

**In The Matter Of:**  
*Coastal Resources Management Council*  
*Semi-Monthly Meeting*

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*Semi-Monthly Meeting*  
*November 22, 2022*

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STATE OF RHODE ISLAND  
COASTAL RESOURCES MANAGEMENT COUNCIL

\* \* \* \* \*

IN RE: SEMIMONTHLY MEETING

\* \* \* \* \*

Date: November 22, 2022  
Time: 6:00 p.m.  
Place: Administration Building  
One Capitol Hill  
Conference Room A  
Providence, RI

MEMBERS PRESENT  
Raymond Coia, Chairman  
Donald T. Gomez  
Lindsay McGovern  
Catherine Robinson-Hall  
Stephen Izzi  
Ronald Gagnon, DEM

Anthony DeSisto, Esquire, Legal Counsel  
Mark Hartmann, Esquire, Legal Counsel

STAFF PRESENT  
Jeff Willis, Executive Director  
Kevin Sloan  
David Ciochetto  
Justin Skenyon  
Lisa Turner, Recording Secretary

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I N D E X

REVIEW AND ACTION REGARDING APPLICATION REQUIRING  
PUBLIC HEARING AND SPECIAL EXCEPTION:

APPLICATIONS	PAGE
2021-07-005          REVOLUTION WIND	8
WITNESSES:	
HAUKE KITE-POWELL	
EXAMINATION BY MS. MAIN	10
BENJAMIN COTTS	
EXAMINATION BY MS. DIETER	38
KATHERINE PALMQUIST	
EXAMINATION BY MS. DIETER	45
DREW CAREY	
EXAMINATION BY MS. DIETER	58
JESPER CHRISTENSEN	
EXAMINATION BY MS. MAIN	66

Semi-Monthly Meeting - November 22, 2022

3

1 (MEETING COMMENCED AT 6:13 P.M.)

2 CHAIRMAN COIA: Good evening, everyone.  
3 Thanks for your patience. We waited a little bit  
4 because people are coming through security  
5 downstairs, and it's my understanding, everyone  
6 that wanted to come in is now here.

7 So I will call to order the semi-monthly  
8 meeting of the State of Rhode Island Coastal  
9 Resources Management Council to order. Today is  
10 Tuesday, November 22, 2022. I'd ask that the  
11 record reflect the Council members and staff that  
12 are present here this evening.

13 We have one matter that's on our agenda,  
14 it's a continuation of 2021-07-005, Revolution Wind.  
15 But prior to that matter, the first matter on our  
16 agenda would be the approval of the minutes of the  
17 previous meetings. We have two of them. Tuesday,  
18 November 1, 2022, have been disseminated to Council  
19 members. I would ask if the members are in a  
20 position to make a motion to accept those as  
21 presented?

22 MR. GOMEZ: I will accept them and move --  
23 do you want them one at a time?

24 CHAIRMAN COIA: Yeah, we'll do November 1

1 first. So a motion has been made to accept that.  
2 Is there a second?

3 MR. GAGNON: Second.

4 CHAIRMAN COIA: Motion and seconded. Any  
5 discussion?

6 (NO RESPONSE)

7 CHAIRMAN COIA: Hearing none, all in favor  
8 say, "aye."

9 (WHEREUPON, A VOICE VOTE WAS TAKEN)

10 CHAIRMAN COIA: Anyone opposed?

11 (NO RESPONSE)

12 CHAIRMAN COIA: That motion carries.

13 (MOTION PASSED)

14 CHAIRMAN COIA: Next on our agenda is  
15 review and approval of the minutes of  
16 November 9, 2022. I'd ask for a motion pertaining  
17 to those.

18 MR. GOMEZ: Move approval.

19 CHAIRMAN COIA: Motion's been made to  
20 approve. Is there a second?

21 MS. McGOVERN: Second.

22 CHAIRMAN COIA: Motion made and seconded.  
23 Any discussion?

24 (NO RESPONSE)

1 CHAIRMAN COIA: Hearing none, all in favor  
2 say, "aye."

3 (WHEREUPON, A VOICE VOTE WAS TAKEN)

4 CHAIRMAN COIA: Anyone opposed?

5 (NO RESPONSE)

6 CHAIRMAN COIA: That motion carries.

7 (MOTION PASSED)

8 CHAIRMAN COIA: Any subcommittee reports?

9 MR. WILLIS: Yes, Mr. Chair, there is one  
10 subcommittee report. The Planning and Procedure  
11 Subcommittee met at its November 15th meeting and  
12 is seeking Council concurrence to begin rulemaking  
13 on a joint regulation change with the Rhode Island  
14 Infrastructure Bank and Rhode Island Department of  
15 Environmental Management to jointly adopt the  
16 Ocean State Climate Adaptation and Resilience Fund,  
17 commonly referred to as the OSCAR fund.

18 The three parties would be administering  
19 that fund in a review capacity, primarily being run  
20 by the Infrastructure Bank, yet, the three agencies  
21 need to promulgate these regulations  
22 simultaneously. This is CRMC's rulemaking part in  
23 that process. So we're just looking for Council  
24 concurrence to begin rulemaking on that.

1 CHAIRMAN COIA: So is there a motion from  
2 the Council related to that?

3 MR. GOMEZ: I'll move approval on that.  
4 I'm on the subcommittee, and I'm very familiar with  
5 that, and I think that we should bring it forward  
6 since it's ready to be brought forward.

7 CHAIRMAN COIA: A motion has been made.  
8 Is there a second?

9 MS. McGOVERN: Second.

10 CHAIRMAN COIA: Motion's made and  
11 seconded. All in favor say, "aye."

12 (WHEREUPON, A VOICE VOTE WAS TAKEN)

13 CHAIRMAN COIA: Anyone opposed?

14 (NO RESPONSE)

15 CHAIRMAN COIA: It passes unanimously.

16 MR. WILLIS: Thank you.

17 CHAIRMAN COIA: Any other subcommittee  
18 reports?

19 MR. WILLIS: No other subcommittee  
20 reports.

21 CHAIRMAN COIA: Staff reports?

22 MR. WILLIS: Yes. There is just one --  
23 two items on the staff report, Mr. Chair. I  
24 mentioned at the last meeting that Water Place Park

1 was being dredged and overseen by CRMC and the  
2 Nature Conservancy. That is going quite well. A  
3 lot of the material has found its way to the south  
4 quay. It is being put in those geotextile bags for  
5 dewatering, amended while it's being done so. Once  
6 it's dewatered, it will be used as construction  
7 fill material later on in another project on that  
8 site. Right now, the dredging operations have  
9 ceased for the Thanksgiving holiday. They'll  
10 resume again on Monday.

11 And then, the one other item is, while  
12 we're here for the Category B application for  
13 Revolution Wind, we also have the federal  
14 consistency review of the larger offshore project  
15 for Revolution Wind.

16 As you remember, we had a December 27th, I  
17 believe, deadline for a federal consistency  
18 decision on that, and we and the Revolution Wind  
19 team have mutually agreed to another stay agreement  
20 to have that decision be put off until February.  
21 So thank you to the Revolution Wind team for that.  
22 That gives us some more time as staff to engage with  
23 the Fishermen's Advisory Board, other stakeholders  
24 on that particular project over the next couple of



1 months, rather than having to rush it before the  
2 end of December. That's it, Mr. Chair.

3 CHAIRMAN COIA: Any questions of  
4 Mr. Willis from Council members before we begin?

5 (NO RESPONSE)

6 CHAIRMAN COIA: Hearing none, we will be  
7 back on the record with 2021-07-005,  
8 Revolution Wind. As I indicated, the matter was  
9 previously heard here on November 1, 2022.  
10 Attorney Robin Main for Revolution, along with  
11 Attorney Christine Dieter, if I said it correctly.  
12 The description of the project has been read into  
13 the record -- it's lengthy on my agenda -- it's  
14 been read into the record. It is part of the  
15 application and our record, so I won't reread it in.

16 MR. DeSISTO: That's correct, yes.

17 CHAIRMAN COIA: So, Attorney Main, the  
18 floor is yours.

19 MS. MAIN: Thank you, Mr. Chair. Good  
20 evening, Council members. We appreciate, again,  
21 the opportunity to be before you tonight to present  
22 the remaining parts of the Revolution Wind  
23 application.

