

BEFORE THE ENVIRONMENTAL APPEALS BOARD  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C.

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ORAL ARGUMENTS

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IN THE MATTER OF:	:
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OCEAN ERA, INC. - Velella	: NPDES
Epsilon Facility	: Appeal Nos.
	: 20-08
NPDES Permit No. FLOA00001	: 20-09
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Thursday,  
December 9, 2021

Video Teleconference

The above-entitled matter came on for  
hearing, pursuant to notice, at 1:30 p.m. EST

BEFORE:

THE HONORABLE AARON P. AVILA  
Environmental Appeals Judge

THE HONORABLE MARY KAY LYNCH  
Environmental Appeals Judge

THE HONORABLE KATHIE A. STEIN  
Environmental Appeals Judge

**APPEARANCES:****On Behalf of Friends of Animals:**

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**ALSO PRESENT:**

EMILIO CORTES, Clerk of the Board  
SUSAN GARDINIER KIMBALL, Senior Counsel, EAB  
AMMIE ROSEMAN-ORR, Senior Counsel, EAB  
AMANDA URBAN, Senior Counsel, EAB

1 P-R-O-C-E-E-D-I-N-G-S

2 1:31 p.m.

3 MR. CORTES: May I have your attention  
4 please. No recordings of these proceedings are  
5 allowed. A transcript will be prepared by the  
6 court reporter, and will be posted on the docket  
7 for this matter on the Environmental Appeals  
8 Board website. The Environmental Appeals Board  
9 of the United States Environmental Protection  
10 Agency is now in session. Today, we will hear  
11 oral arguments in the matter of Ocean Era, Inc.,  
12 Velella Epsilon Facility, permit number  
13 FLOA00001.

14 NPDES appeal numbers 20-08, and 20-09.  
15 The honorable Judges Kathie A. Stein, Mary Kay  
16 Lynch, and Aaron P. Avila now presiding.

17 JUDGE STEIN: Good afternoon everyone.  
18 The Environmental Appeals Board is hearing oral  
19 arguments today on two petitions, filed by  
20 collectively, eight citizens groups. The first  
21 filed by Friends of the Animals, and the second  
22 filed by the Center for Food Safety, Friends of

1 the Earth, Recirculating Farms, Tampa Bay  
2 Waterkeeper, Suncoast Waterkeeper, Healthy Gulf,  
3 Sierra Club Florida, the Center for Biological  
4 Diversity, and Food and Water Watch with respect  
5 to an NPDES permit that EPA Region 4 issued to  
6 Ocean Era for the Velella Epsilon Facility, which  
7 has been docketed, as mentioned earlier.

8 The Board has administratively  
9 consolidated these two appeals for purposes of  
10 oral arguments, and decision. Each case involves  
11 an NPDES, or national pollutant discharge  
12 elimination system water permit for a pilot scale  
13 off shore aquaculture facility, or fish farm to  
14 be installed in the Gulf of Mexico about 45 miles  
15 off the coast of Florida, off the coast of  
16 Sarasota in the ocean, in the Gulf of Mexico. The  
17 argument will proceed as follows.

18 First we will hear from petitioners  
19 Friends of Animals. Secondly, we will hear from  
20 the group represented by the counsel for the  
21 Center for Food Safety, and the other  
22 petitioners. Thirdly we will hear from Region 4,

1 the permit issuer. And finally, if petitioners  
2 opt to reserve time for rebuttal, we will hear  
3 that rebuttal. Before we go further, I would  
4 really like to ask for everybody's cooperation,  
5 as we are hearing this argument in a virtual  
6 environment.

7 It's critically important that the  
8 court reporter be able to hear what people are  
9 saying, and for the court reporter to be able to  
10 accurately capture the argument. So, if you have  
11 any difficulties with your audio, please tell us  
12 immediately, and we will allow for adjustments to  
13 be made. This is a very important case, and the  
14 Board really appreciates the time, and effort the  
15 parties have spent in preparing their petitions,  
16 their briefs, and preparing for this oral  
17 argument.

18 We're also very pleased that so many  
19 people have been able to join us remotely to  
20 observe the oral argument, and to make these  
21 proceedings transparent. We do not allow  
22 recordings of any kind, but there will be a

1 transcript that the court reporter will  
2 transcribe that will be posted to our website at  
3 some point after the oral argument. We assure  
4 you that the Judges have read all of the briefs,  
5 and all of the submissions, and are thoroughly  
6 familiar with the record.

7 We are therefore likely to ask a large  
8 number of questions about your positions that  
9 will assist in our deliberations. We ask that  
10 you think of this as an opportunity to have a  
11 conversation with the Board about this case. As  
12 we want to be sure we understand your positions  
13 thoroughly, and probe your positions, and the  
14 record support that may exist for them.

15 Please do not assume that the Judges  
16 have made any decisions on the facts, or the law  
17 of this case. The purpose of the oral argument  
18 is to be sure that we fully understand your  
19 position. And simply because we may ask a  
20 difficult question does not mean that we have  
21 made up our minds on any issues in the case for  
22 one party, or another. I would now like to call

1 on counsel for each party to briefly introduce  
2 themselves, and who they represent.

3 I would ask that they begin with  
4 Friends of the Animals, followed by the Center  
5 for Food Safety, followed by Region 4. When you  
6 are speaking, please turn on your mic, and your  
7 camera, and when you finish speaking, you may --  
8 I respectfully request that you turn off your  
9 camera, and your mic. And we'll start with the  
10 Center for Animals.

11 MS. BEST: Thank you your honor, this  
12 is Jennifer Best, on behalf petitioner Friends of  
13 Animals.

14 JUDGE STEIN: Thank you. Can you  
15 speak up a little more when you're presenting?  
16 Because I want to be sure the court reporter can  
17 accurately capture what you're saying.

18 MS. BEST: Yes your honor, does that  
19 sound better?

20 JUDGE STEIN: Yes, it does, thank you.

21 MS. BEST: Thank you.

22 JUDGE STEIN: Counsel for the Center

1 for Food Safety?

2 MS. STEVENSON: Good morning your  
3 honor. I am Meredith Stevenson, counsel for the  
4 Center for Food Safety, Friends of the Earth,  
5 Recirculating Farms, Tampa Bay Waterkeeper, Sun  
6 Coast Waterkeeper, Healthy Gulf, Sierra Club  
7 Florida, and the Center for Biological Diversity.

8 JUDGE STEIN: Thank you. Region 4?

9 MR. SCHWARTZ: Good afternoon your  
10 honor. My name is Paul Schwartz, and I represent  
11 EPA Region 4 in this matter.

12 JUDGE STEIN: Thank you. And can the  
13 clerk clarify whether anyone is reserving time  
14 for rebuttal?

15 MR. CORTES: Yes, good afternoon your  
16 honor, the Friends of Animals has requested seven  
17 minutes for a rebuttal, and the petitioner for  
18 the Center for Food Safety has requested ten  
19 minutes for rebuttal. Thank you.

20 JUDGE STEIN: Thank you. With that,  
21 we will begin, and let's begin with Ms. Best,  
22 counsel for Friends of Animals.



1 MS. BEST: Thank you your honor. I  
2 appreciate you taking the time to review the  
3 permitting decision of this industrial polluting  
4 facility. This facility would be the first of  
5 its kind in federal waters, starting an offshore  
6 aquaculture industry that Congress has never  
7 authorized, during a time when other countries  
8 are turning away from offshore aquaculture. The  
9 proposed facility would be located in the Gulf of  
10 Mexico, which is home to many unique species,  
11 including one of the most endangered whale  
12 species in the world.

13 And the proposed facility would dump  
14 harmful pollutants directly into the ocean.  
15 Pollutants that are likely to contribute to, or  
16 exacerbate harmful algal blooms, and also  
17 potentially release fish pathogens, and  
18 antibiotics directly into the ocean. This causes  
19 a serious threat to the water quality, marine  
20 life, and human life. However --

21 JUDGE STEIN: Can I ask you a  
22 question?

1 MS. BEST: Yes.

2 JUDGE STEIN: So, if the region  
3 considered the ocean discharge criteria over the  
4 course of the permit, have they complied with the  
5 regulation even if that consideration was not  
6 neatly organized in the ocean discharge  
7 evaluation, why, or why not?

8 MS. BEST: Well your honor, there  
9 needs to be a sufficient basis for this Board,  
10 and for courts to determine that they have  
11 considered all those factors, because that's a  
12 clear requirement of the Clean Water Act, and of  
13 the federal regulations. Another thing that I  
14 would like to point out that's emphasized in the  
15 Clean Water Act, and in the regulation, is that  
16 if there's not sufficient information to make a  
17 determination on any of those criteria, then the  
18 EPA cannot issue the permit here.

19 JUDGE STEIN: But as I understand this  
20 permit, EPA determined that it had sufficient  
21 information to make its decision, and what I was  
22 trying to get at with my prior question was the

1 region did a draft ocean discharge criteria  
2 evaluation, and then it finalized that after the  
3 public comment period. Can the Board consider  
4 the information that is in the response to  
5 comments, but not in the ocean discharge  
6 evaluation?

7 And must we look only to what is in  
8 the ocean discharge criteria evaluation to  
9 determine whether they have satisfied their  
10 regulatory obligations?

11 MS. BEST: I think the Board should  
12 look only to the ocean discharge criteria  
13 evaluation, because the agency had to make this  
14 determination before it issued the permits.  
15 However, I do want to expand that even if the  
16 Board were to look at the response to comments,  
17 and to other information, it's still clear that  
18 the region committed several errors, and didn't  
19 follow the requirements of the law.

20 And one issue that I would like to  
21 point out that really illustrates this point is  
22 the analysis of the proposed facility on harmful

1     algal blooms. Harmful algal blooms are something  
2     that threatens human health, marine life,  
3     recreation, and is a big concern. The relevance  
4     to some of the ocean discharge criteria  
5     evaluation, mainly the factor six, which would be  
6     the potential impact on human health through  
7     direct and indirect pathways.

8             And also particularly factor three,  
9     which would be the composition, vulnerability of  
10    the biological communities. Here, EPA  
11    acknowledges several different documents,  
12    including the ocean discharge criteria evaluation  
13    that harmful algal blooms are on the rise in  
14    frequency, duration, and intensity in the Gulf.  
15    They explained in the EA, some of the harmful  
16    impacts of these that Florida had to declare a  
17    state of emergency in six counties because of  
18    harmful algal blooms.

19            And that harmful algal blooms are  
20    exacerbated by nitrogen, and phosphorous, which  
21    are the two main pollutants that would be  
22    discharged because of this facility, through fish

1 fecal matter, and through fish food. The goal  
2 would be up to over 20000 pounds of fish food  
3 dumped into the facility every month. So, it's a  
4 large increase of these nutrients which  
5 contribute to harmful algal blooms. Now --

6 JUDGE STEIN: Counsel, can I ask you  
7 a question?

8 MS. BEST: Yes.

9 JUDGE STEIN: So, the region analyzed  
10 algal blooms in relation to this particular  
11 facility, and the statements that you recounted  
12 are rather broad, general statements. Where in  
13 the record can I find your rebuttal to the  
14 specific modeling, and analysis that the region  
15 did with respect to algal blooms in this  
16 particular facility?

17 MS. BEST: So, one problem with the  
18 legal standard that EPA used, and you can find  
19 this in the response to comments at 25, there's  
20 not much analysis of it in the actual ocean  
21 discharge criteria evaluation. But if you look  
22 at the response to comments, they say there's not

1 enough quantitative evidence to conclude that the  
2 proposed fish farm is directly linked to red  
3 tide, or harmful algal blooms.

4 Well, that indication that there's not  
5 enough evidence indicates that there's not  
6 sufficient information to make a finding that  
7 this will not cause unreasonable degradation.  
8 And in particular, in the response to comments,  
9 the EPA talks about statements made in the draft  
10 document. The draft document said there's no  
11 good scientific evidence to suggest that  
12 macronutrients and micronutrients from fish farms  
13 was related to the occurrence of red tide.

14 And they cited an expert in this area.  
15 In the comments, and this is in the response to  
16 comments around 25, they noted that that expert  
17 said they did not agree with EPA's statement, and  
18 that expert found that there's extensive  
19 international literature on the stimulation,  
20 growth, and harmful of effects of what are called  
21 harmful algal blooms. And all are stimulated by  
22 an increased nutrient load.

1           EPA's response to comments was that  
2           the initial statement could have been misleading,  
3           that there's no good scientific evidence of this,  
4           and so they changed their statement in the ocean  
5           discharge criteria evaluation at page 35 to say  
6           there's not enough scientific evidence available.  
7           And again, this conclusion that there's not  
8           enough scientific evidence available demonstrates  
9           that EPA couldn't have made -- that there's no  
10          rational connection between their finding that  
11          there's no reasonable degradation here.

12           The regulations specifically lay out  
13          three different possibilities for EPA in this  
14          situation. One, which they claim, is that there  
15          would be no unreasonable degradation. Two, that  
16          there will be an unreasonable degradation, in  
17          which case no permit can be issued. And then the  
18          regulations contemplate a third factor, if  
19          there's insufficient information.

20           Based on EPA's own statement, giving  
21          them the benefit of the doubt, there's not  
22          sufficient information here to make a conclusion

1 about harmful algal blooms --

2 JUDGE STEIN: Weren't those -- excuse  
3 me, go ahead.

4 JUDGE AVILA: Isn't the insufficient  
5 information regulation, doesn't that go to  
6 insufficient information as to making a  
7 determination as to whether there'll be an  
8 unreasonable degradation? Not as to each  
9 individual factor that might be considered in the  
10 course of reviewing this?

11 MS. BEST: Well, yes. I think the  
12 harmful algal blooms goes directly to some of  
13 these factors. So, if you're looking at factor  
14 six, the potential impact on human health through  
15 direct, and indirect pathways, if EPA is saying  
16 in response to experts who say there is  
17 substantial information that these pollutants can  
18 stimulate harmful algal blooms, and EPA's  
19 response is we don't have enough information to  
20 make this determination on something that is  
21 critical to human health, and critical to marine  
22 life, then that suggests they don't have



1 sufficient information on that factor, on that  
2 ocean discharge criteria evaluation factor.

3 JUDGE AVILA: I'm sorry, but can I  
4 just follow up on that? I don't think they said  
5 there wasn't sufficient evidence to make a  
6 determination on the impact on red tides, I think  
7 they said there wasn't enough scientific evidence  
8 available to suggest that the proposed project  
9 would directly relate to the occurrence of red  
10 tides. And that seems different than saying  
11 there's insufficient information to make a  
12 determination as to the effect.

13 MS. BEST: Well, your honor, if in  
14 response to comments saying this is a serious  
15 concern, their response is that there's not  
16 sufficient information, I don't see how it's  
17 reasonable for them to conclude that they can  
18 have enough information to make a determination  
19 on whether the pollutant discharge here will  
20 impact human health.

21 If they're not engaging, and they  
22 don't have enough information to see how this

1 will affect harmful algal blooms, then  
2 necessarily they don't have enough information to  
3 see how this will impact human health.

4 JUDGE LYNCH: I mean didn't -- go  
5 ahead.

6 JUDGE STEIN: I think part of what  
7 we're grappling with here is that the language in  
8 the unreasonable degradation, in 125.121(e)(2) is  
9 different from the individual factors that have  
10 to be considered when making that determination,  
11 which are laid out in 125.122(a)(6). So, what is  
12 the relationship between the process, and the  
13 determination? Must the region go through each  
14 of those ten factors irrespective of whether it  
15 has already decided that it will result in  
16 unreasonable degradation?

17 I'm wondering if you can explain to us  
18 how this regulation fits together between  
19 121(e)(2) and 122(a)(6), because the language is  
20 different.

21 MS. BEST: Well, your honor, looking  
22 at the language of 122, and at (a), you look at

1 122(a), it says the director shall determine  
2 whether discharge will cause unreasonable  
3 degradation based on the consideration of these  
4 ten factors. That language it shall indicates  
5 that this is a mandatory consideration, it must  
6 look at every single one of these factors.

7 Also if you look at the language of  
8 the Clean Water Act itself, in the statute, at 33  
9 USC 1343, it lists kind of a guideline  
10 determining degradation of the water. And it  
11 lists seven different guidelines, and it says  
12 that the agency is tasked to issue regulations on  
13 those guidelines. And if you look at 33 USC  
14 1343(2), it says where there's insufficient  
15 information on any proposed discharge to make a  
16 reasonable judgment on any of the guidelines  
17 established pursuant to this subsection, no  
18 permit shall be issued.

19 So, in the statutory language itself,  
20 it indicates that if EPA can't make a judgment on  
21 any one of those guidelines, it cannot issue a  
22 permit.

1                   JUDGE LYNCH: Counsel, didn't they  
2                   make an affirmative judgment that because of the  
3                   size, and location, and currents in the Gulf of  
4                   Mexico at this particular location, and they did  
5                   this in consultation with NOAA, that there was no  
6                   -- based on what they found to be sufficient  
7                   information, they made an affirmative  
8                   determination that there was no unreasonable  
9                   degradation from the discharges from this  
10                  particular facility?

11                  MS. BEST: Your honor, they said that  
12                  in a conclusory manner, but when you look at the  
13                  ocean discharge criteria evaluation, and when you  
14                  look at the response to comments, and the actual  
15                  analysis here, that's when it's clear that they  
16                  admit, quote from 35 of the ocean discharge  
17                  criteria evaluation, there's not enough  
18                  scientific evidence available to make these  
19                  determinations. And they also --

20                  JUDGE LYNCH: No, what they say --  
21                  counsel can I -- they say there's not enough  
22                  scientific evidence available to suggest a link

1 from nutrients from fish farms, or that facility  
2 to the occurrence of red tides. Isn't the  
3 question whether the discharge from this  
4 particular facility causes unreasonable  
5 degradation? They're saying that the evidence  
6 from other places doesn't show a link.

7 They're making, to me, a credible  
8 reading, is they're making an affirmative  
9 statement that there's enough information to say  
10 there's no link. Do you not see that as a  
11 credible reading of that statement?

12 MS. BEST: Your honor, with all due  
13 respect, I don't see that. Especially when you  
14 look at how they changed the draft from the  
15 final, where they start out saying there's no  
16 good evidence, and then they admit that that  
17 statement was misleading. And so then they  
18 changed it to there's not sufficient information.  
19 I think that shows that there's not sufficient  
20 information to make this finding.

