NWX-DOC CONFERENCING

Moderator: Cynthia Sandoval
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12:50 pm CT

Coordinator: Welcome and thank you for standing by. For the duration of today's conference all parties will be in listen only mode until the comments section of the conference, at that time you may press Star 1 to make a comment.

I would like to inform all parties that today's conference is being recorded if you have any objections you may disconnect at this time. I would now like to turn the conference over to Ms. (Kristy Beard). Thank you, you may begin.

(Kristy Beard): Thank you, welcome everyone and thank you for joining us for our fifth and final public listening session on our Request for Information about Aquaculture Opportunity Areas which you'll also hear us refer to as AOAs.

We're accepting comments until December 22. We have a slide presentation through the Webex platform that'll take about 30 minutes today. We're not using video and all audio is through the phone.

We'll give you instructions again at the end of the presentation for how callers can get in the queue to provide oral comments which will be limited to two

minutes each. We will have a transcript of the meeting as a record of your comment.

I'm (Kristy Beard), I'm a Policy Analyst with the NOAA Fisheries Office of Aquaculture in Silver Spring, Maryland. I'm the National Lead as we start the process of identifying aquaculture opportunity areas which I'll explain more later.

With me is Dr. (James Morris) from the NOAA National Ocean Services National Centers for Coastal Ocean Science. (James) leads a team of people who are working on planning and siting tools which go to use to provide the science that helps us identify aquaculture opportunity areas and he'll tell you more about that process.

So I'll spend about 15 minutes explaining AOAs and our process and (James) will spend about 15 minutes explaining the science piece. Then I'll summarize the questions we're asking in the request for information before we turn it over to you so that you can provide us your comments.

The purpose for this meeting today is to provide with you an introduction to aquaculture opportunity areas which are described by the May 7, 2020 Executive Order on Promoting American Seafood Competitiveness and Economic Growth or EO 13921.

We published a request for information on October 23 as an early part of the AOA process. In that request for information we asked questions related to what areas of the country we should consider for future AOAs and we also asked questions about areas within federal waters of the Gulf of Mexico and Southern California where we're focusing our early efforts to identify the first

two of ten AOAs. We're accepting oral public comments about those questions today.

We will not have a question and answer session. We have incorporated answers to the comment and questions we've been hearing into this presentation. We also won't be accepting comments about any specific permit application today.

So what is an aquaculture opportunity area and why are we identifying them. The executive order that I mentioned requires the secretary of commerce which NOAA falls under, to identify at least two geographic areas containing locations suitable for commercial aquaculture within one year of the date the executive order was signed.

Within two years of identifying each of those geographic areas we then need to complete a programmatic environmental impact statement or PEIS for each of those areas to assess the impact of siting aquaculture facilities there.

For each of the following four years we then need to identify two more geographic areas and complete a programmatic EIS within two years. These geographic areas will be referred to as aquaculture opportunity areas once the programmatic EIS is complete.

As we identify at least two geographic areas per year and spend the following two years completing a programmatic EIS for each of them we'll be busy with multiple overlapping projects over seven years. We're at the beginning in Year 1 now and by the end of the seven year process in May of 2027 we expect to have identified ten areas and completed a programmatic EIS for each one.

The three year process for each aquaculture opportunity area will result in the identification of areas that through a science and community-based approach we have determined to be environmentally, socially and economically suitable for aquaculture.

We expect the areas identified as AOAs to support multiple aquaculture farm sites for shellfish, macroalgae or finfish or a combination of those but all portions of the identified AOA may not be appropriate for aquaculture or for all types of aquaculture.

We're focusing on federal waters for these first two but in future years AOAs could be identified in federal or state waters or in a combination. If states express interest in aquaculture opportunity areas in state waters we'll take that into consideration as we compile the information we receive about what areas we should focus on for future AOAs.

In August we announced that had selected federal waters off of Southern California and the Gulf of Mexico for science-based evaluation to identify the first two aquaculture opportunity areas. The US Exclusive Economic Zone is over 3.4 million square nautical miles which is too much space for us to consider at one time to identify AOAs.