24 And what I would like to accomplish

1           tonight is, if the Council would allow, is to put  
2           on our witnesses pertaining to the mitigation  
3           requirements under the OSAMP, and then we have two  
4           requests for relief, a variance and a special  
5           exception presumptive approval to also argue. And  
6           at some point, I would like to make a very brief  
7           closing at the close of the applicant's matter. So  
8           without further ado, I could call up the first  
9           witness, if you would like, on the mitigation  
10          aspects.

11                   CHAIRMAN COIA: Okay. Please proceed.

12                   MS. MAIN: Thank you. I'd like to call up  
13           Dr. Kite-Powell. And maybe you can guide us on the  
14           best spot to stand, if you'd like.

15                   MR. MOORE: You can have him stand either  
16           right next to the table, or if he wants to sit down  
17           at the table, he can do that, too.

18                   MR. KITE-POWELL: I don't need to sit  
19           down, but I don't want to block anyone's view of  
20           the screen, that's my main problem, and I really  
21           don't want to turn my back to anyone either, but I  
22           think that may be unavoidable. Sorry.

23                   MS. SAVAGE: Oh, you can turn your back to  
24           me.

1 MR. KITE-POWELL: So is it okay if I stand  
2 here? Can everyone see okay?

3 MS. MAIN: Is this okay for you?

4 MR. CIOCHETTO: You -- Robin, you may want  
5 to move a little bit.

6 MS. MAIN: Does that work?

7 MR. CIOCHETTO: That's better.

8 MS. MAIN: Tony, you want to swear in the  
9 witness.

10 MR. DeSISTO: I beg your pardon. Please  
11 raise your right hand. Do you swear or affirm to  
12 tell the truth, the whole truth, and nothing but  
13 the truth, so help you God?

14 MR. KITE-POWELL: I do.

15 MR. DeSISTO: Please state your name and  
16 spell it for the record.

17 MR. KITE-POWELL: My name is  
18 Hauke Kite-Powell. H-A-U-K-E, is the first name,  
19 K-I-T-E, hyphen, P-O-W-E-L-L, is the last name.

20 MS. MAIN: Great. Thank you,  
21 Dr. Kite-Powell.

22 EXAMINATION

23 BY MS. MAIN:

24 Q. Dr. Kite-Powell, where do you work?

1 A. I work at the Woods Hole Oceanographic Institution  
2 on Cape Cod.

3 Q. And how long have you worked for -- may I call it  
4 Woods Hole for short?

5 A. Of course.

6 Q. Okay. How long have you worked for Woods Hole?

7 A. I first came there as a student in 1985, and I've  
8 been there full-time since 1992.

9 Q. And what is your position at Woods Hole?

10 A. My title is research specialist in the Marine  
11 Policy Center at the Oceanographic Institution.

12 Q. And could you briefly give the Council a  
13 description of your educational background.

14 A. Sure. I have an undergraduate degree in marine  
15 engineering and Naval architecture, and I did  
16 graduate work in technology, policy, and economics,  
17 and management.

18 Q. And your Ph.D.?

19 A. My Ph.D. is in ocean systems management from MIT.

20 Q. Great. And prior to joining Woods Hole, briefly  
21 describe your professional background, meaning the  
22 job you held before Woods Hole.

23 A. I have been at Woods Hole really my whole life. So  
24 my job before that was student. That's probably

1 the best way to describe it.

2 Q. And, Dr. Kite-Powell, are you familiar with the  
3 project Revolution Wind?

4 A. I am.

5 Q. Okay. Have you performed any work for  
6 Revolution Wind?

7 A. Yes, I have.

8 Q. And please describe briefly -- and we'll get into  
9 more details about the specific nature of the  
10 work -- but just describe, in an overview, what  
11 work you've done for Revolution Wind.

12 A. The work that I did for Revolution Wind, with my  
13 colleagues from Woods Hole, is to examine the data  
14 on fisheries landed value generated from fishing in  
15 and around the Revolution Wind areas and then to  
16 estimate what portion of that value in the future  
17 might be exposed to the development of that project.

18 Q. We're going to hear that word, "exposed." Can you  
19 just describe what you mean by, "exposed to the  
20 project."

21 A. Yeah. By, "exposed," I mean the value that may be  
22 foregone to the fishing industries as a result of  
23 the development of the project. If you assume, in  
24 the baseline scenario where the project isn't

1 developed, that fisheries value continues to be  
2 generated the way it has been and with the project,  
3 there may be some loss of that value, that  
4 difference is the exposure, what I call the  
5 exposure.

6 Q. Okay. And is another word for that impact, as  
7 well, on the project?

8 A. You can call it impact, yes. When we use impact in  
9 our analysis, we typically mean not just the landed  
10 value of the fish but also the induced and indirect  
11 economic effects that that landed value generates  
12 in the state of Rhode Island, and I'll talk more  
13 about that later.

14 Q. Great. Thank you. And, Dr. Kite-Powell, could you  
15 please give the Council a description of the other  
16 members of the Woods Hole group who worked with you  
17 on the Revolution Wind project.

18 A. Sure. My colleagues, Dr. Di Jin -- Di Jin is here  
19 with us this evening -- and Dr. Michael Weir, both  
20 also at the Marine Policy Center, worked with me on  
21 the analysis directly. Dr. Di Jin is a marine  
22 resource economist and has been working at  
23 Woods Hole I think almost as long as I have, and  
24 Michael Weir is a more junior economist who

1 recently joined us.

2 Q. Thank you. And so they worked on your -- the  
3 presentation that you're making tonight, correct?

4 A. They did, yes.

5 Q. Okay. And, Dr. Kite-Powell, have you worked on any  
6 other wind farm projects?

7 A. Yes. We did similar work for the South Fork Wind  
8 project, and we are currently engaged in work also  
9 for the Sunrise project.

10 Q. And are you familiar with the area of  
11 Narragansett Bay where Revolution Wind will be  
12 located, both, you know, the export cables going  
13 through state waters and then out to federal  
14 waters?

15 A. I am. Actually, I've been sailing in these waters  
16 probably almost as long as I've been working at  
17 Woods Hole so I know the area well.

18 Q. All right. And have you done any work in that area  
19 of Rhode Island Sound where the export cables will  
20 be located?

21 A. Yes, for this project --

22 Q. Right.

23 A. -- I've been working there.

24 Q. So let's turn specifically to the work that you did

1 for Revolution Wind's analysis of the export cables  
2 in state waters in Rhode Island. Did you prepare  
3 any written work product?

4 A. We did. We prepared a report describing the  
5 baseline values that we estimated and the exposure.

6 Q. Okay. Would you walk us through your report on the  
7 baseline values and the exposure as you've defined  
8 it previously for Revolution Wind in state waters.

9 A. Sure.

10 Q. And I think you've got some demonstratives that may  
11 help you with that.

12 A. I do. As I mentioned, I worked on this together  
13 with Dr. Di Jin and Michael Weir from the  
14 Woods Hole Oceanographic Institution. And the  
15 fundamental question that we tried to address, as  
16 we've already mentioned, is what are the baseline  
17 values, the historical values of fisheries  
18 activities around the state waters portion of the  
19 Revolution Wind export cable and how might those  
20 values change in the future with the development of  
21 that project.

22 We want to do this analysis in a way that  
23 can be replicated by others, and so we want to rely  
24 on data that are publicly available, that are



1 readily accessible. There are two sources of data  
2 on commercial fishing that we use. One is NOAA.  
3 The other is the Rhode Island DEM. And I'll talk  
4 more about both of those.

5 We also needed data on for-hire charter  
6 fishing in the area, and that information is not  
7 available in any publicly accessible data set, so  
8 we actually conducted a survey of charter captains  
9 to get that information. And as I mentioned, we  
10 then took the values that came out of that analysis  
11 and estimated the induced and indirect impacts that  
12 those activities have in the state of Rhode Island.

13 And what we mean by that is, if you take  
14 the landed value of the fish that are caught in  
15 these areas, those fish are brought ashore in  
16 Rhode Island. The economic impact of that is not  
17 just the value of those fish that are landed but  
18 also the ancillary activities that are supported by  
19 that. And that includes things like the purchases  
20 of ice and other expendables by the fishing boats.  
21 It includes things like the expenditures that the  
22 crew on these boats make in businesses in  
23 Rhode Island. All of that is linked to the value  
24 of the fish that are landed, and so that's an

1 important part of the total impact estimation.