21 And I'd also like to point to one  
22 other NOAA study, which is attached in the

1 response to our reply brief, and they handed you  
2 that to say we used this to show that there's not  
3 enough direct link. But again, if you look at  
4 that study, it doesn't support EPA's conclusion.  
5 In fact that study says it's recommended that  
6 farms be sited away from areas with a history of  
7 reoccurring harmful algal blooms, and that's at  
8 page 63 of the study.

9 They also say a best management  
10 practice would be siting these farms outside of  
11 nutrient sensitive habitats. So, that study kind  
12 of says don't put these facilities in places  
13 where there's harmful algal blooms, and also in  
14 addition to that, you should put them in places  
15 that have high current, and have all these other  
16 things.

17 And EPA sort of ignored a big,  
18 important part of that siting, which is  
19 recommending that they don't be sited in places  
20 where there's reoccurring harmful algal blooms.

21 JUDGE LYNCH: Well, I think what they  
22 say in the record, in concert with NOAA, is that

1 this particular location is away from those  
2 areas.

3 MS. BEST: Well, your honor, if you  
4 look at the response to comments at 24, they  
5 admit that red tide developed 10 to 40 miles off  
6 shore, and this is 45 miles off shore, so it's  
7 just approximately about where these red tides  
8 develop, and then the ocean currents would  
9 transport them back onto shore. Another expert  
10 talked about this, and said that studies have  
11 been done that show that actually this will go up  
12 to shore in just a couple days.

13 JUDGE LYNCH: In other locations,  
14 correct? I mean the NOAA, and the EPA modeling  
15 showed that the currents will take the red tide  
16 away.

17 MS. BEST: No your honor. The EPA  
18 said they did not have sufficient information.  
19 The EPA indicated a little bit that we don't need  
20 to look at this because there's enough current.  
21 But when they were pushed on this, and in  
22 response to comments, and when someone said that

1 pollutants from the proposed fish farm can arrive  
2 on beaches in only a few days, in response to  
3 comment at page 25 EPA says quote EPA did not  
4 perform an analysis of whether particles will  
5 arrive near the West Florida shore.

6 EPA went on to say, at 25 again in  
7 response to comments, quote EPA does not have  
8 enough information to make a determination if the  
9 analysis is relevant to the proposed facility.  
10 So, again, when pushed on these issues in  
11 response to comments, they agree they don't have  
12 enough information to make this finding.

13 JUDGE LYNCH: Well, let me ask you  
14 this. Why isn't the small size of the facility  
15 relevant? You seem to dismiss that in your  
16 petition. And I want to understand that better,  
17 because the first factor to be considered in the  
18 ODC evaluation involves quantity of pollutants.

19 MS. BEST: Your honor, it does involve  
20 quantity, but it's not limited to quantities.  
21 It's also the composition, the potential for  
22 bioaccumulation, or persistent pollutants. This



1 is over 80000 pounds of fish, more than 20000  
2 pounds of fish food every month being dumped into  
3 this facility, and it's the first of its kind in  
4 the Gulf of Mexico. It's been established that  
5 this is a vulnerable biological community.

6 So, it is of a real concern, where the  
7 impact can't just be written off because of the  
8 size of the facility.

9 JUDGE LYNCH: So, counsel on that  
10 point, I wanted to ask you for some clarification  
11 about your position, and arguments that you  
12 discuss on pages seven to eight of your petition.  
13 So, in that discussion, in pages seven to eight,  
14 you say there's no legal framework for regulating  
15 offshore aquaculture. You discuss the circuit  
16 striking down the NOAA regs, you seem to  
17 criticize, at least timing wise, Executive Order  
18 13921 that was issued May 7th, 2020.

19 You talk about the need for  
20 congressional legislation. What I want to  
21 understand is whether your position is that at  
22 this time no NPDS permit for these type of

1 facilities is appropriate in the Gulf of Mexico,  
2 which of course is not a cold water environment,  
3 you make that point.

4 MS. BEST: Yes your honor. I think  
5 that the fifth circuit's recent decision in the  
6 Gulf Fisherman's Association versus National  
7 Marine Fishery Service is important to consider  
8 here, saying that part of this permit process  
9 relied on NOAA, and NOAA's regulatory authority,  
10 and where it's clear that the circuit said no,  
11 NOAA did not have authority to regulate  
12 aquaculture, and that we need to hear from  
13 Congress on this issue.

14 And Congress hasn't discussed  
15 regulation with aquaculture in the Gulf of  
16 Mexico, or in the federal waters, that this is  
17 something that EPA should not issue this permit  
18 until there's more regulatory guidance, until  
19 there's more guidance from Congress on whether,  
20 or not this type of activity is authorized by  
21 Congress.

22 JUDGE LYNCH: And then in terms of the

1 executive order -- excuse me, could I just finish  
2 my question -- so, in terms of the executive  
3 order, that's still in effect. Are you asking  
4 the Board to factor that in our consideration, or  
5 is that relevant to our deliberation here?

6 MS. BEST: Well, the executive order  
7 on it states that it's not attempting to change  
8 the law, and the executive order does kind of  
9 reference that NOAA could be a part of this  
10 regulatory process. So, I think to the extent  
11 that the executive order says it's not changing  
12 the law, then it shouldn't really be relevant to  
13 the legal analysis of these issues.

14 JUDGE LYNCH: So, then why is it  
15 discussed in your petition? I'm trying to figure  
16 out what your point is, and what you want us to  
17 consider?

18 MS. BEST: I think I'm trying to  
19 convey just the background of how this facility  
20 has been proposed, and what's going on, and that  
21 Congress wasn't regulating these things, and the  
22 previous administration was kind of trying to

1 push for the industry --

2 JUDGE LYNCH: Well, the executive  
3 order is still in effect under this  
4 administration, isn't it?

5 MS. BEST: Your honor, I would have to  
6 double check, I'm not sure if this administration  
7 has taken any specific action on that executive  
8 order.

9 JUDGE LYNCH: I don't believe it has,  
10 but that's a matter of public record.

11 JUDGE STEIN: So, I have some  
12 questions I'd like to ask, in particular about  
13 the Endangered Species Act issues. Why is --  
14 under the Board's case law, we have said that the  
15 agency can reasonably rely on the service's  
16 expert opinion. As I understand it, NMFS, the  
17 National Marine Fisheries Service has concurred  
18 on the region's approach here in 2019. And why  
19 would it not be appropriate for the Board to rely  
20 on their concurrence in resolving this case?

21 And you may proceed, because I imagine  
22 Judge Avila will have some questions, and we will

1 go over, and we will provide equal time to  
2 everyone.

3 MS. BEST: Yes your honor, thank you  
4 for giving me time to answer that question. If  
5 you look at the Endangered Species Act law that's  
6 relevant here, the 16 USC 1536(a)(2), it says  
7 that each federal agency shall, in consultation  
8 with, and assistance of the secretary, ensure  
9 that any action is not likely to jeopardize the  
10 continued existence of any endangered, or  
11 threatened species.

12 So, it's not limited to just the  
13 consulting agency, it's every agency, including  
14 the action agency. And here, the consultation  
15 process essentially relied largely on the EPA's  
16 biological assessment. And where each federal  
17 agency, including the action agency, and the  
18 consultation agency has obligations under the  
19 Endangered Species Act, the EPA doesn't kind of  
20 get a free pass because another agency signed off  
21 on it.

22 Especially when that agency is relying

1 on their analysis, and their biological  
2 assessments.

3 JUDGE STEIN: So, what was missing?  
4 I want to be sure that I fully understand. I  
5 know you've made some arguments about fish  
6 attracting device, and I know the region has  
7 referred to them as fish-aggregating devices,  
8 where would we find EPA, and the region's  
9 consideration of -- EPA, and Fish and Wildlife  
10 Service's consideration of those issues?

11 MS. BEST: Well your honor, their  
12 consideration of the issues in the biological  
13 evaluation, and in the concurring letter is  
14 missing -- is largely not there, there's no  
15 analysis of it. If you look at the region's  
16 response to comments, it acknowledges that this  
17 facility can act as a fish-aggregating device,  
18 and that it is reasonable to assume fish will be  
19 attracted to the pen.

20 The EPA also admits that commercial,  
21 and recreational fishermen are expected to visit  
22 the proposed project because it could act as a

1 fish-aggregating device. And that's why there's  
2 been a serious flaw with the region's analysis of  
3 this on threatened, and endangered species. I  
4 think it's really critical to note that if this  
5 is a fish-aggregating device, and it is going to  
6 attract threatened, and endangered species as  
7 well as commercial, and recreational fishermen,  
8 that creates a high risk situation for these  
9 threatened, and endangered species.

10 Most of them are threatened because of  
11 vessel strikes, and because of bycatch in  
12 commercial fisheries. In EPA's biological  
13 assessment, they ignore this. They explicitly  
14 say their findings are based on the minimal  
15 vessels associated with the facility, on one  
16 vessel that will come to this facility, and that  
17 it will be slow.

18 So, the fact that they don't account  
19 for the increased vessels that will be there  
20 because of it acting as a fish-aggregating device  
21 shows that they didn't analyze this issue  
22 correctly, and this is a clear threat to

1 endangered sea turtles, to the Oceanic White  
2 Tipped Shark, to one of the other -- this is also  
3 home to one of the most endangered species of  
4 whale in the world.

5 In the analysis, it was the Bryde's  
6 Whale that has since been reidentified as the  
7 Rice's Whale that is only found in the Gulf of  
8 Mexico, and it could be impacted by these types  
9 of facilities.

10 JUDGE LYNCH: So counsel, do you  
11 disagree with NMFS's letter of concurrence, and  
12 their actions?

13 MS. BEST: Yes your honor, and the  
14 letter of concurrence doesn't address these  
15 issues at all, it merely defers --

16 JUDGE LYNCH: And have you challenged  
17 NMFS's actions?

18 MS. BEST: Your honor, as of now we  
19 have not, I believe that this permit isn't  
20 finalized until a decision from this Board, and  
21 there is also other pending permits that would  
22 require ESA consultation, so we have not.



1                   JUDGE LYNCH: Do you disagree with the  
2 case law that says letters of concurrence are  
3 final agency action for the consulting agency?

4                   JUDGE STEIN: For the consulting  
5 agency?

6                   JUDGE LYNCH: For the expert, for  
7 NMFS.

8                   JUDGE STEIN: Okay.

9                   MS. BEST: No your honor, I'm not --  
10 I mean I don't know that it's part of this  
11 action, whether, or not we have challenged that,  
12 and whether, or not we plan to challenge it. I  
13 just know that as part of this permitting, we're  
14 challenging EPA's biological assessment, and  
15 their evaluation of the Endangered Species Act.

16                   JUDGE LYNCH: Well, what I'm trying to  
17 understand also is do you disagree with the Board  
18 precedent in which we do consider the expert  
19 agency's opinion?

20                   MS. BEST: Well your honor, I guess I  
21 would like some more clarification. I'm not  
22 saying that the Board cannot consider that, I'm

1 just saying based on the evidence, and based on  
2 the fact that EPA for example has admitted that  
3 this will act as a fish-aggregating device, and  
4 then not analyzed that in the biological  
5 assessment, that that's a violation of the  
6 Endangered Species Act.

7 JUDGE LYNCH: One of the things the  
8 Board has looked at in determining whether the  
9 region was reasonable, or arbitrary, and  
10 capricious, whatever term you want to use, is  
11 whether their reliance on the expert agency's  
12 opinion, whether that was reasonable.

13 MS. BEST: Well your honor, in this  
14 case, the letter of concurrence is less than  
15 eight pages, and it just repeatedly refers back  
16 to the EPA's evaluation, that the EPA evaluated,  
17 that there would be relatively small amounts --

18 JUDGE LYNCH: Well, actually didn't  
19 they disagree with EPA on EPA's conclusion of  
20 critical habitat?

21 MS. BEST: Your honor, I don't know  
22 that off the top of my head, I don't believe that

1 was part of our petition.

2 JUDGE LYNCH: Okay.

3 JUDGE STEIN: Aaron do you have some  
4 questions?

5 JUDGE AVILA: Yeah on that, you  
6 mentioned the whales, and particularly the Gulf  
7 Rice Whale in your petition, and that's something  
8 that in fact NMFS downgraded EPA's may affect,  
9 not likely to adversely affect finding to a no  
10 effect determination. NMFS said in their  
11 concurrence letter at four, and five, that it did  
12 so based on its conclusion that it does not  
13 believe any of those species will occur in the  
14 action area of this project, or close enough for  
15 there to be any potential routes of the effect to  
16 these species.

17 So, I guess I'm wondering what am I  
18 supposed to do with NMFS's conclusion on that. I  
19 mean how does that interact with this proceeding,  
20 or with the region's biological assessment?

21 MS. BEST: Well your honor, in the  
22 environmental assessment, it says that these

1 species could occur in the action area, and it's  
2 clear that because this is such an endangered  
3 whale, there is not a lot known about the  
4 occurrence of where this whale is located. And  
5 if you look at the listing of this whale, it says  
6 that any -- a loss of any single whale is likely  
7 to adversely impact the entire species.

8           And in the environmental assessment  
9 part of their conclusion as to this whale, that  
10 there would be minimal vessel trips, which again,  
11 is called into question because they didn't  
12 account for the fact that this would act as a  
13 fish-aggregating device. So, I think the Board  
14 really needs to look at all the evidence as a  
15 whole, and if there are inconsistencies with the  
16 statements about how this facility will impact  
17 threatened, and endangered species, that at least  
18 it seems like they should go back, and do maybe a  
19 formal consultation so there's more information.

20           Like I said, the letter of concurrence  
21 is very short, and conclusory in a lot of these  
22 issues, and I think a formal opinion, and

1 consultation is warranted in this situation.

2 (Simultaneous speaking.)

3 JUDGE LYNCH: Did NMFS --

4 JUDGE STEIN: Let me ask another  
5 question --

6 JUDGE LYNCH: Go ahead.

7 JUDGE STEIN: I'm trying to understand  
8 the relationship between the Endangered Species  
9 Act, and the terms of the NPDES permit. And  
10 we've talked a bit about the consultation  
11 process, and you've just told us that you think  
12 there should be formal consultation. Can you  
13 give us an example, if there is one in your  
14 record, of some of the ESA generated materials  
15 that influenced the terms of the Ocean Era NPDES  
16 permit?

17 MS. BEST: I'm sorry, could you repeat  
18 the last sentence you just said? I didn't get  
19 that.

20 JUDGE STEIN: Can you give us an  
21 example of where the ESA generated, or related  
22 materials that influence the terms of the Ocean

1 Era NPDES permit? Is there a relationship  
2 between those ESA provisions we were just talking  
3 about, and the conditions of the NPDES permit?

4 MS. BEST: Your honor, I would say it  
5 would appear that it has not had much of an  
6 influence on the permit, that because the region  
7 kind of disregarded a lot of the impact on the  
8 threatened endangered species, there's not enough  
9 adequate protection in the permit for these  
10 threatened, and endangered species. The permit  
11 kind of mentions very vague general things of the  
12 vessels will slow down, or they'll report any  
13 strikes, what species.

14 But again, none of these are really  
15 sufficient to protect the threatened, and  
16 endangered species that may be in the area. And  
17 while NOAA may have indicated that certain  
18 species are not likely to be in the area, there's  
19 other species, for example the EPA acknowledged  
20 that ESA listed turtles may be in the area, and  
21 may be attracted to the aquaculture facility as  
22 potential sources of food, show up there, and

1       there is really not enough conditions in the  
2       permit to help protect these species.

3                   JUDGE STEIN: Thank you. Judge Lynch,  
4       did you have a further question?

5                   JUDGE LYNCH: I was just going to ask  
6       whether, or not it's true that NOAA's expert  
7       opinion was that there would be no likely impact  
8       on those turtles.

9                   MS. BEST: Your honor, the letter of  
10       concurrence was based largely on the biological  
11       assessment, and on EPA's own evaluation, which  
12       said this project is only going to be associated  
13       with very limited vessels, just one support  
14       vessel for the facility, and didn't discuss it  
15       acting as a fish-aggregating device, and didn't  
16       really analyze the fact that threatened, and  
17       endangered species would be attracted to this, as  
18       well as commercial, and recreational fishing  
19       vessels that would create a serious risk for  
20       these threatened, and endangered species.

21                   So, I think the fact that NOAA may  
22       have concurred does not give -- again, does not

1 give EPA a pass on this. It's clear that EPA did  
2 not comply with their requirements under the  
3 Endangered Species Act, and the Endangered  
4 Species Act applies to both agencies.

5 JUDGE LYNCH: Are you saying NOAA  
6 didn't comply with their responsibilities?

7 MS. BEST: Well NOAA is not the  
8 forward -- but I would think that both agencies  
9 potentially did not comply with their  
10 responsibilities, yes your honor.

11 JUDGE LYNCH: Thanks.

12 JUDGE STEIN: Any further questions  
13 from the panel?

14 JUDGE LYNCH: No, not at this point,  
15 thanks.

16 JUDGE AVILA: No more from me.

17 JUDGE STEIN: All right, thank you  
18 very much. And if the Clerk of the Board can  
19 just allocate an equal amount of additional time,  
20 and advise the counsel who is proceeding next.  
21 Thank you.

22 MR. CORTES: Yes your honor.



1 JUDGE STEIN: You may proceed.

2 MS. STEVENSON: Good afternoon, I'm  
3 Meredith Stevenson, counsel for the Center for  
4 Food Safety. I would like to reserve ten minutes  
5 for rebuttal. This case is about the duty of a  
6 federal agency to consider, analyze, and disclose  
7 to the public the potentially significant  
8 environmental impacts for permitting a novel  
9 offshore aquaculture facility in the Gulf of  
10 Mexico.

11 As there are so many, according to the  
12 agency, and the company itself, for the sequenced  
13 aquaculture plan, and NOAA's plan for the Gulf of  
14 Mexico as an aquaculture opportunity area. EPA  
15 failed to conduct robust environmental review for  
16 this facility, and based its approval of Velella  
17 Epsilon on three clearly erroneous conclusions.  
18 First, its conclusion that Velella Epsilon would  
19 cause no unreasonable degradation without  
20 evaluating each discharge authorized by the NPDES  
21 under the mandatory ocean discharge criteria  
22 factors.

1                   Second, its conclusion that the  
2 project's potential threats are not likely to  
3 adversely affect listed species, or critical  
4 habitats without considering each discharge, and  
5 each impact of the facility. And third, its  
6 finding of no significant impact for the facility  
7 that is by definition significant given its  
8 unprecedented nature, and unknown impacts.

