oral public comments on the request for information. Today's meeting is not set up as a question and answer session, nor will we be going into any specific aquaculture applications (next slide).

The NOAA Aquaculture Program is comprised of three line offices, NOAA Fisheries, (where I sit), the National Ocean Service with the National Centers of Coastal Ocean Science (where Chris sits), and the Oceanic and Atmospheric Research with the National Sea Grant program, and all of these organizations work together across NOAA to advance sustainable aquaculture in the U.S. through policy, outreach, science, grants, and extension services (next slide).

Aquaculture Opportunity Areas fit really nicely into our mission of expanding U.S. seafood. So as a compliment to our wild capture seafood, expanding domestic aquaculture is critical for economic and environmental resilience.

The resilient seafood sector, sustainable, domestic aquaculture, and AOAs all fit together to help us expand U.S. seafood (next slide).

So, what are we trying to achieve with Aquaculture Opportunity Area identification? The process was launched back in 2020 with the Executive Order promoting American seafood, competitiveness and economic growth, but the primary driver is the ability to take a science based approach to planning for aquaculture development.

So, we're looking for areas that can accommodate multiple projects and support seaweed and invertebrate aquaculture (such as shellfish, and sea cucumber). And we want to understand the public's interest and concerns about aquaculture development in Alaska state waters.

Ultimately, we hope that will incentivize investment in aquaculture development to address the increasing demand for seafood and promote American seafood, competitiveness, food, security and economic growth while maintaining our commitment to stewardship of marine resources (next slide).

So, you may be asking what is an Aquaculture Opportunity Area or AOA? This term means that we're looking for locations that show high potential for commercial aquaculture. And the process for identifying AOAs is a multi-year planning process with the intent to advance commercial aquaculture.

That is going to result in identifying locations that are environmentally, socially and economically suitable for aquaculture. And in order to get there, we're going to combine spatial analysis, scientific review and public input to help us identify those appropriate locations. We really want to minimize user conflict with other ocean user groups, such as military, shipping, fishing and subsistence activities, but it's not just about what areas to avoid. It's about finding the best areas that optimize the growth of the species that you want to farm, with the gear that you want to use, while maintaining the commitment to ocean stewardship (next slide).

So, what is the process? The AOA process is anticipated to take approximately four years. Those first two years are really focused on that siting analysis. And the next two years will be diving into the environmental review through the National Environmental Policy Act. So some of the products that you should expect from this process is the spatial analysis concluding in a report called an Atlas (that Chris will walk you through in more detail in just a minute), and the environmental review, which will conclude with our NEPA document.

The AOA identification process is really public driven, and public input is essential in the design and the location of AOAs (next slide).

So some key points to keep in mind, we haven't identified any AOAs in Alaska yet. We're at the beginning of this multi-year planning process and we're seeking to gather the best available information to help those farmers and managers make informed decisions about where to site.

This isn't a regulatory process, so NOAA doesn't have any new authorities and AOAs are not pre-permitted sites.

Aquatic farms can be sited both inside and outside AOAs, and you will still have to go through the same state and federal leasing and permitting processes. However, siting operations within AOAs helps front load those leasing and permitting processes for potential farms by identifying areas with minimal user conflict and by optimizing sites that help grow the kelp and shellfish you want to grow. In addition, we will complete an environmental analysis.

So in Alaska, all AOAs are going to be sited within state waters meaning we're looking to support multiple aquaculture sites for seaweed, shellfish, and other invertebrate species (such as sea cucumber and urchins). AOAs in Alaska will not include finfish farming, as it's prohibited within state waters, and identification doesn't occur until the very end of the AOA process. Again, AOAs do not restrict where farms can be sited (next slide).

It is important to keep in mind that this is a multi-year planning process. Here we've framed year one, starting with our kick-off in June. And from the point where Alaska was selected as the next area to explore AOA identification, we were trying to figure out how do we take the huge state of Alaska and narrow this down to some reasonably sized study areas? So through engagement and data collection, we gathered some feedback on some initial study area parameters. And from that, we were able to frame our initial study areas. Today is part of that effort where we are seeking public input on how we should consider framing the site suitability analysis in that Request for Information. So we took all of this input, we framed a Request for Information that went out in October, and then in November and December, we held three listening sessions. Today is our third and final listening session.

And here we are seeking input on the preliminary study areas, data and analysis relevant to identifying Aquaculture Opportunity Areas in Alaska. So how do these study areas look? Did we get it right? Are we missing something critical?