2 And once we had the baseline values, we  
3 then went through a process of estimating the  
4 exposure, looking at construction effects, possible  
5 effects during operations, and effects during  
6 decommissioning of the cable. And I'll talk more  
7 about each of those.

8 This is the overall project map that I  
9 think everyone here is very familiar with. The  
10 part that we're concerned with is just this purple  
11 section of the export cable route in state waters.  
12 So this is the state-federal waters boundary.

13 And so our first question is, what are the  
14 baseline commercial values of fish caught around  
15 that cable route in state waters? If you look at  
16 the NOAA data, the NOAA data set we were able to  
17 obtain is for the entire export cable route. So  
18 starting all the way at the project site through  
19 federal waters and through state waters. And those  
20 data suggest that the value of landings around that  
21 cable route are something on the average, on the  
22 order of \$5,000 per square kilometer per year.  
23 That's for the entire route in the NOAA data.

24 MR. GOMEZ: Excuse me, but that was per

1 kilometer or per --

2 THE WITNESS: Per square kilometer.

3 MR. GOMEZ: Okay. Thank you.

4 A. And we believe that that is an underestimate of the  
5 value of landings from the state waters portion  
6 because the NOAA data doesn't include landings from  
7 vessels that carry only state permits. They focus  
8 only really on the federal vessel permit landings.  
9 The NOAA data are better for estimating landings  
10 from federal waters and less complete when it comes  
11 to state waters.

12 So we looked at, also, data from the  
13 Rhode Island Department of Environmental Management.  
14 DEM collects fisheries data for a large region  
15 called Area 539. That's roughly sketched here.  
16 And that area includes the cable route, but it also  
17 includes a lot of other waters. In fact, it  
18 extends further to the south than this map does,  
19 and it extends all the way up to the northern  
20 reaches of the bay up here.

21 If you look at that data set, the average  
22 value of landings from that entire area is about  
23 \$47,000 per square kilometer per year. So ten  
24 times the value that the NOAA data suggests for the

1 cable route. But that's also both for state waters  
2 and federal waters in this area. And we think,  
3 again, that is likely also an underestimate of the  
4 value from the state waters portion of the cable  
5 route.

6 We think the best way to get at that is to  
7 assume that the NOAA data are reflective of what's  
8 being caught in the federal waters portion of the  
9 cable route and then to assume that that value  
10 applies to the federal waters portion of Area 539  
11 also on a per square kilometer basis, and then  
12 calculate from that how much has to come from the  
13 state waters portion of Area 539 and the RIDEM data.

14 We have to go through this process  
15 because, unfortunately, it's not possible to  
16 disaggregate the RIDEM data spatially. RIDEM  
17 doesn't have information about how that landing is  
18 distributed over Area 539. But when we take the  
19 approach that I've described, we come to a value  
20 for landings from the state waters' portion of the  
21 cable route of just over \$100,000 per square  
22 kilometer per year. And that is the baseline value  
23 on which we think these data allow us to settle  
24 with some degree of confidence.

1           If you then take that per square kilometer  
2 value and apply it to the export cable corridor,  
3 which we define here as two, 180-meter wide lanes,  
4 one for each of the two export cables, you get a  
5 baseline estimate of \$1.41 million per year in 2020  
6 dollars as the average landed value in Rhode Island  
7 from commercial fishing in these two corridors over  
8 the last ten years or so. And that is what we  
9 assume to be the baseline value also for the  
10 future, what would continue to happen if the  
11 project were not developed.

12           For a wider working area that we define  
13 for purposes of thinking about exposure, a  
14 1.6 kilometer-wide working area around the export  
15 cable routes, that value is \$6.28 million per year.  
16 And if you include, on top of the 1.4 million from  
17 the export cable corridors, the indirect and  
18 induced effects in the state of Rhode Island, you  
19 have total baseline annual impacts of just over  
20 \$3 million per year from landings from those export  
21 cable corridors.

22           We think this is a conservative estimate  
23 because, in reality, the two export cables are not  
24 always more than 180 meters apart, and so the

1 actual area that is affected by the cables is less  
2 than what we use in this calculation. So that's  
3 our baseline assumption for commercial fishing,  
4 about 3 million in annual impacts from the export  
5 cable corridors.

6 For charter fishing, as I mentioned, there  
7 is no data set we can refer to. So Revolution Wind  
8 agreed to support a survey of charter captains that  
9 we conducted from Woods Hole, an online survey, and  
10 it allowed charter captains to provide information  
11 about where they fish in this area and how often.  
12 And you can see on this map image some of the  
13 fishing locations they've identified in and around  
14 the cable corridor in state waters.

15 They also provided information about how  
16 many people were on those fishing trips. And we  
17 have information from NOAA on the average revenue  
18 from charter fishing per angler for these  
19 operations. So with that and a scale factor that  
20 reflects how many total boats we think operate in  
21 this area, compared to how many responded to the  
22 survey, we can calculate the annual impact  
23 associated with charter fishing around the cable  
24 routes. And this estimate is actually for the

1 entire yellow area that you see in this map image  
2 here. So it's a much bigger area than just the  
3 cable corridors themselves.

4 That total annual impact, including a  
5 multiplier of the same sort of induced and indirect  
6 effect multiplier as we used for commercial  
7 calculations, leads to an annual impact from  
8 charter fishing, at the high end, of about \$340,000  
9 per year. So that is the baseline annual charter  
10 fishing impact we estimate for that yellow area  
11 around the export cable.

12 So just to sum up the baseline numbers one  
13 more time, commercial fishing Rhode Island landings  
14 from the state waters' portion of the export cable  
15 corridor, about 1.4 million per year, with the  
16 induced and indirect effects associated with those  
17 landings, it's 3.06 million in economic impact each  
18 year in Rhode Island. And, for charter, fishing  
19 it's about 211,000 in revenue and about 342,000 in  
20 total economic impact.

21 So then the question is, if that's the  
22 baseline, what fraction of that could we expect to  
23 see affected somehow by the development of the  
24 project? And to estimate that, we consider a

1 number of different effects. There are effects  
2 associated with construction, there are effects  
3 associated with operations, and there are effects  
4 associated with decommissioning. And I'll talk  
5 about each of those in more detail, so I don't have  
6 to read this whole table.

7 The work on the export cable is scheduled  
8 for a period of about six months, mainly in the  
9 second half of 2024. And we assume that, during  
10 that work period, there will be two kinds of  
11 effects. One is that, in the vicinity of the  
12 working vessel on the cable route, there will be  
13 periods when fishing boats can't access the area in  
14 the immediate vicinity of the cable vessel. So we  
15 call that access constraint.

16 The second effect is that because of the  
17 activities of that vessel, some finfish will be  
18 displaced from the area. They'll leave because of  
19 the vessel activity. And some shellfish may be  
20 lost to fishing because of the way the bottom is  
21 disturbed and the cable is deployed and so on. And  
22 so there are two categories of effects.

23 For the first, for that constrained  
24 access, we assume two things. We assume that



1 during the entire six-month window of construction  
2 activity for the cable, at any given time,  
3 5 percent of that cable route length is being  
4 worked on, and, for a width of 1.6 kilometers  
5 across that cable route, that 5 percent area is  
6 inaccessible to fishing. That's for a period -- a  
7 total period of six months.

8 In addition to that, we also assume that  
9 for two months there's effectively no fishing on  
10 the export cable corridors, the narrow corridors  
11 themselves where the cables are. That's probably  
12 redundant. I think one could argue that the first  
13 effect alone really accounts for all of the access  
14 constraint, but as in all cases, we try to be  
15 conservative and, if anything, err on the side of  
16 overestimating the exposure. So that's the access  
17 constraint.

18 For availability, we assume that the  
19 shellfish that are in the -- on the bottom in the  
20 cable corridors are lost to fishing in the way  
21 described here. That is mobile species, like  
22 lobster and crab, 25 percent reduced for one year,  
23 and nonmobile shellfish for four years because it  
24 takes them longer to repopulate. And we also

1 assume that, for the entire 1.6 kilometer-wide  
2 working area, there's a 10 percent reduction in all  
3 landings for one year around the construction  
4 period.

5 We don't expect any effects during  
6 operations because, in our assessment of the way  
7 the cable is being deployed, fishing should be able  
8 to resume normally after construction is finished  
9 for the duration of the operation of the project.  
10 For decommissioning, we assume a similar set of  
11 effects as during construction but less severe and,  
12 of course, further out into the future, and so the  
13 present value of those effects is smaller.