For the past several years the Gulf of Mexico and Southern California have been areas of interest for domestic aquaculture producers. This is because of ideal ocean conditions, access to markets and established shore-based infrastructure. There’s also a lot of existing spatial analysis data in the Gulf of Mexico and Southern California which makes them a good place for us to start.

And to be clear because we've heard a lot of confusion all of Southern California and the Gulf of Mexico are not aquaculture opportunity areas. They're a starting point for NOAA to focus our resources. We'll use a combination of spatial analysis, scientific review and public input to find more specific locations within those areas that have the potential to support multiple commercial aquaculture operations.

So focusing just on this first year and our process to identify the first two geographic areas we announced in August that we're starting in federal waters off of Southern California and the Gulf of Mexico to identify the first two AOAs.

The National Centers for Coastal Ocean Science or NCCOS have been collecting data to use in their siting analysis to find areas that may support sustainable aquaculture development. In doing so they will account for important environmental, economic, social and cultural considerations.

We published the request for information in October which is what brings us here today. Moving forward NCCOS will draft and aquaculture opportunity atlas based on the results of their siting analysis. We'll combine those results with the public input we receive through this request for information and with input from other federal agencies, fishery management councils, marine fisheries commissions, states and tribes to develop preliminary location alternatives.

In May of 2021 we expect to announce those preliminary alternatives which are the geographic areas required by the executive order and publish a notice of intent to develop two programmatic EIS's and consider those preliminary alternatives in more depth.

There are three points of public input for each aquaculture opportunity area. These are the request for information which is where we are now for the first two AOAs, the notice of intent to prepare a programmatic EIS and the draft programmatic EIS.

We use the information that we receive from this request for information in two different ways, the first is to help us determine what regions of the country we should consider as we go through the process to identify two more geographic areas per year. The second is to help us identify specific locations within federal waters of the Gulf of Mexico and Southern California which we'll consider in more depth through the programmatic EIS process.

Once we've identified those specific locations we'll develop preliminary alternatives and publish a notice of intent to prepare a programmatic EIS for each the Gulf of Mexico and Southern California and we'll solicit public comment. We'll consider those comments as we draft the two programmatic EIS's and then there will be a third opportunity for public input when we publish each draft EIS.

We expect that once we've determined what two regions of the country to focus on for AOAs 3 and 4 we'll publish a new request for information similar to the one that's out right now. We'll use the public input we receive from that to help us identify specific locations within those regions and to help determine what regions of the country we should consider for additional AOAs in the future.

The entire process to identify aquaculture opportunity areas and complete a programmatic EIS for each one is about planning and finding spaces that may be appropriate for multiple aquaculture operations. It's not a regulatory process and it doesn't include an authorization or a permit from NOAA

Fisheries for aquaculture operations. Proposals for specific operations within an AOA would need to be submitted separately to the appropriate permitting agencies.

Aquaculture operations are not required to be within an aquaculture opportunity area. Projects can still be proposed within or outside of AOAs. And the identification of AOAs would not prohibit other legal activities within that identified AOA.

Once aquaculture operations are proposed within an aquaculture opportunity area the federal and state permitting and authorization requirements are still the same as they are anywhere else. NOAA will coordinate with the federal permitting agencies like the Army Corps of Engineers and the Environmental Protection Agency throughout the AOA process. Each programmatic EIS will include information to inform future permitting and environmental consultations for those aquaculture operations.

The potential impacts to protected species and habitats will be considered at multiple points in the process. This will create permitting efficiencies by reducing the need for duplicative efforts by federal and state agencies but it won't replace the need for farms to apply for appropriate permits. There may also still be additional NEPA analysis that's required during the permitting process.

One of the benefits to aquaculture opportunity areas is that aquaculture operations proposed within them would have the scientific analysis and public engagements that went into identifying those locations and completing the programmatic EIS available for the permitting process.

Aquaculture operations that are proposed outside of AOAs wouldn't have that information readily available. So proposing aquaculture operations outside of AOAs may result in additional time and effort on the part of the applicant.