9                   As a bit of background, just kind of  
10 mention that this facility is small pilot scale,  
11 just to give background, this facility allows for  
12 20000 fish, weighing around 80000 pounds, which  
13 is significantly more than the annual catch for  
14 the waters in recent years. It allows for 27000  
15 pounds of food to be released into the Gulf of  
16 Mexico each month. It is located squarely in the  
17 path of numerous recent hurricanes in a sensitive  
18 area with over 20 federal species.

19                   And in an area struggling to recover  
20 from recent oil spills. The EPA failed to  
21 adequately review this project under the ocean  
22 discharge criteria. So, this panel has already

1 brought up -- did the EPA need to review each  
2 pollutant under each mandatory factor under the  
3 ocean discharge criteria? The answer to that  
4 question is yes. The plain text of the Clean  
5 Water Act states the discharge of any pollutants  
6 by any person shall be unlawful.

7 Section 403, which enumerates the  
8 ocean discharge criteria relevant here states  
9 that where insufficient information exists on any  
10 proposed discharge to make a reasonable judgment,  
11 then there can be no permit issued. The scope,  
12 and purpose of the ocean discharge criteria was  
13 not just guidelines for the discharge of  
14 pollutants.

15 The plain text of the Clean Water Act  
16 defines discharge of pollutants as any addition  
17 of any pollutant to the waters of the contiguous  
18 --

19 JUDGE STEIN: Can you tell us which  
20 pollutants you think the region did not analyze?  
21 Just so I am clear, which pollutants you believe  
22 they did not analyze, or did not adequately

1 analyze?

2 MS. STEVENSON: Yes your honor. We  
3 believe they did not adequately analyze  
4 phosphorous, and nitrogen, which were already  
5 discussed in regards to harmful algal blooms.  
6 But they also did not adequately analyze the  
7 discharged antibiotics, pathogens, escaped fish,  
8 and copper.

9 JUDGE STEIN: With respect to copper,  
10 did you challenge this finding in -- the region  
11 indicated in its response to comments at page 15,  
12 that copper would not be measurable in the  
13 effluent. Did you challenge this finding in your  
14 petition?

15 MS. STEVENSON: Yes, well we based  
16 this in our comments on page nine, and we did  
17 challenge this finding in our petition because  
18 what the EPA stated was that there was limited  
19 water quality data regarding the use of copper in  
20 marine aquaculture operations. And that was on  
21 page 15 of the response to comments. And because  
22 there was that limited water quality information,

1 the agency established water quality standards  
2 for copper, and its NPDES permits.

3 And therefore the agency acknowledged  
4 blatantly comparability discharge. They have no  
5 idea how much copper would be discharged, what  
6 the impacts will be. As we stated, copper is not  
7 mentioned once in the ocean discharge criteria  
8 evaluation.

9 JUDGE LYNCH: And did you raise this  
10 in your petition, or in your reply brief?

11 MS. STEVENSON: We raised it in our  
12 petition, and in our reply brief that the agency  
13 failed to adequately analyze the discharge of  
14 copper under the ocean discharge criteria  
15 evaluation relevant factors. We base our concern  
16 of potential bioaccumulation of copper, copper is  
17 a heavy metal, heavy metals do tend to  
18 bioaccumulate in fish, another example is  
19 mercury.

20 Mercury, because of that reason, we  
21 raise this in our comments specifically. We  
22 stated that copper was not analyzed in the ocean

1 discharge criteria, and we raised our concern  
2 about the accumulation of copper in our petition.  
3 And the agency responded that copper was not  
4 quote a pollutant of concern in their response.  
5 Now, as I just stated, the ocean discharge  
6 criteria, it's mandatory for any pollutant, which  
7 by definition means all pollutants.

8 So, all pollutants that may be  
9 discharged from the facility shall --

10 JUDGE STEIN: Are you suggesting they  
11 should have set limits for phosphorous, and  
12 nitrogen in addition to the discharges of fecal  
13 matter, and fish food?

14 MS. STEVENSON: They should have set  
15 limits for their discharge?

16 JUDGE STEIN: Yes, for phosphorous,  
17 and nitrogen?

18 MS. STEVENSON: No, there are no water  
19 quality criteria -- there are no sort of total  
20 maximum daily loads for discharges into federal  
21 waters, and that's one of the main issues here.  
22 Is that there's very little oversight here.

1 There's no effluent limitations for a permit like  
2 this, in which a facility is discharging into  
3 federal waters. That just makes the ocean  
4 discharge criteria evaluation that much more  
5 essential here in assuring that we are meeting  
6 the goals of the Clean Water Act to restore, and  
7 maintain the quality of the waters in our  
8 country. And so yes --

9 JUDGE STEIN: Go ahead.

10 MS. STEVENSON: I was just going to  
11 say copper is one of many pollutants that were  
12 not analyzed. So, I can run through some more  
13 that we noticed it was lacking information for.  
14 Another one would be antibiotics. So, the EPA  
15 has definitively acknowledged that antibiotics  
16 will be discharged, or can be discharged. The  
17 agency allows for up to three different  
18 antibiotics to be used in this facility.

19 It contains no limits in the NPDES  
20 permit on the use of any of these antibiotics.  
21 So, any amounts could be discharged.

22 JUDGE STEIN: Would that be prudent to

1 the final permit -- didn't in the final permit  
2 put in a condition for a veterinarian to have to  
3 certify certain things about the discharge, as to  
4 health, and safety, does that not respond to your  
5 concern?

6 MS. STEVENSON: Yes. So, NPDES does  
7 require veterinary oversight in administering the  
8 antibiotics, however nowhere does the agency  
9 state how that would prevent the different  
10 impacts that are acknowledged, like antibiotic  
11 resistant pathogens, from forming near the fish  
12 farm. How that will prevent any impacts to the  
13 surrounding environment, to the composition, and  
14 vulnerability of the surrounding ecosystem, that  
15 is not explained anywhere.

16 So, that is a very cursory  
17 explanation, it does not provide a substantial  
18 explanation for how that veterinary oversight  
19 over the administration of antibiotics will  
20 actually prevent entirely, any impacts to the  
21 environment. And EPA does give a few other  
22 conditions --



1                   JUDGE LYNCH: Counsel, you said  
2 prevent any impacts, is that the standard we're  
3 looking at, any impacts to the environment, or  
4 unreasonable degradation?

5                   MS. STEVENSON: Well, the agency is  
6 really relying on this mitigation measure of  
7 having a veterinarian oversee this as their  
8 reason for not evaluating each of these other  
9 discharges, or each of these other factors. So,  
10 yeah, the agency is saying -- one of the ten  
11 factors is other relevant factors, and that would  
12 include mitigation measures according to the  
13 agency.

14                  JUDGE LYNCH: But what did you mean by  
15 any impacts?

16                  MS. STEVENSON: Well the impacts --  
17 well, the agency was required under the ocean  
18 discharge criteria evaluation to also evaluate  
19 impacts to the composition, and vulnerability of  
20 the biological community, impacts to endangered  
21 species, impacts to spawning sites, foraging  
22 grounds, all kinds of impacts are required to be

1 analyzed under the ocean discharge criteria  
2 evaluation, and they were not, they were not.

3 The agency did kind of discuss  
4 antibiotic resistance, and the possibility of  
5 that, which is -- that would kind of fall under  
6 the category of an impact on human health.  
7 However all of those studies in that discussion  
8 are more than 30 years old, and are from  
9 locations around the world not even close to the  
10 conditions that we will experience here in the  
11 Gulf of Mexico.

12 So, places like Norway, studies from  
13 Japan, studies from Puget Sound, and even these  
14 studies, one study from Japan did find antibiotic  
15 resistant pathogens near a fish farm, and the  
16 agency stated just because they found it there,  
17 doesn't mean that's going to happen here. What's  
18 more, without providing any additional  
19 explanation for why that would be. And the  
20 agency even --

21 JUDGE LYNCH: Go ahead.

22 MS. STEVENSON: I was going to say the

1 agency even stated there are different factors  
2 that can contribute to antibiotic resistance,  
3 like the temperature on the containment of the  
4 fish, all these different factors, and none of  
5 those were analyzed in the context of this  
6 facility, this temperature, this area of the Gulf  
7 of Mexico, and how that could contribute to  
8 antibiotic resistance.

9 JUDGE AVILA: Are you saying that  
10 studies from anywhere other from the Gulf of  
11 Mexico are irrelevant?

12 MS. STEVENSON: No, they're relevant,  
13 but the ocean discharge criteria evaluation needs  
14 to also consider local conditions. So, this is  
15 in the preamble to the ocean discharge criteria.  
16 That these factors that are effecting human  
17 health, either directly, or indirectly should be  
18 addressed considering the location of the  
19 discharge.

20 JUDGE AVILA: Where in the preamble  
21 are you reading from?

22 MS. STEVENSON: I'm reading from, let

1 me see, this is 69945.

2 JUDGE LYNCH: Well, I'm a little  
3 confused now, because I read your arguments, and  
4 other petitioner's arguments to rely in part on  
5 studies from other countries, and other  
6 locations.

7 MS. STEVENSON: Yes, well those are  
8 just shedding light on the major impacts that  
9 offshore aquaculture have had all around the  
10 world. Those are just shedding light in part, on  
11 very important impacts, the agency has  
12 acknowledged that antibiotic resistance can  
13 occur. And on page 48 of its environmental  
14 assessment, states that this can harm the health  
15 of consumers. That this actually is a human  
16 health concern.

17 And also in their response to  
18 comments, states that antibiotic resistance can  
19 harm human health through indirect, or direct  
20 pathways. Aquaculture practices can lead to  
21 elevated levels of antibiotic residuals, and that  
22 can result in a human health impact. And so the

1 agency has acknowledged that this could happen.  
2 We supported it with studies from around the  
3 world, yes, this could happen.

4 But all we get in this evaluation are  
5 30 to 60 year old studies from Norway, Japan, and  
6 Puget Sound.

7 JUDGE AVILA: I was going to ask kind  
8 of a legal question.

9 MS. STEVENSON: Yes.

10 JUDGE AVILA: In your brief, as part  
11 of the unreasonable degradation definition, it  
12 says unreasonable degradation means, number two  
13 is threat to human health through direct exposure  
14 to pollutants, or through consumption of exposed  
15 aquatic organisms. And in your brief, you kind  
16 of repeatedly say, and I don't mean that as  
17 judgment, but it's a threat to human health.

18 And I was wondering, under your  
19 theory, if there's any room for the agency to  
20 consider how likely a threat to human health  
21 might be in its analysis?

22 MS. STEVENSON: I would say no, that

1       there is no room for that. And I say that  
2       because there are three different factors. Any  
3       of those factors could mean unreasonable  
4       degradation. And the first factor says  
5       significant adverse changes in ecosystem  
6       diversity, and other things. So, that would  
7       allow for the agency to have some room to say  
8       this wasn't significant, this wasn't enough.

9                       But in number two, it just states  
10       threat to human health. So, we interpret that as  
11       meaning any threat to human health.

12                      JUDGE AVILA: So, can I just give you  
13       a hypothetical?

14                      MS. STEVENSON: Yes.

15                      JUDGE AVILA: If a person goes outside  
16       in the middle of a thunder, and lightning storm,  
17       and there's a possibility that the person will be  
18       struck by lightning, although it's a very low  
19       possibility, probably 1 in 500000, is that a  
20       threat to human health?

21                      MS. STEVENSON: I would say yes, yes  
22       it is. Because here we have three different

1 factors. One of them says significant, one of  
2 them is not. So, Congress, or EPA did that for a  
3 reason. EPA interpreted Congress's direction to  
4 the agency, and defined unreasonable degradation  
5 in this way. I would also support my point about  
6 it could mean any threat.

7 That factor relevant here is potential  
8 impacts to human health, either direct, or  
9 indirect. So, that is a factor that is required  
10 to considered, potential. And that was not, it  
11 just wasn't considered adequately here.

12 JUDGE AVILA: Potential was one of the  
13 ten criteria that are evaluated, but the  
14 unreasonable degradation means threat to human  
15 health, not potential threat though, right?

16 MS. STEVENSON: Yes, that's correct.

17 JUDGE LYNCH: And isn't the director's  
18 determination on unreasonable threat one based --  
19 the standard is a reasonableness standard, that's  
20 what he's held to.

21 MS. STEVENSON: You're asking if this  
22 is a reasonableness standard, or the definition

1 of --

2 JUDGE LYNCH: The director's  
3 determination.

4 MS. STEVENSON: The director's  
5 determination?

6 JUDGE LYNCH: Yes.

7 MS. STEVENSON: Well, the director is  
8 just making this determination based on all of  
9 these relevant factors. And he, or she needs to  
10 consider all ten. I believe there was a question  
11 early of whether --

12 JUDGE LYNCH: Yeah, in the preamble to  
13 the regulation talks about the standard that the  
14 director uses is one of reasonableness.

15 JUDGE STEIN: So what is our burden on  
16 appeal? Is it petitioner's burden to prove the  
17 opposite of what EPA is saying? Or is it  
18 petitioner's burden to demonstrate to the Board's  
19 satisfaction that the region's decision making  
20 was arbitrary, or capricious? What do you need  
21 to show for the Board to consider, or to conclude  
22 that you have met the burden that you must meet



1 in this case?

2 MS. STEVENSON: Our burden is to show  
3 that the agency's consideration was arbitrary,  
4 and capricious. And so to meet that burden, we  
5 need to look through each pollutant that is  
6 authorized in NPDES, and then look to each  
7 factor, and determine was that factor adequately  
8 considered under the ocean discharge criteria  
9 evaluation, if at all? Was it considered at all?

10 JUDGE STEIN: Can it be considered in  
11 response to comments? So, for example we talked  
12 with another petitioner earlier in this argument  
13 about the fact that certain aspects of this were  
14 not -- do not appear to have been discussed in  
15 the ocean discharge criteria evaluation, but were  
16 discussed in the response to comments. Can we  
17 look to the response to comments, or is it fatal  
18 to the EPA's position if they didn't include it  
19 in the ocean discharge criteria evaluation?

20 MS. STEVENSON: It needs to be  
21 included in the ocean discharge criteria. And  
22 agency's reasoning as to why, or why not it made

1 a decision needs to be included in that decision  
2 document. And even if that were not the case,  
3 their response to comments is entirely  
4 inadequate. Their response to comments nowhere  
5 discusses all of these factors based on local  
6 conditions, based on studies that are within the  
7 last decade, or anywhere in these type of  
8 commissions that we're going to experience here.

9 This is a novel facility. This is the  
10 first time this has ever happened. All of these  
11 statutes that we're looking at here are  
12 precautionary statutes.

13 JUDGE STEIN: Yes. Can you try to  
14 repeat what you just said Ms. Stevenson?

15 MS. STEVENSON: I'm just reminding the  
16 Board that this is the first time this has ever  
17 happened in offshore waters. It's absolutely  
18 essential that this evaluation is robust, and  
19 considers each pollutant that will be discharged  
20 under each factor.

21 JUDGE STEIN: And can you again, just  
22 so I'm clear, that the pollutants to be

1 discharged is broader than the fecal matter, in  
2 your opinion, and broader than the fish food?  
3 That would include the other pollutants that  
4 you've mentioned as well?

5 MS. STEVENSON: Yes, well the fecal  
6 matter, and the fish food, that is discharging  
7 phosphorous, and nitrogen, and that is  
8 specifically what is included in the NPDES permit  
9 as being discharged. Yes, so it would include  
10 any of those pollutants in the NPDES permit that  
11 will be discharged that are specifically  
12 mentioned, and that effluent limitations are  
13 provided for. Those are the ones that need to be  
14 evaluated under the ocean discharge criteria  
15 evaluation.

16 JUDGE STEIN: I wanted to ask you one  
17 additional question, because you argue in your  
18 petition pages 33, and 34, that the region was  
19 required to include a reopener clause as provided  
20 for in 125.123(d), and I had understood those  
21 requirements to be mandatory only for permits  
22 issued under 123(c) for insufficient information.

1 So, am I correct in understanding that the  
2 citation you gave us does not technically apply  
3 to this permit?

4 MS. STEVENSON: Well, your honor, it's  
5 unclear because the agency responded that it  
6 would not, because the agency had made a  
7 determination that there was sufficient  
8 information. However there is some conflicting  
9 things in the record. For example, the agency  
10 includes a statement made in the permit under  
11 123(d)(2), where the agency says that their role  
12 -- what is it?

13 It says that the discharge from the  
14 facility shall not cause unreasonable degradation  
15 of the marine environment underneath the  
16 facility, and the surrounding area under 40 CFR  
17 125.123(d)(3), so that condition is included in  
18 the permit, and is mentioned in the ocean  
19 discharge criteria evaluation. And the only  
20 reason that the agency would have to include that  
21 is if the agency had made a determination that  
22 there was insufficient information under 123 .

1           So, those provisions in D only apply  
2 when the agency has said something under 123 to  
3 make that determination. So, it is unclear, and  
4 it is our position, as well as the position of  
5 Friends of Animals that the agency does in fact  
6 lack sufficient information, and acknowledges  
7 that in reasonable basis in the record, we were  
8 just discussing antibiotics. So, again, with  
9 antibiotics, the agency states directly the  
10 technical details require further study.

11           This is on page 42 of the ocean  
12 discharge criteria evaluation. So, the agency  
13 even acknowledges yeah, these studies are 30, to  
14 60 years ago studies from Norway, Japan, and  
15 Puget Sound are not even enough. More details  
16 require further study. So, that alone is enough  
17 for the agency not to be allowed to issue this  
18 permit.

19           JUDGE AVILA: And I'm sorry, what were  
20 you just quoting from when you said that was what  
21 the region concluded, was that --

22           MS. STEVENSON: The agency -- sorry?

1 JUDGE AVILA: Just what were you  
2 quoting from?

3 MS. STEVENSON: That's from the ocean  
4 discharge criteria evaluation on page 42.

5 JUDGE AVILA: Okay, thanks.

6 MS. STEVENSON: Yes.

7 JUDGE LYNCH: I had some clarifying  
8 questions. You focus on the fact that this would  
9 be the first type facility in the Gulf of Mexico.  
10 So, I wanted to better understand your statement  
11 on page 16 of your petition, where you say that  
12 industrial aquaculture in the Gulf of Mexico such  
13 as the Velella Epsilon project are associated  
14 with many environmental, and public health  
15 concerns.

16 So, since it's the first, what are the  
17 concerns based on? Information from other  
18 locations, or -- I just wasn't tracking that.