14 So if you go through the calculation  
15 implied by those assumptions, you get these numbers  
16 here. The construction activities result in a loss  
17 of landed value on the order of \$854,000. The  
18 decommissioning activities add another 112,000.  
19 These are both discounted to 2020 dollars from the  
20 years in which those activities take place. So  
21 that's \$966,000 in present value of lost fisheries  
22 landings, which translate to 2.09 million in  
23 impacts if you add the induced and indirect effect.

24 The charter fishing assumptions here,

1 based on taking the baseline values I showed before  
2 and assuming that those are lost for a period of  
3 six months -- in fact, that's probably an  
4 overestimate because the construction activity is  
5 mainly in the second half of the year, in the  
6 winter, when there is less charter fishing than  
7 earlier in the year; but, again, it's a  
8 conservative assumption.

9 So the total estimated exposure, including  
10 induced and indirect effects, is 2.26 million in  
11 2020 dollars. I think that is the last of my  
12 slides.

13 Q. Thank you, Dr. Kite-Powell. Just a few more  
14 questions to wrap up. Your report discusses  
15 potential impacts to commercial fishing and  
16 for-hire charter fishing. Did Woods Hole do any  
17 analysis of the private recreational fishing that  
18 may be exposed for Revolution Wind? And by,  
19 "private recreational fishing," I mean, you know,  
20 people going out on the weekend in their own  
21 private boat to either fish or do other activities.  
22 Was that considered?

23 A. Yes, we did think about that as well. Private  
24 recreational fishing is important in the state of

1 Rhode Island, just as it is in Massachusetts and  
2 elsewhere around the coast. There are thousands  
3 and thousands of private fishing trips that take  
4 place every year in these waters, and it  
5 contributes to the economy of the state in a  
6 significant way.

7 But if you look at the fraction of those  
8 thousands and thousands of trips that coincide with  
9 the export cable corridor, that's a much smaller  
10 number. And if you then look at the fraction of  
11 those that are potentially impacted, because during  
12 this six-month period, there is a vessel operating  
13 somewhere along that route, that number gets very  
14 small.

15 And then, it's also the case that the  
16 people who maybe wanted to fish exactly where that  
17 cable operating boat is on that given day have  
18 other places they can go instead. That may not be  
19 their preferred choice, but it's not the case that  
20 they can't go fishing somewhere else.

21 And so trying to estimate with any sort of  
22 confidence that very small fraction of exposure to  
23 recreational fishing, I think is fraught and  
24 extremely uncertain. My own estimate is that the

1 impact of that is far below \$100,000 per year for  
2 the state as a whole.

3 Q. And does that estimate, of far below \$100,000 per  
4 year, take into consideration at all the time of  
5 year when Revolution Wind will be doing its work in  
6 the west passage in Rhode Island Sound?

7 A. It does, yeah. And it's mainly in the fall and  
8 winter, and so the number of private fishing trips  
9 likely affected by that is miniscule compared to  
10 the total of trips that take place in Rhode Island.

11 Q. Thank you. And, Dr. Kite-Powell, did you receive  
12 any feedback from others in the fishing community  
13 to the work that you presented today?

14 A. We did, from several different sources. And I want  
15 to acknowledge this because it helped us improve  
16 our analysis, I think, in many ways. We had direct  
17 input from fishermen who we spoke to primarily in  
18 telephone interviews. We had very constructive  
19 interactions with Todd Gilcoose (phonetic) and  
20 indirectly with the FAB, in going back and forth on  
21 some of the assumptions in helping us improve our  
22 estimates. And we had very helpful reviews of our  
23 reports by two fisheries experts who are also in  
24 the room today, Rob Griffin and Steve Cadrin. And

1 I think all of that review and feedback really  
2 helped us gain more confidence in the work that we  
3 represent.

4 Q. Great. Thank you.

5 MS. MAIN: I have no further questions for  
6 Dr. Kite-Powell.

7 CHAIRMAN COIA: Any questions from Council  
8 members of the witness? Mr. Gomez.

9 MR. GOMEZ: That was an eye chart for me.  
10 I don't know. I've got 20/15 vision, but I have  
11 problems with it, I think.

12 We heard at the last session, I believe,  
13 that we talked about how quickly the bottom would  
14 basically start to recover, and it was a very short  
15 time. The way -- the information I get from you is  
16 that you're considering, I think, a much longer  
17 time. Do you have any idea on the recovery time  
18 that we're talking about? And the other question,  
19 how many kilometers of cable are we worried about  
20 relative to Rhode Island? Is it 23 from the site?  
21 What's the --

22 MS. MAIN: It's 23 miles.

23 MR. GOMEZ: Twenty-three miles?

24 THE WITNESS: Yeah, 30-odd kilometers.

1 MR. GOMEZ: The other thing, I mean,  
2 you've got some big numbers there, and it just  
3 seems that, you know, as you're putting this in  
4 you've got some speed of getting it there so it's  
5 only going to be probably a small segment, maybe  
6 small, segment of the bottom being disturbed at any  
7 point in time. And, in my opinion, that would  
8 reduce your numbers considerably, but, you know,  
9 I'm not ready to think that way yet. I know the  
10 fishermen are very upset and things. But between  
11 the last briefing we had with the -- you know, the  
12 sediment settling pretty quickly and if you've done  
13 all the pre-surveys on rocks and submerged objects  
14 and things, the numbers just seem very large to me  
15 given the actual circumstances. And I don't  
16 know -- I guess I'm allowed to talk about  
17 stipulations or not, am I, in the staff report at  
18 this point?

19 MR. DeSISTO: It's premature at this  
20 point.

21 MR. GOMEZ: Okay. Thank you.

22 THE WITNESS: If I may just respond  
23 briefly. I think I want to emphasize, again, that  
24 whenever we had a range of values that we thought

1           were reasonable to consider -- for example, for how  
2           long it might take for an area to be repopulated by  
3           lobster or something like that -- we always tried  
4           to err on the side of conservative. That is,  
5           overestimating. And so you're right, I think, some  
6           of these assumptions about duration are probably  
7           excessive; but, again, we tried to err on the side  
8           of overestimating exposure.

9                       MR. GOMEZ: Okay. You know, I just -- I  
10           was able to follow it along pretty well. I just  
11           thought we were getting -- you were very  
12           conservative.

13                      THE WITNESS: We tried to be, yes. That  
14           was intentional.

15                      MR. GOMEZ: Thank you.

16                      CHAIRMAN COIA: Any other questions? Yes,  
17           Ms. Hall.

18                      MS. ROBINSON-HALL: I have a question and  
19           just a point of clarification. In your report, on  
20           Page 19, you talk about the construction schedule.  
21           And it says here it will take place during the  
22           third and fourth quarters of 2024. And I think you  
23           may have just said before that it would occur in  
24           the fall and the winter. So I'm just -- maybe a



1 point of clarification, I don't know if those  
2 are -- I'm pretty sure -- I may have misheard you.

3 THE WITNESS: Maybe I misspoke, too. Fall  
4 and winter are not precise terms, but I think the  
5 precise construction schedule has been spelled out  
6 by the project developer, and I believe it begins  
7 with work sometime in September and extends to  
8 January. So it's more or less the third and fourth  
9 quarter with a little bit of overlap into January.

10 MS. ROBINSON-HALL: So when you say in the  
11 report that it will take place in the third and  
12 fourth quarters, you're saying now, like, the very  
13 end of the third quarter, September? Because I'm  
14 just going back to your figure with the seasonality  
15 question and the seasonality of the highest  
16 landings. I just want to understand relative to  
17 those landings being exceedingly high, in that  
18 third quarter in particular and going into the  
19 fourth quarter, how that factors into your analysis  
20 relative to exposure.

21 THE WITNESS: Yeah. So the third quarter,  
22 as you note, September is at the end of the third  
23 quarter. It's really mostly the fourth quarter  
24 that's relevant. So we did not try to estimate the

1 seasonal component of the RIDEM data because the  
2 RIDEM data is what we really base our values on  
3 here, and we don't have consistent seasonal  
4 information for that data set like we do for NOAA.  
5 So the NOAA data does have seasonal information.  
6 We think that's mainly relevant for what's going on  
7 in federal waters. And so for the analysis here,  
8 we did not assume any seasonal difference.