But this process isn't just about creating permitting efficiencies, it's a proactive approach that combines spatial analysis, scientific review and public input. Using that we can consider important environmental, economic, social and cultural resources and identify areas that may support sustainable aquaculture development. That lets us maximize the compatibility of AOAs with other ocean uses while maintaining our commitment to ocean stewardship.

So some of the comment sessions that we've heard and the key takeaways that we want you to hear today is the selection of waters of the Gulf of Mexico and Southern California does not mean that those entire regions are aquaculture opportunity areas. AOAs are about spatial analysis and environmental planning, they're not regulatory. NMFS isn't permitting or authorizing aquaculture through AOAs.

The federal and state permitting and authorization requirements are the same within AOAs as they are anywhere else and the identification of AOAs would not prohibit other legal activities from occurring within AOAs. AOAs are also not related to any specific permit application.

So with that I'll turn it over to Dr. (James Morris) with the National Centers for Coastal Ocean Sciences and he can explain the spatial analysis process to you.

Dr. (James Morris): Okay good morning, good afternoon everyone it's a pleasure to be with you today and to share some information about the spatial planning process for AOA.

I want to share first that I work in the National Ocean Service and in the National Ocean Service we do a lot of spatial planning science, we do science to support coastal management, we do a lot of oceanography and those kinds of things. So we have worked over the last decade or so to build infrastructure to support pioneering ocean industries like aquaculture as well as existing industries to help make good decisions about sustainable development.

And we work particularly with aquaculture across four different areas, planning, siting, tools, and environmental science. We have worked over the years to provide some planning and siting science for a number of aquaculture projects around the nation. This includes working with the aquaculture opportunity areas work which is directed by this executive order that we're talking about today. We - I've also worked with states to think about aquaculture in state waters as in state designated aquaculture use areas.

We've conducted over 50 spatial planning analyses for siting as well as for planning to support industry as well as ports and harbors to support planning environments for state agencies and industries around the nation. This has given us a lot of experience and lessons learned as we have worked to identify the best kind of spatial planning approaches that can help inform sustainable industry development.

We - I want to emphasize to you that our primary customer is the coastal manager. We have worked and sat knee to knee with the regulatory working groups that are working to evaluate all of these different coastal development projects including aquaculture to better understand what their concerns are

and the management, the portfolio of management questions and concerns that range from across various topics of water quality and habitat interaction, protected species interaction, conflict resolution and forecasting and those kind of things.

We work with the Department of Defense, the US Army Corps of Engineers, the EPA, the Department of Energy, Fish and Wildlife Service and state agencies as well on a routine basis to help advise on issues relating to spatial planning, environmental modeling, science advice and engineering challenges and review as well.

We also maintain and build a comprehensive tools and technology toolbox that could help us make good decisions specifically around aquaculture. We've worked over the last decade to develop immense data resources. We have worked with our partners in other parts of NOAA such as the Office for Coastal Management and the Bureau of Oceans and Energy Management to develop smart, intelligent applications such as Ocean Report that is possible to analyze parts of the coastal ocean in one second and provide an enormous amount of coastal intelligence for, to inform the conversations during the early design phases all the way through operation.

We've also worked to develop mappers and models and are currently working to bring virtual reality simulation technology into understanding protected species interaction. And then environmental models that work at ecosystem and water - and across water quality collection to help us understand, you know, not only if aquaculture will have an impact and how to mitigate for that impact or understand the interaction but also to be able to quantify it and to be able to forecast questions around sustainability and to be able to understand interactions with other industries and the environment. We work to bring all

that science advice to the table during the permitting process to inform good decision making when it comes to aquaculture.

I want to talk specifically about data for a moment. We work and live in a now in a big data world. Thanks to the advancements in computing power and data collection we're now able to analyze data on our smartphones that we've really not even foreseeable and in even in the recent past.

And this is just an amazing technology and we've worked to bring big data analytics through geospatial analyses to really understand where in the world a new industry could go such as aquaculture. And this today we're working with around 30 million data layers for the US coastal ocean and analyzing those layers and working to bring that spatial intelligence to thinking about industries such as aquaculture.