What do you consider when siting your farm? What are the different considerations depending on the species you want to grow and the gear that you want to use, and how do we optimize these?

So, once we have all of this information collected from the RFI, and we've finalized those steady areas, now NCCOS can really dive into data collection, identify where our data gaps are within the study areas and start their spatial modeling.

Our intent is to hold some spatial planning workshops in February and March, which is another opportunity to share some of this draft analysis. Then NCCOS will draft their Aquaculture Opportunity Area Atlas that's going to go out for peer review (next slide).

So, as I mentioned, the AOA identification process is very much public driven, and there's going to be multiple opportunities for public input throughout this multi-year planning process. One of the first, is the Request for Information that's currently open here.

We're looking to support the identification of AOAs in Alaska state waters, including the siting parameters that can be used to select steady areas for further analysis. Another opportunity will be the draft Atlas, and the Notice of Intent to prepare our NEPA analysis. Finally we'll be looking for public input on the Draft NEPA analysis (next slide).

The Request For Information was published in the Federal Register, October 19th, and it's open for sixty days. So, we will be collecting public comment through December 18th and this is seeking public comment on those draft study areas.

Chris is going to walk you through all of that in just a minute as well as taking data analysis and other information relevant to identifying AOAs in Alaska state waters. This can be an area where you can help us. Is there information from your agency or organization that helps identify the location of those other ocean user groups such as fishing, military, subsistence harvest locations, or do you have biological or oceanographic information such as density information of protected species, salinity, or temperature information? All of this helps us with that spatial analysis to determine appropriate locations for aquaculture.

And then over the next couple of months, we're really going to try to review the data we have and determine where our gaps are. Hopefully you can help us fill in those gaps.

We've set up two websites. The first link here is the NOAA Fisheries webpage, which walks you through how to provide electronic, written and oral comments as well as provide overview maps of study areas.

The second webpage by NCCOS provides all of those study area maps, including at community levels (next slide).

Now, I'll pass things off to Chris to walk through this spatial planning process.

Chris Schillaci: Thanks, Alicia and thank you everyone for joining us tonight. My name is Chris with the National Centers for Coastal Ocean Science. That's within the National Ocean Service and we're within the marine spatial ecology division (next slide).

So our program has completed over fifty spatial planning and siting analysis in the last five years. These are aquaculture specific analysis, but we also support planning for coastal and ocean uses, such as wind energy and a number of other offshore sectors. Some of the work is federally focused on Aquaculture Opportunity Area analysis for the Gulf of Mexico and Southern California but we've also worked in state waters, including state, designated aquaculture use areas, planning areas as well as planning for ports and harbors and farm specific projects (next slide).

We follow a certain process that engages the stakeholders to pull data and follow through and focus on a particular study area. For round one, we focused on site parameters to narrow the study areas, such as distance from port and maximum depth.

We anticipate following a similar process for Alaska state waters. We also kind of look at what the final product is going to be for the Atlas. Will this be the best use of areas for particular species/gear combinations? Will it be areas that meet certain economic development goals or just the largest area that's suitable for multiple types of aquaculture?

So, for Alaska, based on our analysis and discussion with a number of agencies, and folks who have done mariculture in Alaska, we identified two critical parameters to narrow down the entire state of Alaska to suitable study areas that we could further analyze.

Due to the specific parameters that we used for distance from ports, as a proxy for infrastructure, we looked at twenty-eight areas that were within a twenty-five mile radius from the top twenty-five coastal communities by population. We also looked at the ice cover. Ice does limit opportunities and since we're trying to find the best of the best places we decided to, for our proposed study areas, remove areas that experience maximum ice exposure. So we use the aggregate maximum ice between 2013 and 2021 to develop that data layer. So, as you can see the vast majority of areas that did not experience ice, and we're within proximity to population centers were in the Southeast, Southwest and Southcentral. That left sixteen communities (next slide).

As I mentioned Southeast, Southcentral and Southwest is where we're proposing to focus our analysis, and you can click on the QR code or links in the presentation that will be available to see focused and more zoomed in study maps (next slide).

So, once we've identified our study areas, we work to collect a geodatabase that includes information on military navigation, oceanographic, biological, industrial and geopolitical boundaries that are important in the planning process. So, currently we have over thirty-three million data layers that's in U.S. waters and we're working to develop a comprehensive geo database specifically for Alaska. So many of the questions focus on identifying data that can help with our suitability analysis (next slide).