19 MS. STEVENSON: Yes, this is from  
20 information from other locations.

21 JUDGE LYNCH: All right.

22 MS. STEVENSON: For example there was

1 -- from similar types of facilities. Like these  
2 net pen facilities which are basically just giant  
3 cages in the ocean, and this really concentrated  
4 sort of method of producing fish. Does that  
5 answer your question?

6 JUDGE LYNCH: So, give me an example  
7 of one of those facilities, the one in Hawaii  
8 that you --

9 MS. STEVENSON: Well, there was one in  
10 Hawaii from this same company.

11 JUDGE LYNCH: Yeah.

12 MS. STEVENSON: But one of our most  
13 similar examples is the Cooke Aquaculture  
14 Facility, that was in the Puget Sound, that was  
15 just a giant net pen in the ocean, just like this  
16 one, but that was in state waters, and just four  
17 years ago in 2017, over 260000 fish escaped from  
18 that facility. And so we're expecting that  
19 concern, that that can happen here.

20 JUDGE LYNCH: And how does that  
21 compare in size to this facility?

22 MS. STEVENSON: I don't have the exact

1 statistics.

2 JUDGE LYNCH: Well, a follow up I  
3 suppose is when I read pages 18 to 21 in your  
4 petition, and then listening to you today, am I  
5 right that one of your main concerns is that this  
6 facility would set a precedent?

7 MS. STEVENSON: Yes, this is one of  
8 our concerns, that this is a pioneering facility.  
9 The first ever facility in off shore water, in  
10 federal waters, under a federal permitting  
11 scheme. So, any other facility in state waters  
12 would make them subject to a lot more stringent  
13 regulation of the Clean Water Act. They would be  
14 subject to water quality standards, water quality  
15 based effluent limitations, and potentially even  
16 scaling back from daily loads. None of that can  
17 happen here, so --

18 JUDGE LYNCH: That would be true for  
19 any, not just for this project, but that would be  
20 true for any offshore aquaculture facility in  
21 federal waters, correct?

22 MS. STEVENSON: Correct. But also,



1 this is the first, so our major concern is that  
2 the agency did not sufficiently study the  
3 cumulative impacts of all of these facilities  
4 that are projected to be in this same area over  
5 the next five to ten years.

6 JUDGE LYNCH: So, would you  
7 contemplate a permit for this type of facility  
8 that would be acceptable, even if there are not  
9 water quality standards that would apply?

10 MS. STEVENSON: Well, our position is  
11 that there are insufficient regulations for  
12 offshore aquaculture, that there are many gaps in  
13 the regulation, especially for facilities like  
14 this in federal waters, and that it is  
15 insufficient to fulfill the purpose of the Clean  
16 Water Act of restoring, and maintaining the  
17 chemical, physical, and biological -- I'm sorry  
18 for the spiral -- it's insufficient.

19 JUDGE LYNCH: So, your thought is that  
20 permitting for these type of facilities, I'm  
21 talking about NPDES permitting anyway, should  
22 wait until there is either Congressional action,

1 or the agency promulgates water quality  
2 standards?

3 MS. STEVENSON: Well, we don't contest  
4 that EPA has authority to issue this NPDES  
5 permit, that's not contested at all in this  
6 litigation here. The agency never states that it  
7 doesn't have authority, or that NPDES wasn't  
8 required. All we're asking for here, in this  
9 situation, is that the agency conduct robust  
10 environmental review as required by statute.  
11 They didn't even do that. So yeah, the agency  
12 acknowledges this is the first one, so --

13 JUDGE LYNCH: So, in terms of robust  
14 consideration, how does that square -- on your  
15 petition at page 25, you talk about the lax  
16 requirements, but yet you seem to be saying that  
17 while they're lax, you seem to be interpreting  
18 them broadly, and imposing stringent  
19 requirements.

20 MS. STEVENSON: Well, I would not say  
21 that we're interpreting them broadly. We  
22 acknowledge that there are fewer requirements for

1 facilities like this in federal waters than there  
2 would be in state waters. And that is why we are  
3 so focused on ensuring that at least the ocean  
4 discharge criteria is followed, and is respected.  
5 And that would require each pollutant discharged  
6 to be evaluated under each criteria, and that  
7 just did not happen here for any of these  
8 pollutants.

9 For antibiotics, for phosphorus,  
10 nitrogen, for escaped fish, for pathogens, that  
11 didn't happen here. And so we are just wanting  
12 the agency to consider each of these factors in  
13 the decision documents, and base their decision  
14 to permit this facility on that, which is what is  
15 required by the plain language of the Clean Water  
16 Act, and the plain language of the agency's  
17 regulations.

18 JUDGE LYNCH: But so how do they  
19 address the threat to human health under your  
20 standard, that there's a threat no matter how  
21 unreasonable, or significant it would be?

22 MS. STEVENSON: Well, the agency just

1 provides conflicting information. And so in this  
2 context, antibiotics, antibiotic resistant  
3 pathogens, the agency states in its environmental  
4 assessment that it isn't a concern to human  
5 health. And then again states in its ocean  
6 discharge criteria evaluation, and environmental  
7 assessment that antibiotic resistant pathogens  
8 can form, and have formed in the past near these  
9 facilities. And then just completely --

10 JUDGE LYNCH: These facilities in  
11 other areas?

12 MS. STEVENSON: Yeah, these facilities  
13 in other areas.

14 JUDGE LYNCH: Yeah.

15 MS. STEVENSON: Similar facilities,  
16 concentrated aquatic animal production facilities  
17 for thousands of fish, and then the agency just  
18 dismisses it based on unsubstantiated mitigation  
19 measures. And then --

20 JUDGE LYNCH: And then a question on  
21 your concern about precedent. I mean are you  
22 thinking that at the time of permit renewal for

1 this permit, that there would not be an updated  
2 ODC evaluation, or --

3 MS. STEVENSON: Well, there would need  
4 to be an updated ODC evaluation yes, if the  
5 permit were reissued, yes.

6 (Simultaneous speaking.)

7 JUDGE LYNCH: And under -- go ahead.

8 JUDGE STEIN: Go ahead.

9 JUDGE LYNCH: Just one more question,  
10 in your comments, and in your petition, you say  
11 you think NOAA has a conflict of interest in this  
12 whole area, and you're pretty strong about that,  
13 particularly in your comments, and also in your  
14 petition. Given that, and given that NOAA was  
15 involved in this permitting, they were involved  
16 in the NEPA analysis, they were involved in the  
17 EIS, they provided other advice.

18 What should the Board do with that  
19 information? Should we just discount NOAA's  
20 opinions as they impact this facility, or how do  
21 we factor in your position on that?

22 MS. STEVENSON: Are you referring to

1 our position that NOAA has no authority over --

2 JUDGE LYNCH: No, that NOAA has a  
3 conflict of interest, because on the one hand  
4 they're promoting these aquaculture facilities, I  
5 mean aquaculture in general.

6 MS. STEVENSON: I would say that  
7 doesn't need to be factored in. I would state  
8 this Board should just look to the three decision  
9 documents, the biological evaluation, the  
10 environmental assessment, and the ocean discharge  
11 criteria evaluation, and that's enough. Because  
12 as we've discussed in our documents, none of  
13 those are sufficient.

14 Those overlooked impacts, they did not  
15 adequately assess other impacts. They were  
16 completely, and unsubstantiated mitigation  
17 measures. And that's moving onto another point  
18 that we wanted to make, under the ocean discharge  
19 criteria evaluation, the agency almost entirely  
20 relies on best management practices plans as  
21 required under the NPDES permit, but none of  
22 those plans have been established yet.

1           So, the agency is allowing the  
2           permittee, Ocean Era, Inc., to establish those  
3           plans, and carry them out. But that has not  
4           happened yet. So, how can the agency make its  
5           decision that there would be no unreasonable  
6           degradation based on these ten factors, and based  
7           on something that doesn't exist yet? And while  
8           the requirements for those best management  
9           practices planned are very cursory, very vague,  
10          they will need that permittee to carry those out.

11                 For example, some of those things will  
12          be -- for example, for feed, for the  
13          administering of feed, the permittee must quote  
14          employ efficient feed management, and feeding  
15          strategies in the feed output, and that's it.  
16          And then it gives a few examples of more detailed  
17          things that the agency could do, that they may  
18          do. I believe my time is up.

19                 If there are no further questions, we  
20          would just ask that this Board invalidate the  
21          permit, and annul it to the agency to fix the  
22          deficiencies.

1                   JUDGE STEIN: Okay, thank you. Mr.  
2 Schwartz? Just as we did with the Center for  
3 Food Safety, we will -- we've added an extra 13  
4 minutes to the region's time here.

5                   MR. SCHWARTZ: Thank you. May it  
6 please the Board, my name is Paul Schwartz, and I  
7 represent EPA Region 4 in this matter. The  
8 petitioners raised a number of issues under the  
9 Clean Water Act, the Endangered Species Act, and  
10 also NEPA, and the Marine Mammal Protection Act.  
11 I was planning to address in that order, starting  
12 with the Clean Water Act, and the Endangered  
13 Species Act if there's time --

14                   JUDGE STEIN: Can you speak up a  
15 little please?

16                   MR. SCHWARTZ: Pardon me?

17                   JUDGE STEIN: Speak up a little if you  
18 can please.

19                   MR. SCHWARTZ: Okay. I'll start with  
20 the Clean Water Act issues, and then the  
21 Endangered Species Act. If there's time, I can  
22 also address NEPA, and the Marine Mammals



1 Protection Act, or if the Board has questions  
2 about those issues.

3 JUDGE STEIN: Let me just tell you I  
4 do have some questions about the Clean Water Act,  
5 and if you want to just take a couple minutes to  
6 give an overview, but I do have some questions  
7 I'd like to ask on that.

8 MR. SCHWARTZ: Yes, well I wasn't  
9 planning to go into the ongoing statutory  
10 framework with standard of review, I think the  
11 Board is well versed, and there's already been  
12 enough discussion about those issues. I wanted  
13 to mention one issue that the Board has already  
14 asked questions about, and that is whether the  
15 ocean discharge criteria evaluation is the only  
16 place that the Board can look for finding that  
17 the agency's finding of no unreasonable  
18 degradation is adequately supported.

19 And the answer is no. The ocean  
20 discharge criteria evaluation is not a document  
21 that is a mandatory formal document that's  
22 required under either the statute, or the

1 regulations. The statute, and regulations  
2 require a determination. The determination can  
3 be based on anything in the record, and in fact  
4 many issues that were raised during the comment  
5 period are vague, more fully in the response to  
6 comments.

7 So, the region's position is that the  
8 whole record can be drawn from as a basis for  
9 supporting the ultimate determination that there  
10 would be no unreasonable degradation.

11 JUDGE STEIN: Thank you. So, the  
12 final paragraph of the ocean discharge criteria  
13 evaluation, page 48, states that EPA finds that  
14 no unreasonable degradation will likely occur as  
15 a result of the discharges from this project. Is  
16 that the same thing as determining that  
17 discharges from the facility will not cause  
18 unreasonable degradation as required by 125.22,  
19 and 123?

20 And I ask that question in particular  
21 because that same language that appears on page  
22 48 was found in the response to comments at page

1 23, and is found in both of the region's briefs.  
2 So, I want to understand how the will not likely  
3 occur language complies with the regulatory  
4 requirement to will not cause.

5 MR. SCHWARTZ: I would characterize  
6 that your honor, as an inartful characterization  
7 of the finding, what EPA did was make an  
8 affirmative finding that the discharge would not  
9 cause unreasonable degradation. To the extent  
10 any place in the record uses that not likely  
11 clause, that is just a relic of inartful  
12 characterization drafting.

13 JUDGE STEIN: Well, I understand your  
14 characterizing it as inartful, and I appreciate  
15 the candor that it's not the same as the  
16 regulatory standard, but what I'm grappling with  
17 is that's the final line in the -- if I recall,  
18 on page 38 of the ocean discharge criteria  
19 evaluation, and it is something that the region  
20 has cited several times since then.

21 And if we were to find that the  
22 language is not consistent with the standard, how

1 can we square that language, and why would that  
2 not be inconsistent, the use of inconsistent  
3 language, which this Board has the history of  
4 remanding -- if we were to find it were  
5 inconsistent, the Board typically remands the  
6 determination to eliminate the inconsistency.  
7 So, why is that not inconsistent?

8 MR. SCHWARTZ: I would direct the  
9 Board to the actual analysis of the various  
10 issues of concern linked by the discharge of  
11 pollutants. Which employs language such as  
12 insignificant, barely, inconsequential, or barely  
13 discernible in terms of the amount of pollutants  
14 that would be found immediately adjacent to the  
15 net pen. So, I think just the substantive  
16 analysis of each of the potential impacts brings  
17 you to a place where if you look at the  
18 definition of unreasonable degradation in the  
19 ocean discharge criteria, it's inescapable that  
20 the definition of unreasonable degradation will  
21 not be met.

22 JUDGE STEIN: So, you have the generic

1 standard of will not cause, and I think we asked  
2 several of the other counsel how you square the  
3 language at the beginning with the ten factors.  
4 And there's different language at the beginning  
5 than there is in each of the ten factors. So,  
6 how does that all come together? I mean you're  
7 not disputing that the region has to consider  
8 each of the ten factors, is that correct?

9 MR. SCHWARTZ: That's correct.

10 JUDGE STEIN: And you're not disputing  
11 that the region needs to consider each of the ten  
12 factors as to all of the pollutants?

13 MR. SCHWARTZ: Well, I think the  
14 consideration of each of the ten factors can be  
15 done in a general way. I think there's a  
16 question of perhaps relevance when you look at a  
17 pollutant by pollutant basis. There could be an  
18 absence of a need to go into detail with respect  
19 to a particular factor.

20 JUDGE STEIN: Is it the Board's  
21 obligation, or the public's obligation to parse  
22 through all of these documents to figure out what

1 the region is trying to say in a transparent way?  
2 I mean it's clear that the -- it appears clear  
3 that the legal standard is one of will not cause  
4 unreasonable degradation. And it's clear that  
5 there needs to be a factor by factor analysis,  
6 although I understand there is a dispute as to  
7 what that applies to.

8 But where should the Board, or the  
9 public go to to find a factor by factor analysis  
10 for each of the pollutants? I mean there are ten  
11 factors when you go through EPA's regulations.  
12 So, perhaps you can give us your thoughts on that  
13 question.

14 MR. SCHWARTZ: Well, chapter nine of  
15 the ocean discharge criteria evaluation does have  
16 a discussion of each factor. It's not done on a  
17 pollutant by pollutant basis, and I don't know  
18 what in the ocean discharge criteria specifies  
19 that upon each factor you have to break it down  
20 for each pollutant that's potentially going to be  
21 discharged.

22 For example, if we can say generally

1 the facility is small, and has a pollutant  
2 discharge that will not even be measurable for a  
3 distance from the facility, do we then have to  
4 break that down for each, for copper for example,  
5 for phosphorous, for nitrogen, all those  
6 pollutants are not going to be measurable a short  
7 distance from the facility.

8 So, I think to have to then repeat the  
9 same statement for each individual pollutant when  
10 you have generally listed, and have some  
11 discussion of each factor.

12 JUDGE STEIN: And what do you say with  
13 respect to the argument that for fish escapes,  
14 for example, that there has been an insufficient  
15 analysis of the factors? I mean there has been  
16 some discussion in the record with respect to  
17 fish escapes.

18 MR. SCHWARTZ: There is a number of  
19 places in the record where fish escapes are  
20 discussed very specifically. And the first thing  
21 that we mention is that there's no potential  
22 genetic impact. The fish involved are native to

1 the Gulf, they're raised, the fingerlings are  
2 from first generation wild fish caught from the  
3 Gulf. There is low probability of escapes, and  
4 the reason is mentioned in multiple places in the  
5 record.

6 The cage is made out of a strong  
7 copper mesh, which is unlikely to fail. And the  
8 design of the facility provides for submersion of  
9 the net pen below the surface during storms to  
10 mitigate the impact of strong storm currents.

11 It's also, we discuss that it's not comparable in  
12 risk to that presented at a large scale facility,  
13 where the number of fish that may potentially  
14 pose a risk if they escaped is a factor in how  
15 you analyze the risk.

16 It's not the risk of escape which we  
17 say is unlikely, but also the number of fish  
18 which could potentially escape.

19 JUDGE STEIN: So, I get that there are  
20 fewer fish here, this is a demo project, it's  
21 small scale, I've read all that. But you're  
22 still talking about 80000 pounds I think, of



1 fish, over a year to a year, and a half. And if  
2 I understand the record correctly, the region I  
3 believe has admitted, and correct me if I'm  
4 wrong, that there will be -- there may be mammals  
5 that are attracted to the area, there may be  
6 other fish.

7 If you look at the Hawaii data from  
8 the same company, they were advertising tours for  
9 people to come out, and see their facility,  
10 doesn't that all increase the risk here?

11 MR. SCHWARTZ: So, I guess we're  
12 moving away from the escaped fish issue, and  
13 there was some other information that I would  
14 have provided.

15 JUDGE STEIN: Go ahead, please  
16 proceed.

17 MR. SCHWARTZ: There's also a facility  
18 damage prevention, and control plan, which has  
19 detailed requirements prudent to both prevent  
20 that risk, and also respond to it --

21 JUDGE AVILA: Can I ask you about --  
22 I'm sorry to interrupt, but can I ask you about

1 that? Because Friends of the Animals say that  
2 your reliance on that as a means to prevent fish  
3 escapes is not right, because there's no plan  
4 currently in existence, and you don't create it,  
5 the region doesn't create it to ensure there's  
6 unreasonable degradation, and the permittee  
7 develops, and implements the plan itself.

8 So, I take their position to be that  
9 you're relying on this future undisclosed plan in  
10 your ocean discharge determination that doesn't  
11 square with the statutory requirement that you  
12 have sufficient information before you issue the  
13 permit. So, I was wondering what your response  
14 to that was, and how exactly development of the  
15 FDCP will work.

16 MR. SCHWARTZ: Well, the permit does  
17 not just simply say you must develop a facility  
18 damage prevention, and control plan. There are  
19 detailed requirements within the permit, the  
20 minimum contents of that plan. There's a  
21 requirement to operate, and maintain the  
22 facility, and the same, there's mooring lines,

1 and compliant structures. There's an obligation  
2 to provide an analysis of all potential risks of  
3 anticipated disaster, maintain all facility  
4 components, prevent, control, and minimize each  
5 disaster type.