9 MS. ROBINSON-HALL: Okay. Thank you.

10 CHAIRMAN COIA: Any other questions? Yes,  
11 Mr. Izzi.

12 MR. IZZI: Yeah, I just want to focus on  
13 your exposure numbers. That's a number that takes  
14 into account the exposure of about 25 years in time  
15 and reduces it to present value 2020 dollars; is  
16 that correct?

17 THE WITNESS: Yes. It -- yes. It  
18 discounts the values from the construction year and  
19 the decommissioning year back to 2020 dollars.  
20 That is correct.

21 MR. IZZI: Okay. There's a big gap in  
22 between during that gap of 23 or 24 years. Were  
23 you assuming that there would be no exposure?

24 THE WITNESS: That's correct.

1 MR. IZZI: Because there was no activity?

2 THE WITNESS: There was no activity, and  
3 our assumption is that fishing can go on more or  
4 less the way it did before during that time period.

5 MR. IZZI: So is there any way to break  
6 out the initial exposure during construction and  
7 give us a number for that period and then the --  
8 and exposure for the decommissioning process?

9 THE WITNESS: So that's what I tried to do  
10 here. So this 854,000 is the exposure associated  
11 with construction. And the 112,000 is the exposure  
12 associated with decommissioning, but they look very  
13 different because the decommissioning value is  
14 discounted from far in the future to the present  
15 dollar. Otherwise, they'd be much closer together.  
16 And in the report, we have it broken down in finer  
17 detail also.

18 MR. IZZI: And I just want to make sure,  
19 you're comfortable with the charter fishing value  
20 of 340,000 a year?

21 THE WITNESS: Yes, we are. I think that  
22 given the area that it reflects, it's a small  
23 portion of the total Rhode Island charter fishing  
24 extent. And if you look at the information on the

1 total value of Rhode Island charter fishing, I  
2 think that fraction makes sense, generally  
3 speaking. But we didn't try to estimate it that  
4 way. We tried to estimate it from what the charter  
5 captains actually told us they were doing.

6 MR. IZZI: All right. Thank you.

7 CHAIRMAN COIA: Anything else?

8 MR. GOMEZ: Just for purposes of  
9 discussion, you know, it's my experience, and I'm  
10 very familiar with the Sakonnet River region and  
11 the fishermen over there, and they do come over but  
12 usually not in the bay here, out at Cox's and  
13 things like that, but the whole fishing industry  
14 has changed so drastically because of climate  
15 change, in the last four or five years even. I  
16 mean, lobsters are getting to be nonexistent in the  
17 Sakonnet River, and the black sea bass has taken  
18 over. And I don't know the commercial value. We  
19 do have traps set over there for fish. But I don't  
20 think -- I know you have them off of Newport. I  
21 don't think you have any over in that area.

22 So, again, I think it's pretty  
23 conservative because I think the fishing -- with  
24 the exception of oysters and, you know, the muscle

1 farms and the kelp farms and those types of farms,  
2 which as I look through the material don't appear  
3 to be that close to where the cable lay is. So,  
4 again, I guess, I see it as being conservative.  
5 You know, in a 25-year bite, it's just changing so  
6 fast, which I'm sure you're aware of. And I don't  
7 know what -- the commercial market now is becoming  
8 the oysters and the kelp and muscles. And even the  
9 muscles have trouble with birds and other things  
10 stripping them and storms and things, so I keep  
11 getting back to it's really, really conservative,  
12 what I'm looking at. I would expect you would  
13 agree with me because it's to your benefit to do  
14 that but --

15 THE WITNESS: It is what we tried to do.  
16 And I think you're right, it's very difficult to  
17 try to forecast what the true baseline is for the  
18 next 30 years of fisheries landings.

19 MR. GOMEZ: It's going to be real big  
20 changes.

21 THE WITNESS: Climate change, fisheries  
22 management changes, you know, all kinds of things,  
23 seafood market.

24 MR. GOMEZ: The thing is, the other

1 fisheries that are coming in to take the place of  
2 what we consider the norm at this point and getting  
3 back to things like the kelp farms, and they're  
4 coming up with different things that they are  
5 trying to farm in aquaculture that we need to have  
6 a little foresight in that and try not to ruin  
7 those best areas. But I think you're pretty much  
8 coming up through the middle of the area there. It  
9 looks like it's been mapped out fairly well.

10 THE WITNESS: Yes, I think that's true.  
11 If you look at the areas of Rhode Island waters  
12 where aquaculture is growing rapidly, this is not  
13 in the way of those.

14 MR. GOMEZ: Just an observation.

15 CHAIRMAN COIA: There are no more  
16 questions of Council members.

17 MS. MAIN: Thank you. Thank you,  
18 Dr. Kite-Powell. We have three more witnesses, two  
19 are very short, and then we'll wrap up with our  
20 mitigation proposal to the Council.

21 CHAIRMAN COIA: Okay.

22 MS. MAIN: Okay. My partner,  
23 Christine Dieter, will present the next two  
24 witnesses.

1 MS. DIETER: Mr. Chair, if I may, I'll  
2 call our next witness, Dr. Ben Cotts.

3 MR. DeSISTO: Please raise your right  
4 hand. Do you swear or affirm to tell the truth,  
5 the whole truth, and nothing but the truth, so help  
6 you God?

7 THE WITNESS: I do.

8 MR. DeSISTO: Please state your name and  
9 spell it for the record.

10 THE WITNESS: My name is Benjamin Cotts.  
11 That's B-E-N-J-A-M-I-N, C-O-T-T-S.

12 EXAMINATION

13 BY MS. DIETER:

14 Q. Dr. Cotts, where do you work?

15 A. I work for Exponent in the electrical engineering  
16 and computer science practice.

17 Q. And what's your position at Exponent?

18 A. I am a principal engineer.

19 Q. Could you briefly describe for the Council your  
20 relevant educational and professional background.

21 A. Certainly. I have an electrical engineering degree  
22 from the University of Portland, as well as a  
23 master's and a doctorate in electrical engineering,  
24 which I received from Stamford University. Since I

1 graduated and joined Exponent, I have been working  
2 primarily in my area of speciality, which is  
3 electromagnetics. That involves electromagnetic  
4 evaluations from anything from medical devices to  
5 U.S. military and, obviously, electric and magnetic  
6 fields from transmission lines such as the  
7 Revolution Wind project.

8 Prior to joining Exponent, I was an  
9 international science outreach manager, and my  
10 role there was to support the International  
11 Heliophysical Year and International Space Weather  
12 Initiative, a program sponsored under the auspices  
13 of the United Nations and NASA. As part of that  
14 project, my role was to help bring the science of  
15 electromagnetics to developing countries. And I  
16 was cofounder of an international conference series  
17 with that purpose, and I cofounded that and  
18 attended those conferences as an official  
19 representative of NASA and the UN.

20 Q. Did you perform any work for Revolution Wind?

21 A. Yes, I did.

22 Q. Could you describe that work.

23 A. Certainly. I performed the electrical engineering  
24 modeling of the magnetic fields from the export



1 cable and the inter-array cables from the  
2 transmission line.

3 Q. What does your modeling involve?

4 A. In general, it takes the input data from the  
5 transmission line, looking at the cable parameters,  
6 the size of the cable, how much current is going to  
7 be flowing on the cable, putting that together into  
8 an engineering model to calculate the magnetic  
9 field levels that are going to be coming from the  
10 transmission line, which are measured in units  
11 called milligauss.

12 Q. What did your modeling find?

13 A. There are two main findings from the modeling. The  
14 first is, intentionally, was that we develop it to  
15 be very conservative. So the field levels are  
16 relatively conservative compared to what would  
17 actually be out there.

18 The two evaluations in particular were  
19 over the portion of the route, which is covered by  
20 a concrete mattress. The maximum magnetic field  
21 level at maximum loading would be about  
22 1,025 milligauss, similar to what Mr. Skenyon cited  
23 in the testimony previously.

24 We also did a calculation of the field

1 levels where the cable would be buried to a depth  
2 of one meter, which is conservatively low compared  
3 to the four to six feet specified for the project.  
4 And at that location the magnetic field level was  
5 82 milligauss. I bring that up, because as  
6 Mr. Skenyon described it in his report, this is a  
7 level at which there were a significant reduction  
8 in all potential theoretical impacts.