Once we've identified the specific data layers that we're going to work from, we first want to identify those areas that are suitable for growth. So we first use the species/gear combination model. We would develop a list of candidate species, identify the specific cultivation techniques and for each species/gear combination. For a number of environmental parameters areas that are within the thresholds would be considered for further analysis (next slide).

For the areas that we're analyzing, generally the data layers that we use to develop a suitability model, consist of four sub-models and a constraints model. The constraints are going to be those areas that are not suitable for overlap with aquaculture. These are things like shipping lanes, sensors and buoys, sensitive habitats, inactive oil and gas wells. And other data, such as cultural and natural resources, aquaculture and fisheries areas, industry and navigation, and national security are all given scores for each cell within the model, or within the study area and a final suitability score is assigned to those cells. We use that to identify which cells are the most suitable within the study area.

As you can see on the left, you have red, these are areas that are considered constraints, and then a number of cells that are scored from green to red. Red being the lowest suitability green being the highest suitability. We take a look across the study area and find clusters of the highest suitability areas.That's where we're going to further focus our analysis.

As you can see on the left, this is a model where we selected areas where multiple types of aquaculture would be suitable so these areas could be suitable for both seaweed and shellfish. On the right hand is an example of where we're specifically focusing on various species/gear combinations and as you'll see, there are a number of species/gear combinations and example analysis on the right where there's overlap. And then we have areas where some are suitable and others are not. We've seen this type of analysis as

highly favorable in inshore waters where you have a high degree of diversity within depth and other environmental conditions (next slide).

For factors that don't necessarily fit within the suitability model, we include them, we characterize those considerations. So we'll have our suitability model and detailed information on all the information that goes into the suitability model as well as various types of information. That helps us understand the activities that occur within proximity to the options that are identified (next slide).

Our suitability model and the methodology as well as that information on characterization is all included in the final product, which is in this case, an Atlas that identifies Aquaculture Opportunities within Alaska state waters (next slide).

I think that's back to you Alicia.

Alicia Bishop: So this brings us back to the Request For Information. We've highlighted some of the questions that we raise in that. So the first question, are the parameters that we identified useful? So, Chris just walked you through those, we used population centers and ice. Is that useful?

Next question we consider is how big or small should AOAs be within study areas? So again, remember, we're narrowing down here. We're taking the whole state of Alaska, and we're narrowing it down to study areas. Now within those study areas, how big do you want AOAs to be? Should we connect size with economic development? There are a number of mariculture, economic development goals in Alaska, including those from the Mariculture Task Force, and the Alaska Mariculture Alliance.

Number three, are there specific locations that we should consider or avoid and then along those lines are there subsistence harvest locations, fishing areas, sacred sites, or others that we should avoid? So, we recognize that not all of these are going to have readily available information. There may be sensitive data so we request that you identify points of contact for us to reach out to, to have more in-depth conversations and help us fill in those data gaps.

Are there protected resources concerns, or overlap with our study areas? Are there health concerns such as harmful algal blooms or impaired waters that you want to flag within study areas? Is there additional research that we should be aware of such as all of the great work happening through the Exxon Valdez Oil Spill Trustee Council, or the Mariculture Cluster research projects?

And then, is there other data? So, this is kind of the spatial model that Chris was just talking about. Do you have information on oceanographic, natural resources, social, cultural, government boundaries, industry, military navigation, or recreation that can help us populate those sub-models?

Are there species/gear that you want to make sure we are analyzing? And then along those lines, do you have any research or other information on the biological and physical thresholds for those species/gear combinations to help us with siting? And then finally, is there anything else that you want to make sure we're aware of?

Please note that you need to submit those comments by December 18th (next slide).

So today's session is an opportunity to provide oral comments, but keep in mind you can also submit electronic or mail in comments the following ways. So be sure to check those out here. We've also linked those within our website with additional information (next slide).

And with that, I'll pass things back to Meg on how to provide oral comments today. Thank you.

Megan Ewald: Great. Thank you so much, Alicia and Chris. From here, we're going to open that up for public oral comments.

For those of you who are joining via the web, please raise your hand by clicking the hand in the lower right hand portion of your screen. For those of you joining via phone please press star three to raise your hand and star six to unmute.

We have our firsthand, Julie, I requested you to unmute, please go ahead.

Julie: Thank you all for your time today. I don't have super structured comments, but I do have some thoughts to offer and I, I'm joining you just as a citizen myself living in Wrangell, Alaska and having submitted a lease application to the State of Alaska for my kelp farm. Generally, I think you should, so I'm looking at the proposed study area maps on the NCCOS website and generally, I think that the distance from communities should be increased.