So I want to walk you through the spatial planning process that we are engaged in and the first step is to ask, you know, what is the project requirement, you know, what are the boundaries, what are the type of aquaculture, what are the environmental requirements for that specific type of industry. And what are the maximum distances to and from the port that - and shore-based infrastructure.

We then take that information and we've developed a study area and that is an area that is delineated through geospatial analysis that meets the requirements of the project's scope and need. We then overlay over top of that study area a grid and that grid allows us to subdivide the study area.

So we can look for grid cells that are of varying levels of compatibility, in this case with aquaculture development. We typically will model at the 10 or, you know, 50 or 100 acre grid cell size so we can get down to essentially precision

spatial modeling to be able to understand, you know, various ocean neighborhood characteristics.

Once we build that grid and we understand our study area we then go through an intense process of data mining. We'll mine our data resources, we will work with data stakeholders, we'll work with, you know, all kinds of governments and private industry, environmental organizations and others and we'll ask questions. You know, what data should we be including in this spatial planning process and what are the concerns and challenges associated with those data.

We will build our data catalog, our geodatabase for this particular project. We will then begin mapping some of that data so that we can better understand how that data interacts with the study area.

So for example here is a project off the coast of California that we've done some spatial planning for and you'll see here on the map we've been able to map, you know, where exactly the oil and gas platforms exists and the pipelines and the leak areas and those kind of things. And what we're doing at this point is we're really getting a handle on the ocean neighborhood.

The next step is that we will build a model and this is a geospatial model. The goal here is to identify in a relative sense what are the highest areas that have the most compatibility and the areas that have the lowest compatibility.

We're really looking to be able to identify with certainty those areas that have no compatibility for additional development such as areas where there already exists industries, you know, intense commercial fishing or recreational fishing. Also areas that have, like, pipelines and oil rigs or platforms. Areas that have their important ferry routes or important shipping lane areas.

You know, we want to make sure that we avoid conflict, you know, where possible and to do that we're able to take all this information together into one spatial model to be able to - and look at the relative suitability or compatibility, you know, within the study area.

We will go through a scoring process for areas that have the lowest compatibility will be scored as a zero compatibility. Areas that have uncertain compatibility or may not be compatible will be a score in a 0.5 and everything else gets a score of 1. And then we're able to calculate a mean score for each grid cell, each one of those ten acre grid cells across the whole entire study area and that will allow us to give us a relative sense about where the greatest opportunities exists.

Now many of these models include, can include as many as 100 or 200 data layers that exists for any specific study area. So the power of GIS in this case can sort of unlock the ability to be able to look at the - in a relative sense, you know, what's happening within these various neighborhoods, you know, at the 10 acre or 50 acre level and be able to make informed decisions about conflict and about environmental interactions and also about opportunities that exists within those ocean neighborhoods.

Our next step is to use more precision siting approaches where we will then use a cluster analysis to pull out the grid cells that have just the highest scoring levels and we will then look at precision placement of the project within those grid cells that have the highest scores. Those become alternatives.

We usually during a spatial planning analysis will stop at that level of providing alternatives. We then hand those alternatives off to the decision

maker. They evaluate this scientific-based information. They bring it into their decision making process whatever it may be. And then they will move forward with the decision process.

So our goal in this project with this AOA planning exercise is to identify a number of alternative aquaculture opportunity areas based on geospatial analysis and concrete data that can be used to inform an environmental impact statement on those alternatives and ultimately select from those alternatives the most suitable areas.

We're able to do that through comparing these alternatives. We do that through a characterization process which allows us to compare all the alternatives that were identified through geospatial analysis.

We ultimately will publish an atlas. This atlas will be publicly available. It'll be peer reviewed through an influential science review process conducted by our agency and conducted independently. So not only will the data be reviewed but also the modeling method as well as an interpretation of the modeling as well. We hope that to release the atlases for the two - these two AOA spatial analysis, we hope to release those atlases in the spring or early summer.

So just to show you where we're at today we have conducted some initial modeling looking at identifying the study areas for Southern California and the Gulf of Mexico. We met with industry and they've informed us that their needs were to farm areas that were between 10 and 150 meters and no more than 25 nautical miles from shore.