6 There are maintenance schedules  
7 required, a reporting system to alert appropriate  
8 authorities in the event of any escape, or  
9 disaster. Written certification that all  
10 facility have been trained on the plan contents,  
11 and those are prevention issues. There's also  
12 disaster response. Where the company is required  
13 to undertake actions to limit, and prevent any  
14 impacts from the release of commercial aquatic  
15 life.

16 Including procedures for notification,  
17 commencing response, and cleanup, disposal of  
18 dead fish, and facility debris, and certification  
19 again that all staff have been trained on that.

20 I want to mention one thing about the  
21 petitioner's cite an escape event in Hawaii  
22 involving the Velella Gamma Facility, an earlier

1 facility by the same applicant in Hawaii.

2 And the implication is that that was  
3 a substantial release. There's information about  
4 that in the record in connection with the  
5 environmental assessment for the Velella Delta  
6 Facility, and the details of that escape, it was  
7 not a catastrophic failure of the facility, it  
8 was a failure at the entrance port. Where  
9 facility staff enter for various production  
10 duties during the operation of the facility.

11 Approximately 1000 fish escaped, 650  
12 of which were immediately recaptured, leaving  
13 only 350 loose. And in response to that, as  
14 described in that environmental assessment, the  
15 applicant revised their design to change the  
16 entrance portal from the side, to the top. So  
17 that entrance to the facility happens only at the  
18 top when the net pen is raised above the water  
19 surface, which minimizes the potential kind of  
20 escape occurring.

21 So, presumably, we don't have the plan  
22 yet, but the design of this facility already

1 incorporates that design. So, the chance of  
2 catastrophic failure I think has been  
3 appropriately determined to be very low because  
4 of the construction of the facility, the ability  
5 to submerge it during storms. It also has a GPS  
6 -- there's required to be a GPS device attached  
7 to it, so that if it did get shaken loose from  
8 its moorings, it could be traced, and captured to  
9 recover any debris from the net pen.

10 So, I think it's more than just the  
11 concept that they have to do facility damage  
12 control, and prevention, but there are detailed  
13 requirements in that, and the nature of the  
14 design is also important. In connection with the  
15 Puget Sound release that the petitioners  
16 mentioned in their argument, there were 263000  
17 fish released in that event.

18 But the cause was determined to be  
19 excessive fouling of the cage. And that created  
20 much more drag, so that even though it was  
21 designed to withstand certain storms, it failed  
22 during the designed storms because of the fouling

1 creating extra drag. Well, this cage is designed  
2 with strong cover material which prevents  
3 fouling, or minimizes it.

4 And it's only going to be installed  
5 for one production site, so the likelihood of  
6 corrosion, and wearing down of this structure  
7 where it could result in a catastrophic failure  
8 is more unlikely.

9 JUDGE STEIN: Doesn't this point out,  
10 and I appreciate your pointing out the magnitude  
11 of the releases, and clarifying that for us, and  
12 the improvements that they made, but doesn't that  
13 point out as a number of incidents that have  
14 happened around the world that -- you know,  
15 accidents happen, things that you hope will not  
16 happen, do happen.

17 And how do you respond to the concerns  
18 that the petitioners have raised that this is the  
19 first time in the Gulf of Mexico that this time  
20 of aquaculture has been permitted, and that in  
21 the absence of state criteria that we would have  
22 if it was closer to shore, that there aren't

1 sufficient safeguards for the facility?

2 MR. SCHWARTZ: Well, I would say there  
3 has been one prior permit in the Gulf of Mexico  
4 for a facility that never was constructed, that  
5 was a commercial scale facility, so it was much  
6 larger. But in response to the safeguards, I know  
7 the authority to permit aquaculture has always  
8 existed under the Clean Water Act, and that it  
9 involved the discharge of a pollutant into the  
10 waters of the United States.

11 There have been effluent limitation  
12 guidelines in place for upwards of 20 years, or  
13 close to 20 years. So, the contemplation that  
14 these facilities would exist has always been  
15 there. Whether we can guarantee that no disaster  
16 would occur, I guess that's beyond the scope of  
17 the curtain, the ability of any permit, or any  
18 agency. There is no guarantee that a permittee  
19 will comply with its permit.

20 We have to assume that they will  
21 comply. So, what we can do in a permit is create  
22 conditions that minimize the risks, and diminish

1 the likelihood that any of the harms that raise  
2 concerns about aquaculture will occur. And this  
3 permit successfully does that. And I want to  
4 emphasize again, the minimal size of this  
5 facility.

6 80000 pounds of fish, it's 20000 fish,  
7 may seem like a lot, but this net pen is -- the  
8 total size is 17 meters wide, and 7 meters wide.  
9 It's the size of a generally a two story home  
10 perhaps. Where a single Sperm Whale, which is  
11 the most plentiful whale in the Gulf of Mexico,  
12 and the water body, it is over 600000 square  
13 miles, and has water flowing through it at a rate  
14 of 350 million gallons a day.

15 So, the amount of dilution, even the  
16 scale of this facility with native fish, I don't  
17 see that the petitioners have really articulated  
18 a potential for unreasonable degradation through  
19 the concerns that they have raised. Their  
20 petition, and in particular the Center for Food  
21 Safety petition, there really wasn't an adequate  
22 response -- their response to comments was not



1       adequately addressed in this.

2                       Especially this issue about the  
3       minimal nature of the potential discharge in the  
4       vast size of the receiving water, and its  
5       current. I --

6                       JUDGE STEIN: Isn't it the region's  
7       obligation in the first instance to, with the  
8       information submitted by the applicant, and  
9       whatever additional information the EPA wants, to  
10      do an evaluation, and an evaluation that  
11      considers all ten factors? And I am not  
12      convinced -- you described how you did that in a  
13      general way, is it Region 4's position that all  
14      ten factors were considered with respect to fish  
15      escapes?

16                      MR. SCHWARTZ: Yes, our position is  
17      that all ten factors were considered. As I  
18      mentioned, chapter nine has a factor by factor  
19      discussion. It's not incredibly detailed, but  
20      immediately after that, there's a reference to  
21      determination also being supported by the  
22      administrative record, and other information in

1 the record. And it's a thorough administrative  
2 record.

3 I think knowing the agency in this  
4 case made extensive efforts to develop a thorough  
5 record that analyzes all of the potential  
6 threats, and concerns raised by the petitioners,  
7 and that were posed by this facility, the ocean  
8 discharge criteria evaluation is lacking but the  
9 EA and the biological evaluation are also  
10 extensive.

11 And the agency, one of the reasons  
12 cited by the petitioners that this would be the  
13 first operating aquaculture facility in the Gulf  
14 is why the agency voluntarily conducted a NEPA  
15 analysis, even though NEPA clearly does not apply  
16 to this matter. The idea was to create a fully  
17 informed record, and thoroughly explore the  
18 potential risks posed by an aquaculture facility  
19 in the Gulf.

20 JUDGE STEIN: I'm not suggesting that  
21 the Region hasn't done a tremendous amount of  
22 work, and analysis for it. I don't think that's

1 the nature of the question. When I read chapter  
2 nine, I didn't see a discussion of fish escapes,  
3 it may be there, and I can look after the  
4 argument, but in order to effectively challenge  
5 the ocean discharge evaluation, now to me --

6 MR. SCHWARTZ: I hate to interrupt,  
7 but I meant chapter ten, that's where all the  
8 factors are discussed.

9 JUDGE STEIN: Okay, thank you. But  
10 the meat of the analysis is in the factors. And  
11 so if all of the factors are lumped together for  
12 a number of the pollutants, if the region's  
13 analysis on that point is not committed to  
14 writing, it becomes difficult for a judge to see  
15 actually whether something was considered, and if  
16 so, where. And I don't think the suggestion is  
17 being made that something is really not an issue.

18 The Region needs to spend time on it,  
19 but there clearly are things that have been  
20 raised by petitioners here with regard to fish  
21 attracting devices, with regard to whether  
22 there's enough information, and I don't disagree

1 that there's extensive documentation here, but I  
2 am not seeing the factor by factor analysis as to  
3 all of the pollutants.

4 MR. SCHWARTZ: Excuse me, I would add  
5 that the prior nine chapters do, the chapters are  
6 totaled based on the factors. Each chapter  
7 addresses a particular factor. Now, there's  
8 extensive background information in each chapter  
9 about the potential risks of aquaculture in the  
10 Gulf. So, the summation, the determination is  
11 documented in chapter ten, where we describe the  
12 determination with respect to each factor.

13 But each one of those chapters, if you  
14 look at their headings, their subject matter  
15 corresponds to the ODC factors.

16 JUDGE AVILA: Which of the ten ODCE  
17 factors is fish escapes relevant to?

18 MR. SCHWARTZ: That's a good question,  
19 because with the lack of -- I would say the  
20 petitioners have to strain to tie the fish escape  
21 to any particular harm under any of the factors.  
22 I think in the Endangered Species Act they talk

1 about competition for habitat, and feeding, or  
2 breeding grounds, but there's no explanation of  
3 why a native fish to the Gulf, even at a number  
4 of 20000 in a water body of this size, what  
5 factor does it result in any unreasonable  
6 degradation? I think it's a strain --

7 JUDGE STEIN: Sorry, I didn't hear  
8 your last sentence, could you repeat that?

9 MR. SCHWARTZ: I think it's a strain  
10 to take the fish escapes, given the size of this  
11 facility, and the fact that there's no genetic  
12 harm, to relate it to harm to either aquatic  
13 life, to water quality, to the ecosystem. The  
14 impacts really are hard to connect. So, I think  
15 similarly, it's the same with a lot of the  
16 claims, to take each of the pollutants, and tie  
17 them not just to these factors, but then to a  
18 level of harm that meets the definition of  
19 unreasonable degradation, given the size of the  
20 facility is very difficult.

21 JUDGE AVILA: I'm going to ask a  
22 really stupid question, but is a fish escape a

1 discharge within the meaning of the 125.122?

2 MR. SCHWARTZ: I believe a fish  
3 escape, because the definition of pollutant  
4 includes biological material, certainly a live  
5 fish would be identical to many of the fish that  
6 will already be in the Gulf, so the potential  
7 impact is hard to define. But biological  
8 material is included as a pollutant, and this is  
9 a cultured fish, it's not wild. So, I don't  
10 think I quarrel with the concept that the escaped  
11 fish is a pollutant.

12 JUDGE AVILA: Can I ask one more --

13 JUDGE STEIN: Can pharmaceuticals also  
14 be -- I'm sorry Judge Avila, go ahead.

15 JUDGE AVILA: No, go ahead.

16 MR. SCHWARTZ: With respect to  
17 pharmaceuticals, the pharmaceuticals that are  
18 taken up by the fish, that are used to actually  
19 treat disease, are not a pollutant. That's  
20 regulated by the FDA, that's an intended use of  
21 the product. So, the total scope of the  
22 pollutant discharge is similar to the way

1 pesticides are analyzed. That's not used, and  
2 taken up by the intended target, but is released  
3 from the net pen into the receiving waters.

4 There's a lot of discussion in the  
5 record about, first of all, the unlikelihood that  
6 antibiotics will be needed in this case. The  
7 operators do not intend to use them, they will  
8 not be used indiscriminately as some livestock  
9 operations use to promote growth, or to prevent  
10 disease, they will be used to treat disease if it  
11 occurs. And disease is unlikely for the reasons  
12 described in the record about how pathogens will  
13 be controlled.

14 First of all, the fish that are  
15 stocked will be certified by a veterinarian as  
16 healthy, and there are pathogen management  
17 requirements including regular inspection, and  
18 the location, and environment of the net pen,  
19 with low fish culture density, and the strong  
20 current in the Gulf, which is going to be  
21 continually flushing through a continually moving  
22 net pen, will greatly diminish the potential for

1 disease to occur.

2           So, I think we're talking about very  
3 small, occasional use, if at all. That will be  
4 at nonmeasurable levels. I think there was a  
5 study described in the EA where someone  
6 projected, or estimated the concentrations of an  
7 antibiotic in use at a freshwater fish  
8 aquaculture operation, and estimated it at 1 in  
9 50 million, and that even assumes that none of  
10 the antibiotic was taken up by the intended  
11 target.

12           That is likely to be even much lower  
13 in this case, where the pollutants that are going  
14 to be discharged at higher levels will not be  
15 detectable even in the effluent one meter from  
16 the cage, and certainly at the five meter  
17 distance, where we are going to be measuring  
18 water quality impacts. And with respect to  
19 antibiotics, I'd like to focus on one other  
20 thing.

21           It seems like the main thrust of the  
22 petitioner's arguments about the threat posed



1 relates to the human health impact of antibiotic  
2 resistance. And they focus just on the factor,  
3 the ocean discharge criteria factor, but the  
4 definition of unreasonable degradation with  
5 regard to human health says as a result of direct  
6 contact with pollutants, which I don't see how  
7 that's going to happen in any significant way  
8 here.

9 Or consumption of aquatic organisms  
10 that consume the pollutant. And the attenuation  
11 of that threat to human health is just to a  
12 degree that is not realistic. How human health  
13 is going to be impacted by consumption of fish  
14 who come into contact, or consume this pollutant,  
15 which will be barely detectable where it's  
16 placed, and almost immediately diluted to  
17 nondetectable very close to the cage, and only  
18 occasionally used. So, I just think --

19 JUDGE STEIN: So, if you have  
20 antibiotics that in fact are used, because  
21 there's no prohibition on using antibiotics --

22 MR. SCHWARTZ: There's no prohibition,

1 that's correct. But it is subject to  
2 veterinarian oversight, so it will be used in  
3 accordance with the need.

4 JUDGE STEIN: Right. So assuming  
5 there is a need, and there's antibiotics that are  
6 used, and then there's a fish escape, can any of  
7 those fish interact with other fish that would be  
8 attracted to the area? I'm just trying to  
9 understand if things happen not according to  
10 plan, is there a risk to human health here, or  
11 not?

12 MR. SCHWARTZ: So, even a fish that  
13 escapes, there's nothing that prevents them from  
14 interacting with other fish in the environment,  
15 to the extent this relates to the antibiotic  
16 risk, I would again say that that's a very, very  
17 low risk that does not rise to the level of  
18 unreasonable degradation. I'm not sure if we're  
19 still talking about human health, or not, from  
20 consuming those fish, or just risk to the fish  
21 population. I ---

22 (Simultaneous speaking.)

1                   JUDGE STEIN: I do have a question  
2 with regard to nutrients. Must there be evidence  
3 of a direct connection between the nutrients from  
4 the fish farms, and the occurrence of red tides  
5 to determine that a discharge may cause  
6 unreasonable degradation?

7                   MR. SCHWARTZ: I'm not entirely clear,  
8 must there be a connection between the discharge,  
9 and red tide for there to be unreasonable  
10 degradation?

11                  JUDGE STEIN: Between the nutrients  
12 from the fish farms and the occurrence of red  
13 tides, to determine that a discharge may cause  
14 unreasonable degradation. We talked to some of  
15 the other petitioners a little bit about this,  
16 and I just wanted the Region's stance on this  
17 topic.

18                  MR. SCHWARTZ: I think that to the  
19 extent there was a connection between a discharge  
20 from this facility, and the occurrence of a red  
21 tide, that could present unreasonable  
22 degradation. The problem with that concern is

1 that there's no realistic possibility that that  
2 will happen. And we don't deny that nutrients --  
3 and I think there's been some discussion about  
4 developing scientific information about the  
5 relationship between some aquaculture facilities,  
6 and hazardous algal blooms.

7 And I don't think there's any question  
8 that nutrients can be a food source, or to  
9 contribute to the growth of a hazardous algal  
10 bloom, but the reason it's not a concern here is  
11 because of the small amount of that pollutant.  
12 Nutrient discharge, is again not going to be  
13 detectable a very short distance from the  
14 facility. The level of --

15 JUDGE STEIN: Some of these things  
16 kind of interact, if one of these endangered  
17 whales does come to this area, and the blooms  
18 from the effluent, could start 40 miles off,  
19 could some of this get to an area that you didn't  
20 think it should have gotten to?

21 MR. SCHWARTZ: I think the relative  
22 contribution of nutrients to a hazardous algal

1 blooms, whether that's starting nearby, or  
2 reaching the shore is not going to be significant  
3 enough. The incremental impact of this level of  
4 pollution is not going to be a contributing  
5 factor, and that's not just in the Region's  
6 analysis in the modeling, but also as you raised  
7 a concern about whales, in NMFS's concurring  
8 opinion.

9           And there -- in terms of the concern  
10 about whales, I would just -- as the Board noted,  
11 that NMFS downgraded the agency's NOAA  
12 determination, not likely to adversely affect, to  
13 one of no effect for all whale species. There is  
14 no whale species according to NMFS that will be  
15 found in the action area, or close enough to it  
16 to be impacted by this facility. There would be  
17 no route of exposure.

18           JUDGE STEIN: Part of my concern about  
19 the NMFS letter is whether, or not NMFS had an  
20 evaluation from EPA as to the potential for this  
21 facility to serve as a fish attracting device.  
22 And if they did not, would that have influenced

1 their conclusion? Perhaps, I did not see the  
2 materials that EPA gave to NMFS information about  
3 the potential of this facility to serve as a fish  
4 attracting device.

5 It may have been in the record, I did  
6 not recall seeing it. But part of my concern is  
7 not that NMFS does not have considerable  
8 expertise, but whether there was information that  
9 would have been important for them to know for  
10 purposes of reaching their conclusion, since  
11 their determination was reached in 2019, long  
12 before the public comment period, at which some  
13 of these issues were raised.

14 MR. SCHWARTZ: Well, in the biological  
15 evaluation on page 24, and 25, the EPA did  
16 acknowledge that commercial, and recreational  
17 fishermen are expected to visit this project  
18 because it could act as a fish attraction device.  
19 And one of the notes was that while fish could be  
20 attracted, fishermen could be attracted, they  
21 would be displaced from other locations where the  
22 vessel strike risk would similarly be presented,

1 so there's not an overall increase.

2           And that secondarily, NMFS discussed  
3 in our biological evaluation, and our  
4 environmental assessment, also noted the distance  
5 from the shore of this facility, 45 miles,  
6 meaning that the amount of vessel traffic would  
7 not be substantial. Recreational fishermen,  
8 charter fishermen, that's a significant haul to  
9 take a boat to go fishing 45 miles from a  
10 facility.