9 The second aspect of the modeling that  
10 this showed is that the field levels decrease very  
11 rapidly with distance. So that even for this case  
12 where you're looking at just a one-foot thick  
13 covering of the mattress, by the time you get  
14 approximately three to three-and-a-half feet to the  
15 side of that -- of the center of the cable, the  
16 field level has decreased from the 1,025 milligauss  
17 down to about 82 milligauss, similar to what it  
18 would be for the burial case.

19 One other thing, if you go even further  
20 away, as you go about ten feet to the side of the  
21 mattress or ten feet to the side of the cable, the  
22 calculated magnetic field levels, whether buried to  
23 a depth of one meter or covered by the concrete  
24 mattress, the magnetic field level is about half a

1 milligauss or so.

2 Q. So if I can recap that. What you first described  
3 is when you're at peak loading, which in this case  
4 would be about 704 megawatts, and you're right on  
5 top of the cable, that's when you're getting that  
6 maximum value that you described?

7 A. That's correct. And that's also assuming that it's  
8 just got the one foot thick mattress covering on  
9 top of it.

10 Q. And whether it's buried or covered by the mattress,  
11 once you're about three-and-a-half feet from the  
12 center of the cable to the side, you're seeing  
13 reduced readings to about 82 milligauss?

14 A. That's correct.

15 Q. And then, when you get out to ten feet on either  
16 side of the cable, you're saying, at that point,  
17 you've reduced it to under one milligauss?

18 A. That's correct.

19 Q. And you mentioned before that I think your modeling  
20 was intended to be conservative. Are there factors  
21 that it didn't account for?

22 A. Yes. The first aspect is that, as I mentioned  
23 before, for the buried portion of the cable, we  
24 modeled it at a one meter burial depth to the top

1 of the cable compared to the four to six feet as  
2 part of the project. So that will reduce the  
3 magnetic field levels over the portion of the cable  
4 where it's buried.

5 In addition, there is an armoring around  
6 the outside of the cable, a steel armoring, and  
7 that armoring will, in fact, reduce the magnetic  
8 field level from the cable. That was also not  
9 included in the modeling. It should reduce the  
10 magnetic field of everything I said by about a  
11 factor of two or so.

12 And then the last aspect, as you pointed  
13 out, is that this modeling that was cited was done  
14 for the maximum output of the wind farm, the peak  
15 loading. So every turbine is generating the  
16 maximum amount of power all at the same time.  
17 That's not going to happen most of the time. A  
18 more typical average loading is going to be on the  
19 order of 50 to 75 percent of that.

20 So if you take that 1,025 milligauss  
21 number that I talked about, a one-foot thick  
22 mattress, and include these other factors, such as  
23 the reduction from the armoring and the reduction  
24 from the loading of the cable, you're probably

1 looking at a maximum number that's closer to maybe  
2 250, 350 milligauss compared to that 1,025.

3 Q. Dr. Cotts, are you able to describe whether the  
4 milligauss levels you've just walked us through  
5 will affect fish and crustacean behaviors in  
6 Narragansett Bay?

7 A. That's an excellent question, and as an electrical  
8 engineer, I'm not the right person to answer that.  
9 Fortunately, my colleague, Dr. Palmquist, has a  
10 specialization in that area.

11 MS. DIETER: Mr. Chair, if I may, I would  
12 call our next witness, Dr. Katherine Palmquist.  
13 And then I can leave them both here if the Council  
14 has any questions after she's testified?

15 CHAIRMAN COIA: That's fine. Any  
16 questions of Dr. Cotts right now from anyone?

17 MR. GOMEZ: I have some, but --

18 CHAIRMAN COIA: Do you want to wait?

19 MR. GOMEZ: -- I don't know if we need to  
20 wait, relative to issues that we just went through.  
21 Do you want us to wait?

22 CHAIRMAN COIA: Sure. Let's have the next  
23 witness testify.

24 MS. DIETER: If I could have Dr. Katherine

1 Palmquist.

2 MR. DeSISTO: Please raise your right  
3 hand. Do you swear or affirm to tell the truth,  
4 the whole truth, and nothing but the truth so help  
5 you God?

6 THE WITNESS: I do.

7 MR. DeSISTO: Please state your name and  
8 spell it for the record.

9 THE WITNESS: It's Katherine Palmquist,  
10 K-A-T-H-E-R-I-N-E, P-A-L-M-Q-U-I-S-T.

11 EXAMINATION

12 BY MS. DIETER:

13 Q. Dr. Palmquist, where do you work?

14 A. I work for Exponent in the eco sciences practice.

15 Q. And what's your position with Exponent?

16 A. My position is senior managing scientist.

17 Q. Could you describe your relevant background for the  
18 Council.

19 A. Sure. I have undergraduate degrees in entomology  
20 and communications from Washington State  
21 University. I did my doctoral research at  
22 Oregon State University in ecotoxicology. I have  
23 15 years' experience in conducting ecological risk  
24 assessments and natural resource damage

1 assessments, with the past eight years looking at  
2 EMF issues.

3 Q. And are you familiar with the Revolution Wind  
4 project?

5 A. I am.

6 Q. Did you work with Dr. Cotts on --

7 A. I did.

8 Q. -- the project?

9 Can you answer the last question I posed  
10 for Dr. Cotts, and I'll repeat it for you. Are  
11 you able to describe whether the milligauss  
12 levels, that Dr. Cotts referred to, will cause any  
13 effect to fish and crustacean behaviors in  
14 Narragansett Bay?

15 A. I can. There are no predicted effects to fish and  
16 crustaceans in the bay.

17 Q. And why is that?

18 A. Yeah, so based on all of the available research  
19 with AC EMF, the levels modeled by my colleague  
20 Ben, do not -- are not detectible by fish or  
21 crustaceans. And this is because these organisms  
22 can detect the geomagnetic field, which is static  
23 and zero hertz, the same way a DC field is zero  
24 hertz. They do this because they have tiny

1 magnetic particles in their bones and organs, and  
2 they interact with the geomagnetic field and the DC  
3 field, kind of like a compass. So just like you  
4 can take a compass out in your neighborhood and  
5 walk all under the AC lines and still detect  
6 geomagnetic north, the AC fields do not interact  
7 with these particles the way the DC fields do. And  
8 that's borne out by the research where fish and  
9 crustaceans have been exposed to these field  
10 levels of around a few hundred milligauss to  
11 1,100 milligauss and higher.

12 Q. You referred to something called, "AC EMF." What  
13 did you mean by that?

14 A. So the proposed cable for the Revolution Wind is  
15 alternating current so it oscillates at 60 hertz,  
16 and that's -- that is a frequency that is not found  
17 in nature, whereas the frequency of DC cables is  
18 zero hertz, same as the geomagnetic field. So  
19 there's a lot of similarities there, and they  
20 interact with those particles the same way. The  
21 60-hertz fields don't.

22 Q. So when you refer to the geomagnetic fields, that's  
23 referring to DC cables?

24 A. Well, it's the field that the earth produces that



1           these fish and crustaceans evolve to detect and  
2           help guide migration.

3       Q.   At the field levels we've been discussing, will  
4           there be any population level effects to fish and  
5           crustaceans?

6       A.   No.

7       Q.   Why not?

8       A.   So, again, there's no behavioral effects so the  
9           distribution will remain the same.  There have also  
10          been studies looking at effects on very sensitive  
11          life stages, primarily the embryonic life stages,  
12          and there's no impact on embryonic survival at the  
13          field levels predicts, even at peak loading along  
14          the cable routes.

15      Q.   Now, the Fishermen's Advisory Board has cited to  
16          some articles as part of their comments on export  
17          cables.  Are you familiar with those articles and  
18          studies?

19      A.   I am.

20      Q.   Are those studies relevant to the Revolution Wind  
21          export cables?

22      A.   Not this cable, no.

23      Q.   Why not?

24      A.   So the publications cited in that report kind of

1 fall into two categories. The first are DC cable  
2 studies. And like I said, those are not relevant  
3 because of the differences in the nature of the  
4 magnetic field and how they interact with those  
5 particles. And then the second part were review  
6 articles, which are too general for this type of  
7 assessment.

8 Q. So are there any AC or alternating current studies  
9 that you would find particularly relevant to the  
10 Revolution Wind export cable?

11 A. Yeah, there have been a series of studies conducted  
12 off the coast of California at 60 hertz AC cable  
13 sites. Two studies looking specifically at  
14 crustacean behavior relative to the AC cables and  
15 one looking at the population of fish,  
16 invertebrate, and other marine species along the  
17 cable sites.