So those areas- we mapped where those areas exists in the coastal ocean from Point Conception, San Diego. And we have identified four study areas, Santa

Barbara, Santa Monica, Long Beach and San Diego are the nearest towns for those areas. But you see that the study areas are in federal waters only and they encompass, you know, a larger area off Santa Barbara with similar areas of Santa Monica, Long Beach and San Diego.

Similarly in the Gulf of Mexico the depths of industry are looking before between 50 and 150 meters so deeper areas. And we're looking across the entire Gulf of Mexico.

And while this we're able to develop study areas that are four study areas, the Western Gulf of Mexico, Central, Eastern and Southeastern. And we will be building suitability models for each one of those study areas and looking for compatibility amongst all those study areas and again publishing that in an atlas.

So thank you (Kristy) for the opportunity to share a bit about the spatial planning process and now I'll turn the time back over to you.

(Kristy Beard): Thanks (James). Now I'm going to run through the questions that we're asking in the request for information.

Just as a reminder, the comments we receive through this request for information will help us in two different ways, in determining what regions of the country we should consider for future aquaculture opportunity areas and to identify specific locations within federal waters of the Gulf of Mexico and Southern California. We'll then consider those areas in more depth through the programmatic EIS process resulting in the first two aquaculture opportunity areas.

I'm summarizing these questions here for brevity. If you'd like to see the full list of questions or you want to provide more in depth written comments you can find our request for information at www.regulations.gov by searching for either the phrase 'aquaculture opportunity areas' or for the identifier which is NOAA-NMFS-2020-0118. And you can also find all of this information on our website.

I'll run through the national questions first because that's the focus of our listening session and then I'll go through the questions specific to the Gulf of Mexico and Southern California. If you're following along with the questions in the request for information those national questions start with Number 7.

So first we're asking what region should we consider for future AOAs. Nationally within those regions are there specific locations we should consider? What types of resource use conflicts should we consider as we identify future AOAs and is there ongoing environmental, economic or social science research that would assist us in the identification and implementation for future AOAs?

We're also looking for information on siting requirements for aquaculture operations to inform future spatial analysis. Things like the minimum and maximum depth needed to operate aquaculture farms or the minimum and maximum current conditions that could impact farm operations. Things like wave climate that could impact farm operation and proximity to shore. If states express interest should we consider state waters for future aquaculture opportunity areas?

And then specific to the Gulf of Mexico and Southern California for these first two AOAs (James) told you that in the Gulf of Mexico we're looking at areas within the depth range of 50 to 150 meters with no specified maximum

distance from shore and in Southern California within the depth range of 10 to 150 meters with a maximum distance of 25 nautical miles from shore. So within those areas are there types of aquaculture that may or may not be supported or are there other water depth and maximum distances from shore that we should consider?

Within federal waters of the Gulf of Mexico or Southern California are there specific locations or habitats that we should consider or that we should avoid for AOAs where the presence of aquaculture gear may overlap with areas used by protected species like large whales, sea turtles or dolphins or that should be avoided because of concerns about harmful algal blooms or impaired water quality? And again specific to the Gulf and Southern California is there ongoing environmental, economic or social science research that would help us?

We're also looking for data layers, information that might be useful in the AOA planning process, particularly data that may not be easily publicly available. So things like wave climate and currents or natural resources, industry information.

So with that we want to hear from you. A few reminders before we begin, you can press Star 1 to join the queue to provide a comment. There's a two-minute limit per comment. I will show you a warning slide when 15 seconds remain, I'll pop up this slide for you. And then after two minutes the operator will mute you.

To maximize the time we have to collect your comments we will not be responding to comments today. We're only accepting comments on the questions that we asked in the request for information on AOAs. And if

there's time once everyone has provided their comments you're welcome to rejoin the queue if there's more that you want to say.

If for any reason you can't see the slides and won't see that warning slide you can go ahead and let me know when you introduce yourself and I can give you a verbal notification. And with that (Tara) if we can start the comments that would be great.

(Tara) do we have anyone in the queue to provide comments?

Coordinator: Yes our first question comes from - our first comment comes from (James Fletcher), your line's open. (James Fletcher) please check the mute button on your phone.