11           You mentioned earlier about the  
12 applicant for this permit bragging about the  
13 attraction, this type of operation to fishermen,  
14 and how it was so popular in Hawaii, but that  
15 facility was five, and a half miles from shore.  
16 NMFS also noted that in terms of increased vessel  
17 traffic, it would require a moderately sized  
18 marina, for example 200 new vessels introduced to  
19 an area to potentially result in a sea turtle  
20 strike in any single year.

21           The conservative mean estimate of a  
22 sea turtle strike is every 193 years per vessel.

1 So, the amount of prep that heading out 45 miles  
2 to catch some fish around this facility, and  
3 they're going to have to approach it at a very  
4 slow speed, indicate that this risk is  
5 appropriately determined by NMFS to be an  
6 extremely unlikely risk. The risk of --

7 JUDGE LYNCH: NMFS have -- sorry,  
8 counsel did NMFS have a copy of the BE, or were  
9 they involved in developing the BE?

10 MR. SCHWARTZ: The BE is provided to  
11 NMFS, along with the request for concurrence for  
12 them to review, and so they did have access to  
13 that information.

14 JUDGE STEIN: So now --

15 (Simultaneous speaking.)

16 JUDGE LYNCH: And have they been able  
17 to comment on the permit? To draft comment?

18 MR. SCHWARTZ: There's no reason why  
19 they couldn't. They were certainly provided a  
20 copy of the draft, it's normal operating  
21 procedure, and perhaps even required to copy the  
22 resource agencies with the draft permit. We did



1 not receive any comments outside the scope of the  
2 consultation.

3 JUDGE LYNCH: And did they ask for any  
4 additional information?

5 MR. SCHWARTZ: They did not ask for  
6 additional information that I am aware of, nor  
7 did they specify any additional protective  
8 requirements beyond what was contained in the  
9 permit.

10 JUDGE AVILA: Can I ask kind of a  
11 housekeeping question? When we're looking at the  
12 Petitioner's ESA's claim, which biological  
13 evaluation or assessment should I be looking at?  
14 There's a draft August 2019 version that was  
15 submitted it seems to the consulting agencies.  
16 And then there's a final September 2020 one.  
17 What -- which one is the one that I should be  
18 looking at for purposes of the ESA claims?

19 MR. SCHWARTZ: Well they're both  
20 contained in the record, so I suppose they're  
21 both part of the record for those claims. The  
22 final biological evaluation was provided to them.

1 I'd like to -- I have a permit writer  
2 in the conference room I don't want to say that  
3 without certainty so I'm going to ask him if  
4 that's okay with the Board?

5 There was even I think a follow-up  
6 question as to whether any variations in  
7 information would result in the change in your  
8 opinion.

9 JUDGE AVILA: Okay.

10 MR. SCHWARTZ: So the permit writer  
11 tells me that they commented on the draft  
12 biological evaluation, not the final, but that  
13 there are very minor changes between the two that  
14 were provided to NMFS afterwards.

15 JUDGE AVILA: So when they gave their  
16 concerns they had concurrence they had the draft,  
17 and then there's this final one.

18 And that was going to be my next  
19 question, whether there were any substantive  
20 changes from the draft to the final -- and I  
21 think I don't want to put words in your mouth,  
22 but I think your answer was, or you just said

1 that the permit writer suggests that there  
2 weren't substantive changes?

3 MR. SCHWARTZ: Very minor technical  
4 changes.

5 JUDGE AVILA: Okay.

6 JUDGE LYNCH: I had a question about  
7 what happens at the end of the 18-month  
8 demonstration project. I understand that the  
9 discharges allow for 12 months, but then there's  
10 going to be an additional period of time while  
11 the can or cage is still there.

12 But what happens -- because the permit  
13 term itself is for five years, it ends in 2025.  
14 Tell me what happens at the end of the 18-month  
15 period?

16 MR. SCHWARTZ: Well it's not a permit  
17 requirement but the permit writer has represented  
18 that they will remove the structure after the  
19 one-year production, the installation and removal  
20 of that structure is well-within the jurisdiction  
21 of the Corps of Engineers' Rivers and Harbor Act  
22 permit. And so any requirements for removal

1 would be contained in that permit.

2 But it's -- so we're totally just our  
3 understanding of their intention to remove it,  
4 that it's only a pilot scope project for -- and  
5 the permit does really authorize even though it's  
6 a five-year permit, it only authorizes discharge  
7 in connection in a single production year, single  
8 --

9 JUDGE LYNCH: But how does that work?  
10 So then what happens at the end of that?

11 (Simultaneous speaking.)

12 MR. SCHWARTZ: So at the end of the  
13 production cycle, there would be no more place --  
14 no more ability to place fish within that net  
15 pen. There would be no more production activity.

16 So to the extent they're -- the  
17 facility is still there and hasn't been removed,  
18 it will not have any active operations or fish or  
19 pollutants, with a possible exception of any  
20 ongoing leaching of copper from the net pen or  
21 other -- other type of leaching from other  
22 materials that are in there in the morning line

1 constructions.

2 JUDGE LYNCH: So if the permittee  
3 wanted to resume operation, what would they have  
4 to do? Would they have to apply for a permit  
5 renewal and permit?

6 MR. SCHWARTZ: They wouldn't have to  
7 -- I mean this permit has -- because it's  
8 analyzed as a single production cycle, it's  
9 conceivable that they could after five years  
10 apply for a renewal if they were interested in  
11 doing a single production cycle again of a pilot  
12 scale facility.

13 Anything beyond that would be a new  
14 permit for a different type of facility, and  
15 certainly any commercial scale operation would be  
16 a whole new permit that would be evaluated based  
17 on its impact, which would be quite different.

18 JUDGE LYNCH: Well if they just did a  
19 renewal, wouldn't you still have to do an updated  
20 ODC evaluation, and --

21 MR. SCHWARTZ: All of the permit  
22 processing requirements that applied to first

1 issuance would apply to the second. Then --

2 JUDGE LYNCH: And those conditions  
3 would have changed?

4 (Simultaneous speaking.)

5 MR. SCHWARTZ: There could be new  
6 conditions, and the information developed either  
7 in scientific literature about aquaculture, or  
8 with operation of this facility, could inform an  
9 increment decision-making in a subsequent cycle.

10 (Simultaneous speaking.)

11 JUDGE LYNCH: And in terms of the  
12 removal of the cage, the BE, which I understand  
13 the Corps was part of, it actually says that it  
14 would be moved removed, but you're saying that  
15 that technically would be up to the Corps. So  
16 you're not --

17 MR. SCHWARTZ: Those --

18 JUDGE LYNCH: -- representing actually  
19 what would happen with the cage --

20 MR. SCHWARTZ: Those --

21 JUDGE LYNCH: -- again?

22 (Simultaneous speaking.)

1 MR. SCHWARTZ: Those kind of  
2 requirements would be within the Corps'  
3 jurisdiction.

4 JUDGE LYNCH: Yes.

5 MR. SCHWARTZ: I don't think they're  
6 really within our --

7 JUDGE LYNCH: Yes.

8 MR. SCHWARTZ: -- authority in terms  
9 of regulating discharge rather than the --

10 JUDGE LYNCH: Yes.

11 MR. SCHWARTZ: -- installation of the  
12 facility.

13 (Simultaneous speaking.)

14 JUDGE STEIN: Has the Corps' permit  
15 been issued?

16 MR. SCHWARTZ: It has not been issued.

17 My understanding is they are awaiting their  
18 outcome of NMFS, especially in light of the fact  
19 that we share certain decision record documents.

20 JUDGE LYNCH: And that prior permit  
21 that you referenced, was that an EPA NPDES permit  
22 for -- federal waters for -- an aquaculture

1 facility in federal waters?

2 (Simultaneous speaking.)

3 MR. SCHWARTZ: That was in federal  
4 waters. The name of the facility was Biomarine.  
5 It actually was renewed for several permit  
6 cycles, and the permit team actually commenced  
7 activity to try and renew that.

8 But because of -- EPA substantially  
9 upgraded its scrutiny of aquaculture permits,  
10 there were a lot more application requirements  
11 that the applicant decided not to pursue.

12 JUDGE LYNCH: And what year was that  
13 approximately?

14 MR. SCHWARTZ: So that --

15 JUDGE LYNCH: What years --

16 MR. SCHWARTZ: -- permit cycle expired  
17 about two years ago. And --

18 JUDGE LYNCH: And where was --

19 MR. SCHWARTZ: -- and it is in the  
20 record. We -- we cited it in our brief really  
21 for the argument that any view that future  
22 aquaculture --- commercial aquaculture operations



1 will take place anywhere near the facility or be  
2 co-occurring with this facility are speculative,  
3 and the idea that this multiple permit cycle  
4 facility had its permit and it never operated.

5 (Simultaneous speaking.)

6 JUDGE LYNCH: And where was -- what  
7 was the location?

8 MR. SCHWARTZ: It was -- it was in the  
9 Gulf, I believe it was closer to Florida than any  
10 other state, but I can't specify in terms of --

11 JUDGE LYNCH: And was there --

12 MR. SCHWARTZ: -- what amount it had

13 --

14 JUDGE LYNCH: -- an OD -- yes. Was  
15 there an ODC evaluation associated with it?

16 (Simultaneous speaking.)

17 MR. SCHWARTZ: I don't have the --  
18 this -- any -- I don't have sufficient  
19 familiarity with the record. I assume there was,  
20 but it certainly would've been required.

21 JUDGE STEIN: Did the -- you  
22 referenced the Hawaii facility. Does the record

1 reflect the five miles that you were saying or  
2 referencing for the Hawaii facility?

3 MR. SCHWARTZ: Yes that is in the  
4 record for the Velella Gamma facility. There's  
5 information and I believe it's in the BA for the  
6 Velella Delta facility the Union describes that  
7 facility and its vision. And in the --

8 JUDGE LYNCH: Yes.

9 (Simultaneous speaking.)

10 (Telephonic interference.)

11 JUDGE STEIN: Am I also correct in  
12 understanding that there's data in this record  
13 and at least in the recreational and diving  
14 context, there are vessels that go 45 miles from  
15 shore. Am I correct in understanding that?

16 MR. SCHWARTZ: I believe there are  
17 recreational fishing, and I assume diving as well  
18 that would go. I don't know that this location  
19 would be attractive to a diver.

20 There's no hard-bottom habitat or  
21 reef, or the kind of biologically-productive area  
22 at the location of the facility. It was

1 specifically-sited to avoid those kinds of  
2 locations. Charter fishing operations, it would  
3 fall under the category of deep-sea fishing, and  
4 a charter --- I mean charters go away I believe  
5 in overnight, which might be the kind of charter  
6 that would be willing to travel this distance,  
7 because the need to go there and back would make  
8 it a much less attractive location to go for  
9 recreational fishing.

10 So I do believe that and we don't deny  
11 that there's a likelihood that there will be some  
12 vessel activity that's attracted, it just will be  
13 very light in number.

14 JUDGE STEIN: I want to ask another  
15 question about how some of the commenters on EA  
16 pointed to evidence I believe accumulating in  
17 Scotland especially in the last few years that  
18 increases in nutrients from offshore fisheries  
19 resulted in an increased risk of HABS, both in  
20 their frequency and geographic context. And I  
21 believe in response pointed to a 2013 NOAA study  
22 in the response to comments at 23 Note 23.

1           How is that NOAA study, given that it  
2 appears to predate the Scotland evidence, set  
3 within the framework of the best scientific and  
4 commercial data available that the ESA requires?

5           (Telephonic interference.)

6           MR. SCHWARTZ: I think that that study  
7 goes towards that substantial nutrient discharge  
8 that contributes or has resulted from coming from  
9 an agricultural facility, but it is just  
10 distinguishable from the facility at issue here.

11           As the response to comments discusses  
12 on page 22 to 24 when effects are found, the  
13 hydrological conditions in facility management  
14 practices are relevant, and siting farms in deep  
15 gulf fresh waters helps to disperse these  
16 nutrients and siting projects away from areas  
17 where effluent will be washed on shore helps to  
18 avoid eutrophication.

19           And so I think the concerns  
20 highlighted in that NOAA study, while we don't  
21 discount them, are just not carried forward into  
22 this facility within this location, its small

1 size, its short duration. They're a small size  
2 of -- they're a discharge, and the extensive  
3 current which you know, it's 350-million gallons  
4 a day results in such immediate dilution that  
5 modeling that was done by the Agency, and even  
6 double that production level showed  
7 non-discernible impacts from mere meters from  
8 this facility. And that --

9 JUDGE STEIN: And did you have any  
10 study that you have on the record more recent  
11 than 2013 that in some fashion respond -- I don't  
12 -- I couldn't find the Scotland study in the  
13 record. It may be there, but I didn't see it.

14 I saw references to it, so I don't  
15 have an actual date. But I was curious whether  
16 the region had put any evidence in the record  
17 that was more recent than the 2013 study to  
18 respond to the Scotland data?

19 (Telephonic interference.)

20 (Simultaneous speaking.)

21 MR. SCHWARTZ: I'm not certain, I  
22 would have to revisit the record myself to

1 confirm that. But I would again focus on the  
2 minimal nature of the discharge, especially as  
3 done with double the loading.

4 And again even in double the loading,  
5 it's also assumed that we are at full production  
6 current volume that the fish would already add 20  
7 -- that 80,000 pounds for the full duration of  
8 that modeling and then double that.

9 So if we do that and we find, as  
10 indicated many places in the record, that total  
11 nitrogen and total phosphorous may not be  
12 measurable even in the effluent one meter from  
13 the facility, that connecting that discharge to  
14 hazardous algal blooms reaching the shore of  
15 Florida is just too tenuous in, you know, the  
16 record basis for concluding that one would result  
17 in unreasonable degradation is overwhelmed.

18 (Simultaneous speaking.)

19 JUDGE STEIN: Is there enough  
20 information -- I know that there are many  
21 different species that can cause these blooms,  
22 and they're often not well-understood.

1           But can EPA really have sufficient  
2 information to reach that conclusion, which I  
3 mean I understand that EPA has said that it did.

4           But you know, there is a question that  
5 we talked about earlier about whether EPA was  
6 saying it didn't have information or it did.  
7 Given that you were talking about red tides,  
8 which is one of 70 species, were other species  
9 looked at as well?

10           MR. SCHWARTZ: Yeah, the discussion it  
11 relates generally to hazardous algal blooms, and  
12 red tide is the -- it is a focus because it was a  
13 big focus of the comments during the petition, as  
14 red tide has been a concern on the coast of  
15 Florida for a lot of commenters, and it's also a  
16 concern that the Agency takes very seriously.

17           Hazardous algal blooms, including red  
18 tide, are a very serious problem. And even in  
19 light of the low amount of the discharge, it's  
20 one of the reasons we modeled it at a very  
21 conservative way to double the production levels  
22 and run the modeling for five years.

1           It's an issue we wanted to be  
2 comfortable with as well, and not one that we  
3 discounted at all and that's why so much effort  
4 was really put into evaluating the risk and the  
5 potential that the nutrient discharge could have  
6 an impact on down current from the facility.

7           I mentioned, you know, the Petitioners  
8 -- one of the arguments under the ODCE was that  
9 we didn't have sufficient monitoring. They  
10 wanted to require monitoring for the -- I forget  
11 the scientific name of red tide, I want to say  
12 it's something brevis rather.

13           But we are monitoring for Chlorophyll  
14 A, which is an indicator of any algal activity.  
15 And they were concerned that we were only  
16 monitoring at the most distant in the water  
17 quality monitoring five meters from the facility.

18           But there's a very important reason  
19 why the monitoring is focused at that location,  
20 is when the modeling tells us that we're not  
21 going to be able to detect that pollutant, we  
22 wanted to place that monitoring where the impacts



1 would be discernible. So to stick -- to require  
2 monitoring for example close to shore isn't going  
3 to be able to determine any nutrient presence  
4 that's attributable to the facility.

5 I mean in fact if you go to the shore,  
6 any nutrients you find are likely going to be  
7 attributable to other human impacts such as, you  
8 know, agricultural runoff or PFEWs, or phosphate  
9 industry, stormwater, you know, there's certainly  
10 significant nutrient impacts that are nearer to  
11 shore and more significant in volume that do  
12 contribute to red tide, but -- and it's therefore  
13 an issue we really wanted to be careful about.

14 So the analysis was extensive, and the  
15 inability to connect this discharge, the proposed  
16 discharge, were the potential impact on red tide  
17 was a reason why there's a determination that  
18 there will be no unreasonable degradation in  
19 connection with hazardous algal blooms.

20 JUDGE AVILA: Can I just ask a  
21 clarifying question? When you say you the  
22 modeling was done with double the production and

1 run for five years, what is -- what do you -- so  
2 you just double the amount of fish, and then they  
3 did this thing for five years. Is that what that  
4 means?

5 MR. SCHWARTZ: Right. Well there are  
6 two types of modeling, the water quality and --

7 JUDGE AVILA: Right.

8 MR. SCHWARTZ: -- the depositional.

9 (Simultaneous speaking.)

10 JUDGE AVILA: Yes.

11 MR. SCHWARTZ: So they were both done  
12 at double the production, which would mean 40,000  
13 fish instead of 20,000.

14 JUDGE AVILA: All right.

15 MR. SCHWARTZ: And it also was done  
16 assuming that they were all at full production at  
17 the end of the production cycle, when your amount  
18 of pollution is maximized.

19 So I guess we're looking for the water  
20 quality monitoring was done for -- that was done  
21 for one year just by the nature of the model. It  
22 wasn't capable of being done for five years, but

1 it was done at double production at solo 80,000  
2 pounds weight.

3 And the depositional modeling was done  
4 at full production -- double production for the  
5 full five years. So that's to parse it in more  
6 detail I think spells it out in you know in as  
7 much detail as --

8 (Simultaneous speaking.)

9 JUDGE LYNCH: And Counsel, if the  
10 modeling showed a problem in the modeling of the  
11 chlorophyll, how would you address that? How  
12 would that be addressed?

13 MR. SCHWARTZ: Well the model -- so  
14 unreasonable degradation determination, and not  
15 just the Staff determination, but many of the  
16 issues that were raised by Petitioners to get the  
17 analysis that we made depends greatly on the  
18 modeling the amount of pollution --

19 JUDGE LYNCH: Well what if the -- I  
20 may have misspoke. What if the monitoring showed  
21 a problem?

22 (Simultaneous speaking.)

1 MR. SCHWARTZ: If the monitoring  
2 showed a problem, EPA would have the ability to  
3 based on new information adjust permit conditions  
4 and request further field monitoring. EPA has  
5 the ability to require modifications to any of  
6 the plans required under the permit. No fish can  
7 be stocked until the plans have been approved,  
8 and EPA has authority to require modifications to  
9 those plans including monitoring.