18 So the first two use caged crab and looked  
19 to see whether the crab distribution relative to  
20 the cable change and whether they could cross the  
21 cable based on the energized state. So these  
22 studies looked at anywhere from 400 to 1,100  
23 milligauss and found no impact on crab behavior.  
24 They were neither more likely to be near the cable

1 or less likely to be near the cable, and they could  
2 cross with ease, which led the authors to conclude  
3 that there was no effects on trapping.

4 The third study was a multi-year survey of  
5 the populations at the cable, looking specifically  
6 at whether the energized state of the cable changed  
7 the species that were present or the numbers, and  
8 they found no effects on any of the fish or  
9 invertebrate species.

10 Q. And are you familiar with the 2006 study of the  
11 Nysted Wind Farm by dena that the FAB has  
12 referenced?

13 A. I am.

14 Q. And what did that study find?

15 A. Well, specifically that study did not find  
16 population level effects on the important species  
17 that they surveyed at the site. So they went out  
18 prior to the construction of the wind farm, took  
19 population surveys, and then did that again while  
20 the wind farm site was operating. And there was no  
21 difference in the catches from prior to after the  
22 operation. And they did look at EMF, but that  
23 section was entitled, "No Proven Effects in EMF."

24 Q. So I want to turn a little closer to home now and

1 talk for a minute about the Block Island Wind Farm.

2 You worked on the Block Island Wind Farm project?

3 A. I did.

4 Q. If you were to hear reports that as soon as the  
5 power was turned on at the Block Island Wind Farm,  
6 fishermen couldn't catch fish there anymore, what  
7 would your reaction to that be?

8 A. That is not in line with the research that's been  
9 conducted there.

10 Q. Can you describe that for the Council, what you  
11 mean by that.

12 A. Yeah. So there have been population surveys  
13 conducted at the Block Island Wind Farm, and  
14 similar to the previous studies that I just  
15 mentioned, looked at populations before and after.  
16 The surveys were also conducted in the vicinity of  
17 some of the cabling, the areas of high EMF, and  
18 there were no adverse impacts of any aspect of the  
19 wind farm on the population so they remained  
20 stable.

21 Q. And is there any possibility of getting that kind  
22 of behavioral effects that I've described of fish  
23 fleeing the area entirely from an AC cable?

24 A. Based on my review of the literature, there's only

1           been one time where a fish has been shown to react  
2           to a 60 hertz AC magnetic field, and that was a  
3           field level of 1.6 million milligauss generated in  
4           the lab.

5       Q.   And how does that level of milligauss compare to  
6           what we expect to see at the Revolution Wind cable?

7       A.   I believe it is somewhere on the order of 20,000  
8           times higher.

9       Q.   Is there any possibility of either the Block Island  
10          Wind Farm or the Revolution Wind Farm export cables  
11          generating 1.6 million milligauss?

12      A.   No.

13                   MS. DIETER:   Thank you.   I have no further  
14                   questions for either of these witnesses.

15                   CHAIRMAN COIA:   Any questions for either  
16                   witness?   Mr. Gomez.

17                   MR. GOMEZ:   Since you're there, you  
18                   mentioned that was one of the questions.   In fact,  
19                   this is 60 hertz that we're dealing with.

20                   MS. PALMQUIST:   Yes.

21                   MR. GOMEZ:   Is that liable to have any  
22                   harm on it?   I think what I'm hearing you say is  
23                   that any -- there's a wide range of frequencies  
24                   that don't produce a problem basically.

1 MS. PALMQUIST: Yeah.

2 MR. GOMEZ: And I didn't know -- I had  
3 somebody approach me regarding harmonics and if  
4 they were going to be present. Obviously, it  
5 depends on whether we have clean signals or not and  
6 whether they would have impact. My guess, and what  
7 I told him was, that since it's higher frequency,  
8 it would probably attenuate faster.

9 MS. PALMQUIST: Yeah. And like the  
10 research I mentioned off the West Coast, that would  
11 have incorporated any of that, and there's no  
12 evidence that that impacted any of the species in  
13 the vicinity.

14 MR. GOMEZ: Not to be insulting, but it  
15 sounds like you have a reasonable amount of  
16 hands-on at sea tests and things?

17 MS. PALMQUIST: No. This is a  
18 risk-assessment calculation so it's --

19 MR. GOMEZ: No, but I mean, your own  
20 background, you get to sea often or not?

21 MS. PALMQUIST: Not as much I'd like.

22 MR. GOMEZ: I get seasick, so. Underwater  
23 is not bad.

24 MS. PALMQUIST: Most of my work has been

1 done -- I think the last time I was out it was on a  
2 river.

3 MR. GOMEZ: I had a lot of contracts out  
4 at the University of Washington --

5 MS. PALMQUIST: It is great out there.

6 MR. GOMEZ: -- so I'm jealous. At any  
7 rate, I'll switch over to the harmonics -- not the  
8 harmonics, but at the last briefing we had, I was  
9 told there was no shielding. Now you're indicating  
10 there is shielding, and it is steel. Is that  
11 steel, in itself, contained? Is there something  
12 over the seal to prevent, you know, cathodic  
13 reactions with the saltwater and stuff? So I guess  
14 maybe we can wander down that a little bit.

15 MR. COTTS: Yeah, absolutely. So the  
16 construction of the cable has three phase  
17 conductors that are actually carrying the power.  
18 Outside that, there is insulation, and there are a  
19 couple of additional layers. And, at the very  
20 outside of the cable, there is this ring of steel  
21 wires that's there for the armoring. And then  
22 immediately outside of that is a cross-linked  
23 polyethylene or XLPE layer that encapsulates the  
24 entire cable.

1 MR. GOMEZ: Okay. That clears up some  
2 issues for me. I don't think I've got anything  
3 else. Shielding, blah, blah, blah. Okay. I'm  
4 done. Thank you.

5 CHAIRMAN COIA: Mr. Izzi -- oh, no, whose  
6 hand is up?

7 MR. IZZI: Katherine's.

8 CHAIRMAN COIA: All right. Ms. Hall. All  
9 I saw is a hand. Ron was in the way.

10 MS. ROBINSON-HALL: On the 60 hertz AC  
11 cables in the case that you referenced in  
12 California, what were the cables for in California?

13 MS. PALMQUIST: I believe they were going  
14 out to some offshore platforms. So they were  
15 powering some -- I want to say they were offshore  
16 oil platforms. But the frequency is the same,  
17 still 60 hertz, and the magnetic fields are the  
18 same as what would be produced at the  
19 Revolution Wind cables based on the modeling.

20 MS. ROBINSON-HALL: In that comparison  
21 regarding that, is there a difference in the depth  
22 of water between there and here?

23 MS. PALMQUIST: Yeah. I don't know off  
24 the top of my head. The primary difference is that



1 those cables were not buried. So what they had to  
2 look at were -- was sediment unenergized cables and  
3 energized cables. Because the most significant  
4 effect they found is the physical structure  
5 affected the cable. But when they compared the two  
6 cables, the energized and the distant unenergized,  
7 there was no effect of those EMF. I do know that  
8 there were similar species. There was the crab,  
9 they had some bottom fish, they had a flounder.  
10 And so it was -- it was a relatively similar -- you  
11 know, there was some species that were similar.

12 MS. ROBINSON-HALL: When you say, "the  
13 crab" --

14 MS. PALMQUIST: Rock crab.

15 MS. ROBINSON-HALL: Rock crab. But the  
16 depth of water would be just incomparable, right,  
17 just relative to the continental shelf?

18 MS. PALMQUIST: It could be deeper because  
19 the continental shelf is --

20 MS. ROBINSON-HALL: By a wide margin,  
21 right?

22 MS. PALMQUIST: Potentially.

23 MS. ROBINSON-HALL: It's pretty  
24 significant.

1 MS. PALMQUIST: Yeah, it depends on how  
2 close to shore they were.

3 MS. ROBINSON-HALL: Does that impact at  
4 all with respect to -- it may not be a major impact  
5 relative to the impact of that on nonmobile  
6 shellfish, but it might on more mobile finfish and  
7 shellfish; would you agree with that?