(James Fletcher): Can you hear me?

Coordinator: Yes.

(James Fletcher): Is this under the Magnuson Act? Is NOAA - is this operating under the Magnuson Act, that's one. And if it is the Magnuson Act says you shall not discriminate amongst the fishermen of the several states.

So by having this starting only in California and the Gulf of Mexico those of us that are on the East Coast that want to do aquaculture offshore will be prohibited for a number of years. And if it is under Magnuson then it should be open to all fishermen.

The second part of this is Japan, Norway, Chile, some of the other countries have implemented aquaculture in the - what would be their EEZ. Why are we not following what they did rather than rebuilding the wheel? Thank you.

(Kristy Beard): Thank you.

Coordinator: As a reminder if you would like to make a comment please press Star 1 and record your name. The next comment comes from (Bill Dewey), your line is open.

(Bill Dewey): Yes thank you and thanks (Kristy) and (James) for your presentations it was really helpful.

So I'm with Taylor Shellfish Farms in Washington State. We have extensive clam, oyster, muscle and geoduck operations here and a number of operations in British Columbia as well because of permitting challenges here in the United States drove us up there 15 to 20 years ago. So excited to see NOAA taking this proactive effort to try to expand domestic aquaculture production, appreciate those efforts.

I support the idea of trying to establish AOAs in state waters as well as federal waters. Not really a lot of opportunity in EEZ waters off of Washington State but I think there would be interest. You know, we have a Washington State shellfish initiative here that's implementing a national shellfish initiative and more recently a local Hood Canal shellfish initiative that is calling amongst other things for the growth of shellfish aquacultures. So these siting tools could be a real asset and as well as the environmental review so.

A question I wanted to pose was aside from the assistance, siting assistance spatial information in the environmental review, will there be any effort by NOAA to facilitate permitting of the projects in the AOAs? So not circumventing any of the regulations but helping to coordinate and facilitate

permitting so it might be easier, yes, in those areas are more streamlined in those areas so. And that's the end of my comments thank you.

Coordinator: As a reminder if you would like to make a comment please press Star 1 and record your name. The next comment comes from (Ellen Peel), your line is open.

(Ellen Peel): Hi my apology I came in five minutes late because I was on another conference call and I apologize. You might have covered this, my question is once areas are identified how are the species -- I'm particularly interested in finfish -- how are the species identified? Thank you.

And have they been identified for Southern California and the Gulf of Mexico? Can you hear me?

(Kristy Beard): Just a quick reminder that we are not having a question and answer session today. We're only accepting comments on our request for information thank you.

(Ellen Peel): Okay.

Coordinator: If you wish to make a comment please press Star 1 and record your name. We show no further comments at this time.

(Kristy Beard): Thanks (Tara). We can give people a couple minutes to gather their thoughts and queue up if they have additional comments.

And in the meantime a couple of reminders, the public comment period ends on December 22. And if you'd like to provide written comments you can go to www.regulations.gov, search for the phrase 'aquaculture opportunity areas' or

for the identifier number on the screen and click on 'comment now' and then you can complete the required fields and either enter or attach your comments.

We also have a webpage dedicated to aquaculture opportunity areas where we have some frequently asked questions, we have links to the request for information and we have a copy of the presentation that we gave today and at the other listening sessions. So if you're looking for more information you can go to www.fisheries.NOAA.gov aquaculture opportunity areas.

Coordinator: Again, if you'd like to make a comment please press Star 1 and record your name.

(Kristy Beard): (Tara) we can give it about two more minutes and then if no one joins the queue to provide comments we can end the session for today.

Coordinator: Very good.

(Kristy Beard): Thanks.

Coordinator: Please press Star 1 to make a comment.

(Kristy Beard): Thank you all so much for joining us today. As a reminder you have until December 22 to provide your written comments and you can find more information on our website. And with that if no one has joined the queue I think we can end this for today (Tara) thank you.

Coordinator: Thank you, that does conclude today's conference thank you for participating. You may disconnect at this time. Speakers please allow a moment of silence and stand by for your post conference.

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