10 And ultimately if information  
11 justified it, permit modification or termination  
12 are within the Agency's authority if the criteria  
13 for those actions are met.

14 I think that the conservative nature  
15 or approach to our modeling that was done to  
16 support our analysis indicates that that's  
17 unlikely.

18 You know, there's certain equations  
19 for the water quality for example where you  
20 factor in the amount of the pollutant discharge  
21 based on fish feed used and fish feces based on  
22 their number and size, and the dilution current

1 in the Gulf at the location of the facility.

2 And those result in -- those  
3 calculations result in indications or in  
4 conclusions that if we go further afield from the  
5 monitoring that's going to be required, we aren't  
6 going to see any discernible impact.

7 JUDGE AVILA: Could I just ask --

8 (Simultaneous speaking.)

9 JUDGE AVILA: -- one -- sorry I'm  
10 getting feedback. Could I -- on the monitoring  
11 in the reply brief Friends of Animals, kind of  
12 take issue with the five-meter downstream saying  
13 that the Ocean Discharge Criteria Evaluation at  
14 Page 46 says that impacts resulting from the  
15 facility will likely be limited to the  
16 surrounding area.

17 But then says within 300 to 500 meters  
18 from the perimeter of the cage array. So I was  
19 wondering what your response to that was? I mean  
20 what --

21 MR. SCHWARTZ: My understanding is  
22 that relates to the depositional field --

1 JUDGE AVILA: Oh.

2 MR. SCHWARTZ: -- which again that --  
3 the modeling for that, and this is borne out in  
4 several places in the record, result in no  
5 discernible impacts to sediment or operations.

6 (Simultaneous speaking.)

7 (Telephonic interference.)

8 JUDGE AVILA: Could I discuss -- and  
9 I'm kind of jumping around on you, I apologize,  
10 but in the ESA question, the final Biological  
11 Evaluation Assessment notes that the permit  
12 applicant, in cooperation with NMFS, developed a  
13 Protected Species Monitoring Plan for the  
14 proposed action of that represents.

15 And I think I'm quoting, an important  
16 minimization measure to reduce the likelihood of  
17 any unforeseen potential injury to all protected  
18 species including ESA-listed marine animals.

19 So I wanted to just understand a  
20 little bit better: how is the permittee's  
21 compliance with the PSMP done? Is it a permit  
22 term, or -- or what -- I mean it's been

1 developed, how does that factor into this?

2 MR. SCHWARTZ: Well that was a  
3 commitment that was made to NMFS, the Protected  
4 Species Monitoring Plan, and it's not just  
5 monitoring requirements, but it also has  
6 requirements for avoiding harmful interactions  
7 with protected species.

8 But the permit itself does not include  
9 that plan or the condition. And although they  
10 have made that commitment in documents submitted  
11 to the Agency, so arguably it would be  
12 enforceable as a commitment made and under  
13 consideration in the application documents.

14 JUDGE AVILA: Were -- is there  
15 anywhere where I can find that commitment in you  
16 know off the top of your head?

17 MR. SCHWARTZ: Not off the top of my  
18 head, I could ask the permit writer who's next to  
19 me, I would need application materials to start  
20 it though.

21 JUDGE AVILA: Okay.

22 MR. SCHWARTZ: And NMFS did not, as I

1 mentioned before, they did not ask for any -- and  
2 we can look to them for primarily for conditions  
3 to add to the permit to -- as necessary to  
4 support the NLAA determination, and they did not  
5 ask for any.

6 In our initial review, in the  
7 biological evaluation to not deem that to be  
8 necessary to support the NLAA determination, so  
9 it's sort of floating out there as a commitment  
10 made to NMFS, and one that's described in their  
11 materials provided to us.

12 JUDGE AVILA: Thanks.

13 JUDGE STEIN: Is EPA required to  
14 address issues raised by the Petitioner about the  
15 biological evaluation during the public comment  
16 period when it has already received concurrence  
17 from the service?

18 MR. SCHWARTZ: Well I believe the  
19 Agency is obligated to respond to all substantive  
20 comments made during -- over a comment period,  
21 and we did take them -- we had over 40,000  
22 comments.



1           So it was a challenge to organize them  
2           and determine how many were unique, but their --  
3           NPDES permitting regulations require response to  
4           substantive comments.

5           And so I believe we were obligated to  
6           respond to that, and certainly we could've -- if  
7           we determined it was warranted and raised  
8           questions that were not adequately addressed in  
9           the record, could have gone back to NMFS for  
10          further support or information.

11          JUDGE STEIN: So we talked earlier  
12          about the fish attraction device, and I believe  
13          you provided some information about the Agency's  
14          view on that topic.

15          There is one statement, and I think  
16          you addressed it in your brief, where you -- I  
17          think it was actually in the response to comments  
18          at page 35. It says that whether the facility  
19          was a FAD was outside the scope of the NPDES  
20          permitting action.

21          Am I to understand that that statement  
22          does not mean that you did not consider that

1 issue? If you could clarify for me what you  
2 understand that statement to mean?

3 MR. SCHWARTZ: Yes. Well I explained  
4 that statement as a relic of the way that a  
5 responsibility to develop the response to  
6 comments was divided up.

7 So as some staff would be focused on  
8 particular issues and some on others, and that  
9 was a relic or a product of the drafting of that  
10 response being focused on analysis of the  
11 pollutant discharge, which is the focus of an  
12 NPDES permit, it authorizes a discharge.

13 However, we do -- do not deny in a I  
14 think I stated this in our brief that if there  
15 are consequences of the facilities functioning as  
16 a fish attraction device, were relevant to our  
17 other portions of the Agency's permitting  
18 analysis, including under the Endangered Species  
19 Act and under our voluntary conduct of a NEPA  
20 analysis. The risks that are described as  
21 associated with the status as a fish attraction  
22 device are essentially the risk of vessel strike

1 or impacts from fishing vessels that might impact  
2 species, or entanglements from fish that might be  
3 attracted to this facility subsequently becoming  
4 entangled, which those are not NPDES discharge  
5 issues, those are more NEPA and Endangered  
6 Species Act issues.

7 So it was analyzed and it came under  
8 those other portions of the Agency's analysis.  
9 Unfortunately, when the response to comments was  
10 finalized, we didn't identify that statement  
11 which was over-broad in terms of how it was  
12 stated, and it was a relic of it being a response  
13 that was focused on impact of the discharge.

14 (Telephonic interference.)

15 JUDGE STEIN: And if I understand you  
16 correctly to say that had the Agency identified  
17 permit conditions relating to that issue that it  
18 thought were appropriate for this permit, that  
19 the Agency would've had or has the discretion to  
20 put those permit conditions into this permit?

21 MR. SCHWARTZ: I think, you know,  
22 there's always if they're inserting permit

1 conditions that we do want to tie it to some  
2 basis of authority, our consultation with NMFS,  
3 and our obligation to comply with the Endangered  
4 Species Act, or NEPA, where we evaluate  
5 alternatives and seek to find the least  
6 environmental damaging.

7 And also the Ocean Discharge Criteria  
8 has, one of the factors relates to ecological and  
9 biological impacts, and the Ocean Discharge  
10 Criteria, however, again, is focused on the  
11 pollutant discharge.

12 So I guess, you know, there is -- we  
13 could take it though by just using an indirect  
14 impact, the pollutant discharge attracts fish,  
15 the XST. And so even though it's not the  
16 pollution that's causing the harm, it could  
17 attract fish who then could be harmed from their  
18 interaction with the facility in the form of  
19 vessel strikes or entanglements, and those risks  
20 were analyzed.

21 JUDGE STEIN: Now we've asked you a  
22 large number of questions. We may have a few

1 more. But if there are a few things in your  
2 remaining few minutes here that you would like to  
3 add while we collect our thoughts, now would be a  
4 good time to add those.

5 MR. SCHWARTZ: I guess I've -- we've  
6 ventured through a lot of different areas, so I  
7 know that you -- there is an opportunity to rebut  
8 for rebuttal time, and I would like to just maybe  
9 spend a minute while the rebuttal is occurring to  
10 look through my notes to see if there's an  
11 important issue that I didn't get to during all  
12 the commenting.

13 JUDGE STEIN: Why don't you take a  
14 minute now? We typically don't have a rebuttal  
15 from the permit issuer, so if you want to just  
16 take a minute now and look at your notes, I think  
17 that would be the preferable way to do that.

18 MR. SCHWARTZ: Okay.

19 JUDGE STEIN: So why don't we pause  
20 for a minute, and we'll look at our notes and you  
21 can look at your notes, and then we can just sum  
22 up.

1 MR. SCHWARTZ: Thank you, Your Honor.

2 (Pause.)

3 JUDGE STEIN: So I have one final  
4 question on my end, which is: what is  
5 petitioner's burden on appeal?

6 And I don't think I've asked you this  
7 question, if I have, forgive me. Is it to  
8 establish clear error, or must they prove the  
9 negative of the region's determination of  
10 unreasonable degradation?

11 MR. SCHWARTZ: My understanding of the  
12 burden is that they have to demonstrate clear  
13 error in the analysis and determinations  
14 submitted by Agency. There are perhaps, you  
15 know, some other discretionary ways in which the  
16 Board can decide to conduct review.

17 And it's sort of inherent in that core  
18 error determination is determination of whether  
19 we duly considered the issues raised in the  
20 comments, and that whether our decision is  
21 rational in light of all the information in the  
22 record. They're sort of similar to the core of

1 our understanding.

2 But it's a very -- it is a very  
3 deferential standard, especially on technical  
4 issues, and you know, the general rule that the  
5 Board's power of review is to be sparingly  
6 exercised, and the policy to favor adjudication  
7 of most permits at the permit issuer level. Does  
8 that answer your question?

9 JUDGE STEIN: That answers my  
10 question. And I don't know if any of the other  
11 Judges have any other questions?

12 JUDGE LYNCH: No.

13 JUDGE AVILA: No, thank you.

14 MR. SCHWARTZ: And the other -- the  
15 only thing I thought that I perhaps want to get  
16 into that I didn't touch on already. Well, two  
17 things I guess.

18 One, the NEPA issues, which I feel  
19 that the inapplicable -- the lack of  
20 applicability of NEPA is clear, so I wouldn't  
21 make it a priority to talk about the ways in  
22 which our analysis was appropriate under the NEPA

1 procedures.

2 But I don't feel it necessary, unless  
3 the Board wants to, to get into those kinds of  
4 details. A lot of the factual analysis is the  
5 same under NEPA as with all the other issues, the  
6 same kind of factual issues come up. And then,  
7 the only, only other thing --

8 JUDGE AVILA: I just want to confirm  
9 that your position is that it's exempt from NEPA  
10 and was a voluntary process, right?

11 MR. SCHWARTZ: It is exempt, exempt  
12 from NEPA, you're --

13 JUDGE AVILA: Yes --

14 (Simultaneous speaking.)

15 MR. SCHWARTZ: All right.

16 JUDGE AVILA: Thank you.

17 JUDGE STEIN: And then, you can finish  
18 what you were saying.

19 MR. SCHWARTZ: Okay. And then,  
20 there's just our arguments I guess, both under  
21 the Endangered Species Act and NEPA, about future  
22 aquaculture and needing to cumulate these



1 impacts.

2 And under the Endangered Species Act,  
3 cumulative effects are limited to reasonably  
4 certain to occur, and the potential for  
5 commercial facilities to be permitted is too  
6 speculative, both, in particular, in connection  
7 with the need to find some kind of effects, the  
8 cumulative effects determination would require  
9 some worsening or increased harm that would be  
10 attributable to this facility, or compounding of  
11 a harm.

12 In this facility, one won't likely be  
13 operating while any other facilities are. Any  
14 minimal effects are likely to be gone. Not just  
15 diminished, but absent by the time any other  
16 facility is operated.

17 And the only facility which is  
18 currently under review, there was no, the  
19 application wasn't even complete at the time the  
20 permit was issued, is a facility that's 300 miles  
21 to the west.

22 So the idea that there could be some

1 cumulative impact between this and that facility  
2 or purely speculative impacts from as-yet unknown  
3 or unidentified projects is just too attenuated.

4 And I, I would also say that there's  
5 nothing, they seem to imply that the fact that  
6 this is pilot scale means that this will be a  
7 pilot for future determinations by EPA.

8 And I think that's a pilot scale in  
9 determining -- in terms of the applicant  
10 determining the business viability of this type  
11 of activity.

12 It's not piloting our future  
13 evaluation of any commercial, commercial scale  
14 projects, where the, the impacts would be grossly  
15 enlarged compared to this one and would require a  
16 much more detailed and thorough evaluation of  
17 impacts that far outstrip what it said it  
18 shouldn't.

19 (Telephonic interference.)

20 JUDGE AVILA: I'll just ask one  
21 follow-up, I know you're out of time. But as to  
22 the unknown, unidentified future projects,

1 presumably, correct me if I'm wrong, baseline for  
2 those projects would take into account any  
3 effects of this project?

4 MR. SCHWARTZ: They would under the  
5 Endangered Species Act.

6 JUDGE AVILA: Oh.

7 MR. SCHWARTZ: There's the degraded  
8 baseline obligation, and although we again don't  
9 believe there will be any degradation, especially  
10 at the time other any such facility might  
11 operate, they would have to take into account any  
12 already-evaluated facilities.

13 JUDGE AVILA: Thank you.

14 JUDGE STEIN: Any further questions,  
15 Judge Lynch?

16 JUDGE LYNCH: No. Thank you.

17 JUDGE STEIN: Thank you, Mr. Schwartz,  
18 we appreciate it.

19 MR. SCHWARTZ: Thank you.

20 JUDGE STEIN: Let's go to rebuttal.

21 And if the Clerk would add two minutes to each  
22 rebuttal, just so that we stay relatively even on

1 time. Let's hear first from Friends of Animals,  
2 Ms. Best.

3 MS. BEST: Thank you, Your Honor.  
4 First, I just wanted to stress a couple issues  
5 about the Clean Water Act and the legal standard  
6 that applies here and, and clarify some things  
7 that, I think, may have been a little bit  
8 misleading in, in Counsel's argument.

9 And -- and what I want to stress is  
10 that Congress prioritized the protection of our  
11 waters and of the integrity of the federal waters  
12 in the United States when it passed the Clean  
13 Water Act.

14 And it's very important that the  
15 statutory language says when there's insufficient  
16 information, no permit shall be issued. I think  
17 that's a key issue here.

18 It has been brought up what the  
19 standard is and whether petitioners have to prove  
20 a negative, and, and, and they don't. It's  
21 clear, I think everyone agrees petitioners don't  
22 have an obligation to show that there will be

1 unreasonable degradation.

2 But just if the Agency committed an  
3 error when it said we think there's sufficient  
4 information, and in fact there wasn't. That's  
5 enough to be a clear legal error here.

6 And that's what Congress intended when  
7 it said if there's not sufficient information, no  
8 permit shall be issued. And I think that's  
9 relevant when you look at the EPA's language,  
10 when you look at what it said in the Ocean  
11 Discharge Criteria Evaluation as -- as --

12 JUDGE AVILA: I'm sorry to --

13 MS. BEST: -- you brought up --

14 JUDGE AVILA: -- I'm -- I'm sorry to  
15 interrupt your rebuttal, but I think --

16 (Simultaneous speaking.)

17 JUDGE AVILA: -- I thought you started  
18 with saying that something had been stated as  
19 misleading, and I would like you to explain to  
20 me, because that --

21 (Simultaneous speaking.)

22 JUDGE AVILA: -- that's kind of

1 important to me if something was misleading. So  
2 I --

3 MS. BEST: Yes, Your Honor. What I  
4 thought was misleading is it seemed like Counsel  
5 indicated that EPA made a finding that these  
6 nutrients will not contribute to harmful algal  
7 blooms.

8 And when you look at the actual record  
9 on, before the, the Agency and, and what it, what  
10 it found in the Ocean Discharge Criteria  
11 Evaluation, it was careful with its language, and  
12 it didn't say we have sufficient evidence to know  
13 that this will not cause harmful algal blooms.

14 That's not the finding they made. The  
15 finding they made, and if you look at Page 35, it  
16 says the effects of the factors on phytoplankton  
17 near fish farms are variable and not enough  
18 evidence is available. So I think that's a clear  
19 --

20 JUDGE AVILA: Page --

21 (Simultaneous speaking.)

22 JUDGE AVILA: -- page -- Page 35, Page

1 35 of what?

2 (Simultaneous speaking.)

3 (Telephonic interference.)

4 MS. BEST: The Ocean Discharge  
5 Criteria Evaluation.

6 JUDGE AVILA: And what did you say it  
7 said?

8 MS. BEST: It -- it says that not  
9 enough evidence is available to suggest that  
10 macronutrients and micronutrients from fish  
11 farming or the proposed projects can be directly  
12 related to the occurrence of red tide.

13 And again, this language is modified  
14 from the draft, where they originally said  
15 there's no good scientific evidence, and they  
16 said that's misleading, so we'll change it to not  
17 enough evidence.

18 And I think that's, that's important  
19 here, because the standard is if there's not  
20 enough -- if there's not enough information, the  
21 permit should not be issued.

22 And here, EPA didn't say we have

1 enough information to conclude that this will not  
2 contribute to harmful algal blooms. That's not  
3 the finding they made. The finding they made was  
4 there's not enough evidence, and in that case I  
5 think it's a clear error to issue the permit  
6 here.

7 The next thing I kind of want to talk  
8 about is in their Ocean Discharge Criteria  
9 Evaluation Counsel indicated, you know, that they  
10 do -- that potential fish escapes would  
11 constitute as a pollutant and a discharge of  
12 pollutant under the Clean Water Act and that this  
13 was adequately considered.

14 But if you look at the Ocean Discharge  
15 Criteria Evaluation, they, Section 4 says  
16 discharged materials, and it's limited to only  
17 fish feed and fish waste.

18 They don't look at the other potential  
19 pollutants, and there's not enough in the record  
20 to make a finding that they considered these  
21 pollutants and they considered these pollutants  
22 along with the ten factors that they're obligated



1 to consider. This is --

2 JUDGE AVILA: And which of the ten  
3 factors do you think escaped fish falls within?

4 MS. BEST: A couple of different  
5 factors. One would be Factor 2, the potential  
6 transport of such pollutants by biological,  
7 physical, or chemical processes. So this would  
8 be the biological transport of these fish into  
9 the open ocean.