So, in other words, make the area larger, because you're going to go into all of the layers of information that then it's going to narrow what's possible so, I think we need to expand out from a beginning point and and I would like to say, for example, we have harvested kelp for delivery, we've harvested it near Wrangell and ran it in our slow boat, which takes about twenty hours to, for delivery to Juneau and it's still in good quality for human products. So, I

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think the area around communities can be expanded to something more like, 100 to 150 miles.

And another point I want to make is, I notice not all communities are included. I think the, you know, if there is, a population level, that's set as a threshold that it should be smaller to include some of the smaller communities that may want to utilize these opportunities as economic development for their communities in particular Alaska, native villages. We know, in some cases, they may not want the opportunity, but they may, and they shouldn't be excluded in the information that will come from this.

And then another couple of points, no matter what distance you use, a place like Kodiak or Prince William Sound, it's small enough, and there's enough variety of interests around those places. For instance, Kodiak Island, the entire island should be included in the analysis. Same thing with all the Prince William Sound should be included. Those are small enough areas that, you know, products can be transported across those spaces.

And then one more thing, in the Aleutians, you know, another criteria that you may use is where aquatic farm leases have been, applications have been submitted. And I do believe there's one in Adak. Maybe another community to add to the Aleutian islands, in the Southwest region.

And I think that's essentially my comments at this point. I appreciate you, you're working in this area and I know it's not an easy task in front of you. So, thank you very much and if you have any questions feel free.

Megan Ewald: Thank you very much for your comment, Julie. I'm going to go ahead and mute you.

As a reminder you can raise your hand by clicking the icon and lower right hand portion of your screen or by pressing star three.

Arnel, now I see that your hand is raised, I'm requesting you to unmute.

Arnel Orig: Hi, my name is Arnel Orig. I'm a graduate school student at the University of California, San Diego, and I wish to make this public comment regarding the following.

Well, on question one, I really think that the parameters are very extensive. And with regards to the species threshold, for the candidate species, I recommend, there could be some kind of risk assessment for the candidate species. Just bearing in mind that the potential research as disease outbreaks, or, you know, predation should be considered. A classic example would be the sea otters, which are the keystone species in Alaska and their

foraging behavior can have an economic impact if this is not considered for the model.

Number three, specific locations to avoid, I think, you know, water quality would be a problem, especially with oyster farming, um, excessive rainfall can be a factor. I did read something about the Rocky Bay oysters that were closed in 2016 and again in 2020. That would be a very good example where water quality could lead to another economic impact.

If the closures of these farms are extended, and also this would be connected with question number 6, which were that impure water quality could lead to harmful algae blooms and then, you know, then it would be a human health issue after that.

Lastly, number nine, I would like to add a comment to consider the sea cucumber as a candidate species, especially the giant red sea cucumber which is the only commercially harvested sea cucumber in Alaska as far as I know, I think based on my reading on this is that there's been a concern that had led the Alaska Department of Fish & Game to impose conservation management measures in Southeast Alaska. Requiring assessments prior to harvest, so taking the red sea cucumber as a candidate species would really help this, modeling.

And that's all I have. Thank you very much.

Megan Ewald:	Great, thank you for your comment. I'm going to go ahead and mute you. If there's anyone else that would like to comment. Please go ahead and raise your hand.
	I'm not currently seeing anybody in the queue. As a reminder, you can raise your hand by clicking the icon on the bottom right hand portion of your screen, or by pressing star three.
	I'm not currently seeing any hands in the queue. Please go ahead and raise your hand. If you'd like to leave a comment. If we don't see anybody else in the queue, we'll give it a couple of minutes and then wrap it up.
	Kelly, I see your raised hand, I'm going to go ahead and request you to unmute.
Kelly Monteleone:	Okay, a lot of noise around me. I just want to express concern that's been raised here at Sealaska Heritage Institute in Juneau, about the subsistence resources and the complex that this may raise and that we still don't have a good solution yet to figure out exactly where these locations are in these extensive study areas that you're looking at, looking forward to narrow down

study areas in the future, remembering that subsistence resources are very important to a lot of these smaller communities in Southeast Alaska. Thanks.

Megan Ewald: Thank you Kelly. Not seeing any raised hands if you'd like to provide an oral comment, please go ahead and raise your hand by clicking the icon and the bottom right d portion of your screen or by pressing star three, we're going to give it another 60 seconds. Please go ahead and raise your hand. If you'd like to leave a comment

Seeing no further comments, we're going to close the listening session. Thank you for all that attended today.

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