10 This is of concern because, as EPA  
11 admitted in their response to comments, it's  
12 possible that these are reservoirs for infectious  
13 disease.

14 They're having a net pen with a huge  
15 concentration of fish swimming around in, in  
16 their own feces, and they're generally not as  
17 healthy, because they can't swim in the open  
18 ocean, they're confined to this small place with  
19 a high-density of fish, a lot of fish food, a lot  
20 of fish fecal matter, and there's a potential for  
21 disease.

22 And if these fish escape, there's the

1 potential that they're going to spread the  
2 disease through to other species in the marine  
3 environment.

4 So there's a huge concern that needed  
5 to be considered under, you know, Factor 2 and  
6 then also, if you look at Factor 3, the  
7 composition and vulnerability of the biological  
8 community.

9 So now, they have to look at the fish  
10 escape transfer, and they also have to look at  
11 what other species are around and are at risk for  
12 contracting potentially diseases or having to  
13 compete with these fish escapes. These are  
14 things that they didn't, they didn't look at in  
15 the Ocean Discharge Criteria Evaluation, they  
16 limited that evaluation really just to fish food  
17 and fish waste.

18 The other thing that, I think, the  
19 Agency -- there was a clear error when it did not  
20 look at, was that these pens act as a fish-  
21 aggregating device.

22 And it seems like Counsel agrees there

1 is a potential, even 45 miles offshore there's  
2 many recreational and commercial fisheries that  
3 will go 45 miles offshore, and they, the, the  
4 company here does promote this facility as acting  
5 as a fish-aggregating device.

6 However, in their evaluation of this  
7 under the Endangered Species Act, and they're,  
8 which is, is mostly found in, in, you know, the  
9 biological evaluation, they repeatedly say that  
10 they're only looking at the vessels associated  
11 with the facility.

12 For example, if you look at Page 25 of  
13 the Biological Evaluation, it says in regard to  
14 vessel strikes, facility staff will use only one  
15 vessel for the duration of the project.

16 It goes on to say therefore the  
17 probability of collisions with a vessel  
18 associated with the proposed project with sea  
19 turtles is discountable.

20 So again, their analysis that, you  
21 know, this is not likely to adversely affect  
22 species is based on it not acting as a fish-

1 aggregating device and is only looking at the  
2 vessels associated with the facility.

3 JUDGE AVILA: And again, I hate to  
4 interrupt your rebuttal, but didn't NMFS say that  
5 in order for there to be a sea turtle strike,  
6 you'd need a small marina out there?

7 MS. BEST: No, Your -- what they said  
8 is they looked at marinas and would -- said that  
9 there needed to be, you know, more vessels,  
10 potentially, I believe, it may have been 200  
11 vessels, but I'm not sure, to --

12 JUDGE AVILA: Or less.

13 MS. BEST: -- cause -- to cause a  
14 vessel strike. Here, they never indicated how  
15 many vessels would be, would be in this area.  
16 Moreover, this is different than a marina,  
17 because it's acting as a fish-aggregating device.

18 And because EPA acknowledged that this  
19 could actually attract sea turtles, because they  
20 could use it for food, for shelter, and that's  
21 not going to happen at a marina.

22 So you may need less vessels before

1 you're going to see an adverse impact to these  
2 sea turtles. But then, this is different than a  
3 marina, and they should have considered that in  
4 their analysis.

5 What's important is that their  
6 conclusion was based on only one or two vessels,  
7 when in fact the record is clear that there could  
8 be more vessels in the area, and this could pose  
9 a serious risk to threaten an endangered animal.

10 And notably, if you look at the  
11 recovery plans for the loggerhead sea turtles, it  
12 says increases in vessel traffic that result from  
13 aquaculture operations must be evaluated with  
14 respect to the effect on resident or migratory  
15 sea turtle populations.

16 It also states that the seriousness of  
17 the threat caused by vessel strikes to  
18 loggerheads in the Atlantic and Gulf of Mexico,  
19 cannot be overstated. So EPA's failure to really  
20 analyze this and consider it as a fish-  
21 aggregating device is a serious legal error.

22 But I -- I believe that my, my time is

1 almost up, so if there's no further questions, I  
2 would just ask that the Board vacate this, this  
3 permit and remand it to the Agency for more  
4 consideration. This is the first of its kind,  
5 and it's important that they give it the  
6 consideration needed and required by law.

7 (Simultaneous speaking.)

8 JUDGE STEIN: Thank you, Counsel. No  
9 further questions here.

10 JUDGE AVILA: Thank you, Counsel.

11 JUDGE STEIN: Thank you, appreciate  
12 your arguments. Thank you. Ms. Stevenson.

13 MS. STEVENSON: Yes. I would like to  
14 respond to three points that Opposing Counsel  
15 made. First off --

16 JUDGE STEIN: I'm not --

17 (Simultaneous speaking.)

18 JUDGE STEIN: -- seeing your video --  
19 oh, never mind.

20 (Simultaneous speaking.)

21 MS. STEVENSON: Oh.

22 JUDGE STEIN: I see it, never mind.

1 MS. STEVENSON: Can you -- can you  
2 hear me all right?

3 JUDGE STEIN: Yes.

4 MS. STEVENSON: Okay. I'd like to  
5 respond to three things that Opposing Counsel  
6 stated. First, that all pollutants were assessed  
7 somewhere in the general way, second that small  
8 amounts of discharges were not detectable, and  
9 third that current conditions will be enough.

10 So to address my first point. That is  
11 not the case that all pollutants were assessed  
12 somewhere in the record in a general way that  
13 addresses all ten of the relevant factors.

14 So firstly, escaped fish were not even  
15 mentioned in the Ocean Discharge Criteria  
16 Evaluation, and escaped fish were not discussed,  
17 the impacts of them on competition for food, for  
18 mates, for habitat, those were not discussed  
19 anywhere in the Environmental Assessment, their  
20 response to comments, or in the Biological  
21 Evaluation, instead what was discussed was some  
22 mitigation measures.

1           As Opposing Counsel mentioned, there  
2           is a, a type of cage that EPA quote-unquote  
3           believes will be sufficient, and that's just the  
4           point, it's a full leap.

5           This is a new type of case. This is  
6           a novel project, a novel area, where there are --  
7           where there is severe weather, which the Agency  
8           does acknowledge in the Environmental Assessment,  
9           that could potentially harm the cage.

10          And yes, there is a plan for, you  
11          know, for responding to this, for monitoring for  
12          this, for checking on it, however that, that is  
13          not elaborated on at all, how that's going to  
14          completely eliminate this impact. And --

15          JUDGE AVILA: And again, I apologize  
16          to interrupting your rebuttal, but what evidence  
17          is there in the record that undermines EPA's  
18          belief on that?

19                 (Simultaneous speaking.)

20          MS. STEVENSON: Well, there's no  
21          evidence in the record that supports their belief  
22          on that. The only thing that supports their --



1 JUDGE AVILA: Did you -- did you  
2 submit a comment on it?

3 (Simultaneous speaking.)

4 MS. STEVENSON: Well, we commented on  
5 the fact that that these typically result in  
6 escapes, and we commented on the fact that this  
7 was the case that is similar to other designs  
8 that have actually resulted in escapes, such as  
9 the escape from Cooke, such as the other facility  
10 in Hawaii.

11 Yes, there are some small differences  
12 that were changed with this one, but all the EPA  
13 has is their quote belief, and also there --

14 JUDGE LYNCH: Isn't it their technical  
15 judgment, Counsel?

16 (Simultaneous speaking.)

17 MS. STEVENSON: Yes, it is their  
18 technical judgment that it will result -- that it  
19 will not result in fish escapes. However,  
20 they're just --

21 JUDGE LYNCH: And I guess, I --

22 (Simultaneous speaking.)

1 JUDGE LYNCH: -- also wanted to go  
2 back, earlier you said that they did not address  
3 the impacts of hurricanes at all, but it looks to  
4 me like they did in Page 17 to 18 in their  
5 response to comments.

6 (Simultaneous speaking.)

7 MS. STEVENSON: Yes, and they've just  
8 -- all they do is they point -- they acknowledge,  
9 yes, there's the weather, there's risks to  
10 weather, yes, that could result in fish escapes.

11 But then, they just point to their  
12 best management practices plan, and they point to  
13 their facility damage prevention and control  
14 plan, both of which, as we've seen before, have  
15 not even been established.

16 The Agency hasn't received these  
17 plans, these plans have very vague requirements,  
18 for example the facility damage prevention and  
19 control plan requires a facility-specific  
20 analysis of potential risks for each type of  
21 disaster.

22 But we haven't seen that, that

1 analysis, we haven't even seen that, the Agency  
2 hasn't seen it either, so how can they determine  
3 that there will be no unreasonable degradation  
4 without that?

5 And then also, it says, describe the  
6 procedure used to prevent, control, and minimize  
7 the impacts. Well, controlling precedent states  
8 that the feasibility of mitigation measures is  
9 not self-evident, the Agency has to know what  
10 those mitigations measures will be and determine  
11 if they're going to be feasible.

12 And there has -- there's not even any  
13 specific mitigation measures listed out yet other  
14 than the cage design. We don't even know if  
15 anything in this stance is going to be feasible,  
16 or if it's actually going to happen, or what  
17 exactly is going to happen, so it's unclear to me  
18 how the Agency could have determined what --

19 JUDGE LYNCH: When you say --

20 MS. STEVENSON: -- the --

21 JUDGE LYNCH: -- mitigation measures,  
22 what statute are we, you referring to?

1 (Simultaneous speaking.)

2 MS. STEVENSON: Well, the mitigation  
3 measures, I'm talking about the plans, the, the  
4 --

5 JUDGE LYNCH: You said under --

6 (Simultaneous speaking.)

7 JUDGE LYNCH: -- case precedent, I  
8 just wanted to understand.

9 (Simultaneous speaking.)

10 MS. STEVENSON: I'm just stating, well  
11 that would be a precedent from the National  
12 Environmental Policy Act that --

13 JUDGE LYNCH: Okay.

14 MS. STEVENSON: -- given (telephonic  
15 interference) assessment --

16 JUDGE LYNCH: All right, thanks.

17 (Simultaneous speaking.)

18 MS. STEVENSON: -- yes.

19 (Simultaneous speaking.)

20 MS. STEVENSON: Okay, so then also, I  
21 would like to note that, as Opposing Counsel  
22 stated, that the Agency states that they will

1 source the fish from a native, a native place, so  
2 that they will be raised from, from the Gulf.

3 Nowhere is that required anywhere in  
4 the permit, it's completely unenforceable. It is  
5 not even vaguely pointed at, in any of the best  
6 management practices requirements or in the  
7 facility damage and control plan, it's nowhere in  
8 the permit.

9 So therefore, we don't know where the  
10 fish are going to be sourced from, they're just  
11 taking the permittee's word for it, and so it's  
12 completely unenforceable, it cannot be used as a  
13 mitigation measure or as something that would  
14 indicate no unreasonable degradation, other than  
15 --

16 JUDGE AVILA: Is it a part --  
17 (Simultaneous speaking.)

18 JUDGE AVILA: -- of the permit  
19 application?

20 (Simultaneous speaking.)

21 MS. STEVENSON: I don't have the  
22 application before me, but it is not included in

1 the actual permit. It's not mentioned --

2 JUDGE AVILA: But it could be --

3 MS. STEVENSON: -- it's not --

4 (Simultaneous speaking.)

5 JUDGE AVILA: -- okay.

6 (Simultaneous speaking.)

7 MS. STEVENSON: Yes, so it's  
8 unenforceable. So I'd like to move onto this  
9 idea of -- for small discharges that will be  
10 detectable.

11 For example, with harmful algal blooms  
12 it's unclear to me how the Agency could have made  
13 this determination, because in the Ocean  
14 Discharge Criteria there's a lot of discussion of  
15 which kind of feed would even be used, so a lot  
16 of that phosphorus is going to come from feed.

17 And the Agency indicated in the Ocean  
18 Discharge Criteria Evaluation that sometimes the  
19 feed, 71 percent of the phosphorus in the feed is  
20 released, and this is on Page 35 of the, of the  
21 evaluation, and others it, it's less.

22 So we don't know which kind of feed is

1 going to be used. And then, the Agency also  
2 admits in the Ocean Discharge Criteria Evaluation  
3 that the amount of waste is, the amount of  
4 nitrogen or phosphorus that is going to be used  
5 really depends on the care used by the fish  
6 farmer during the feeding.

7 And again, those -- the best  
8 management practices for the feed management are  
9 extremely vague and have not yet been  
10 established. They are things like just employing  
11 efficient feed managing strategies.

12 So the Agency could not have used  
13 those very vague things to really make a, a  
14 determination that there would be no unreasonable  
15 degradation here.

16 And with regards to pathogens, in  
17 regards to the discussion of, you know, will the  
18 fish interact with the wild species, yes, they  
19 will.

20 And it's very possible that pathogens  
21 could be, could be passed as well as in -- and  
22 the EPA also mentions that there would be no

1 indirect health concerns to consumers from  
2 antibiotic use and pathogens. That is incorrect.

3 On Page 4 of their Environmental  
4 Assessment, EPA states that there could be an  
5 indirect threat to human health, to consumers,  
6 from consumption of these fish.

7 And I'd also like to respond to the  
8 idea that the impacts would only be this 12-month  
9 to 18-month period. Again, as, as we discussed,  
10 or as we discussed, the Section 10 permit in the  
11 Rivers and Harbors Act has not even been issued  
12 yet.

13 So the EPA is again relying on the  
14 permittee saying that the equipment will be out  
15 there for 18 months. Yet as Opposing Counsel  
16 mentioned, you know, we don't know how long it's  
17 going to be out there yet.

18 The copper could be leaching from a  
19 facility for longer. The -- the things that  
20 could entangle endangered species could be out  
21 there for longer.

22 A lot of those entanglement risks are



1 actually dismissed in the Biological Evaluation  
2 simply because of this 18-month plan and this  
3 reliance on the permittee, where they'll only be  
4 there for 18 months.

5 So for example, impacts to the  
6 loggerhead sea turtle were just totally dismissed  
7 just because of the short period. But there's  
8 nothing enforceable with regards to that, with  
9 regards to how long the equipment will be out  
10 there, so it's important to mention. And also,  
11 with regards to the fish-aggregating device, so  
12 Opposing Counsel was stating that, you know, the  
13 facility is very far out in the ocean, we don't  
14 know if fishermen will be going out that far.

15 Well, vessel strikes is not the only  
16 impact that is increased by that fish-aggregating  
17 device, as, as my colleague mentioned, there can  
18 be more and more entanglements.

19 The Biological Evaluation specifically  
20 states that the loggerhead sea turtle is, is  
21 vulnerable to entanglement, as are whales, as are  
22 numerous other species that could be attracted,

1 so basically vessel strikes aren't the only  
2 impact.

3 And also, a lot of other impacts,  
4 where the Biological Evaluation specifically  
5 dismissed impacts to the, the Giant Manta Ray,  
6 simply because of the small scale of the  
7 facility, while if the facility is attracting the  
8 fish directly to it, then those impacts could be  
9 more, and the Agency completely overlooked that  
10 in its Biological Evaluation.

11 And with regards to the water quality  
12 and depositional modeling that was mentioned  
13 earlier, I want to know that that was done for  
14 the full five years, although all other impacts  
15 were not assessed for the full five years under  
16 the Environmental Assessment or the Biological  
17 Evaluation.

18 And also that water quality and  
19 depositional modeling did not take into account  
20 climate changes or weather, so over -- so we  
21 don't know when it's going to be placed out  
22 there.

1           Yes, it's true the permit only allows  
2           for 12 months, but it does not state that it  
3           needs to go out there. And so all of that was  
4           only for the same changes, the same weather that  
5           was not taken into account.

6           It also does not take into account all  
7           of the facilities that could be in place over the  
8           next five years, so Opposing Counsel said that  
9           these other facilities are speculative, we  
10          disagree.

11          We believe they are reasonably  
12          foreseeable, especially because under that  
13          executive order that establishes aquacultural  
14          opportunity areas, the Agency needs to submit a  
15          programmatic environmental impact statement by  
16          next August, and that is intended to streamline  
17          further permitting of other facilities in the  
18          area.

19          Stackability is not prohibited and  
20          could result in other facilities being there  
21          within those five years. However, cumulative  
22          impacts within those five years were not

1 discussed, nor were any impacts cumulatively that  
2 could result from all of these facilities.

3 And the -- yes. And I would like to  
4 respond to the idea that NEPA is a pilot, that  
5 this facility is a pilot scale, that it's so  
6 small -- again, as we've discussed multiple  
7 times, this is an 80,000-pound facility.

8 And that size, the amount of fish that  
9 are produced here, the amount of feed, all of  
10 that is precisely why EPA decided to prepare EMI  
11 in its assessment -- and decided to prepare the  
12 metadata under the National Environmental Policy  
13 Act.

14 EPA decided to do this because this is  
15 always so close to the 100,000 pounds that would  
16 be totally required for NEPA and because the  
17 discharges are similar to other facilities that  
18 are larger, and because this is a first in the  
19 Gulf.

20 And so the Agency voluntarily  
21 undertook NEPA, and the Agency did not prepare an  
22 EIS as was required. So under the intensity

1 factors under NEPA, two of those factors are  
2 whether a project is, you know, the first of it,  
3 like, setting a precedent for future projects,  
4 and other, if, if there are unknown impacts.

5 And both of those factors apply here,  
6 so an EIS should have been done. If there is no  
7 question that this project is the first of its  
8 kind and therefore we should take a precautionary  
9 approach. Thank you.

10 JUDGE STEIN: I want to thank  
11 everybody for their arguments today. They --

12 JUDGE AVILA: Thank you, Counsel.

13 JUDGE STEIN: -- have been very, very  
14 helpful to the Board, and we will take them into  
15 account in our deliberations. And with the -- I  
16 want to turn this back to the Clerk of the Board  
17 now to conclude the proceedings.

18 (Simultaneous speaking.)

19 JUDGE STEIN: I think we have a slight  
20 delay.

21 Mr. Cortes, are you available?

22 MR. CORTES: Yes, Your Honor.

1 JUDGE STEIN: Okay. I think we're  
2 ready to close the proceedings.

3 MR. CORTES: These proceedings before  
4 the Environmental Appeals Board are now  
5 adjourned.

6 (Whereupon, the above-entitled matter  
7 went off the record at 4:27 p.m.)

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## A

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