8 MS. PALMQUIST: You mean like a depth plus  
9 the EMF?

10 MS. ROBINSON-HALL: Yeah.

11 MS. PALMQUIST: No, no. Because they  
12 still weren't detecting the EMF at either which  
13 way.

14 MS. ROBINSON-HALL: But as far as a  
15 comparison study for what we might see here --

16 MS. PALMQUIST: No.

17 MS. ROBINSON-HALL: -- in a totally  
18 different environment with respect to the depth.

19 MS. PALMQUIST: No, no. The --

20 MS. ROBINSON-HALL: They're completely  
21 equal in your mind?

22 MS. PALMQUIST: The detection of EMF is  
23 not depth dependent.

24 MS. ROBINSON-HALL: Okay. So depth of

1 water has zero impacts on the impact of EMF on any  
2 species?

3 MS. PALMQUIST: That's correct.

4 MS. ROBINSON-HALL: Okay. Thank you.

5 CHAIRMAN COIA: Any other questions?

6 (NO RESPONSE)

7 CHAIRMAN COIA: Okay. Thank you.

8 MS. DIETER: All right. Thank you both.

9 Mr. Chair, we have one more witness to call briefly  
10 before Ms. Main turns back to the wrap-up witness.  
11 If I may call Dr. Drew Carey briefly.

12 MR. DeSISTO: Sir, please raise your right  
13 hand. Do you swear or affirm to tell the truth,  
14 the whole truth, and nothing but the truth so help  
15 you God?

16 THE WITNESS: I do.

17 MR. DeSISTO: Please state your name and  
18 spell it for the record.

19 THE WITNESS: Drew Carey, D-R-E-W,  
20 C-A-R-E-Y.

21 DIRECT EXAMINATION

22 BY MS. DIETER:

23 Q. Dr. Carey, you testified at the prior hearing; is  
24 that right?

1 A. That is correct.

2 Q. So I'm not going to go into your background again,  
3 but just to remind the Council, you're the CEO of  
4 Inspire Environmental?

5 A. That is correct.

6 Q. Have you been involved in any survey work at the  
7 Block Island Wind Farm relating to concrete  
8 mattresses?

9 A. Yes, I have.

10 Q. And what was your survey work involvement?

11 A. So we were asked to conduct a survey of the  
12 location and condition of the mattresses on the  
13 export cable of the Block Island Wind Farm one year  
14 after installation.

15 Q. What was the purpose of that survey?

16 A. We were asked to determine whether there was any  
17 fishing gear entangled on the mattresses and if any  
18 of the mattresses had moved since installation.

19 Q. What did the survey find?

20 A. So we used high-resolution seafloor mapping tools,  
21 multibeam and side-scan sonar. We had the  
22 precision locations of the mattresses when they  
23 were put into place. So as they were lowered to  
24 the seafloor, the location was marked. So we went

1 back, and we mapped the entire cable. We compared  
2 the location before or right after installation to  
3 the images, and none of the mattresses had moved,  
4 and there was no fishing gear entangled on any of  
5 the 49 mattresses.

6 Q. Did you find any evidence relating to trawling on  
7 the mattresses in connection with your survey?

8 A. Yes, we did. The same seafloor imagery allows us  
9 to see trawl marks that are left on the seafloor  
10 during trawling.

11 Q. And did you see evidence of that on the mattresses?

12 A. Well, we saw trawl lines that extended to and over  
13 the mattresses in several different locations. So  
14 these would have necessarily had to have occurred  
15 after the mattresses were put into place since the  
16 seafloor had returned. In some cases, we saw  
17 sediment that had moved over the mattresses and  
18 then trawl marks moving right across them.

19 Q. I'm going to pull up an image here, and in the top  
20 right it says, "BIWF Cable Protection Mat Survey  
21 Field Summary Report," and then in the bottom left  
22 it says, "Figure 6." Do you recognize this image?

23 A. Yes, I do.

24 Q. What is it?

1 A. Well, we did a field summary report from this  
2 survey that I described. This is one of the  
3 figures from that summary report. Let's see if I  
4 can get the pointer here.

5 In the upper right there is an inset map  
6 of Block Island, the cable, the wind farm is down  
7 here on this section. So this particular image is  
8 coming from one portion of the cable. A little  
9 hard to see from over there, but each of these  
10 black rectangles represents a location of a  
11 mattress when it was installed. The red rectangle  
12 is this inset here.

13 Each one of those mattresses had a number  
14 so they recorded them as they went down. And what  
15 you can see on both this side-scan sonar image and  
16 this one here are the trawl marks cutting across  
17 the cable. There's one up here as well. And you  
18 can see that they line up and they come right  
19 across a couple of different mattresses.

20 Q. So how do you interpret that image, and what  
21 conclusions do you draw from it?

22 A. Well, in my career of looking at seafloor marks and  
23 images, to me this is consistent with a trawl -- a  
24 number of trawls coming across this cable without

1 any interruption. There's no break in the lines.  
2 There's a little bit of seafloor sediment on top of  
3 this one. But there's no gear entangled, and  
4 there's no indication that, in this particular  
5 case, they were interrupted.

6 Q. Dr. Carey, I'm going to switch to some other  
7 work that you've done in connection with  
8 Block Island Wind Farm. Did you hear my discussion  
9 just a minute ago with Dr. Palmquist?

10 A. I did.

11 Q. And I asked her what her reaction would be to  
12 reports that, as soon as the power was turned on at  
13 Block Island Wind Farm, fish fled the area. Have  
14 you been involved in any survey work at  
15 Block Island Wind Farm relating to fish populations  
16 in that vicinity?

17 A. Yes, I have. I designed and managed a seven-year  
18 survey at the site. That survey was using  
19 commercial fishing gear at the location.

20 Q. And what was the survey designed to investigate?

21 A. So the scientific design was put into place to  
22 assess the use of fish at the site of the wind farm  
23 site and the surrounding area and to -- the way we  
24 designed it was to distinguish the difference

1           between any potential wind farm effect and the  
2           general environmental change that occurs in any  
3           part of the ocean over time.

4       Q.   Did your sampling include the cable area?

5       A.   Yes, it did.   So the scientific design was to have  
6           an area associated with where the project was going  
7           to be built.   So we started doing this before it  
8           was built.   And then two adjacent areas we  
9           considered as controlled.   Same water depth, same  
10          type of bottom.   Inside the area around the wind  
11          farm, five of the various locations we could tow  
12          went directly over cables after they were  
13          installed, and in the control areas none of the  
14          trawl locations crossed a cable.

15      Q.   What did the trawl survey find?

16      A.   Well, we found no adverse effect on the abundance  
17          of fish throughout the entire survey.   The biomass,  
18          so that would be the weight of the fish, varied  
19          very consistently with regional surveys.   So the  
20          State of Rhode Island and a national program do a  
21          similar kind of study, same kind of equipment, a  
22          commercial trawl, and they report seasonal biomass,  
23          and the numbers varied very consistently with the  
24          regional changes.



1 Q. So, overall, was your conclusion that there were no  
2 significant negative effects to fish and  
3 invertebrate from the wind farm?

4 A. That's correct. It's been published in a  
5 peer-reviewed -- three peer-reviewed articles. And  
6 we had no evidence that fish disappeared from the  
7 Block Island Wind Farm as a result of construction  
8 or operation.

9 Q. Thank you.

10 A. Sure.

11 MS. DIETER: I don't have any more  
12 questions for Dr. Carey.

13 CHAIRMAN COIA: Any questions of Dr. Carey  
14 from the Council?

15 MS. ROBINSON-HALL: I just have a really  
16 quick question about if there is any impact  
17 relative to the scouring, I mean, around the  
18 placement of these concrete pads in terms of  
19 sediment scouring?

20 THE WITNESS: So the same study and  
21 another study that was conducted by a project  
22 sponsored by BOEM, we can see evidence of movement  
23 of sediment. This is quite common off of  
24 Block Island. There's sands and gravels in this

1 area. You get a storm, they move around. So there  
2 are areas near the turbines where you see the  
3 sediment moving around as a result of that. This  
4 particular area, which you can see where it's  
5 located, we didn't see any scour in that area.

6 MS. ROBINSON-HALL: Thank you.

7 THE WITNESS: Mm-hmm. Yes.

8 MR. IZZI: Doctor, have you conducted any  
9 studies in your research that found that there was  
10 any damage to the concrete mattresses from trawling  
11 activity?

12 THE WITNESS: I haven't seen that. I  
13 mean, these -- these measurements for seafloor  
14 mapping might be difficult to see that damage.  
15 There were diver surveys conducted at roughly the  
16 same time, about a year afterwards. I haven't seen  
17 any indication that the concrete itself is damaged  
18 by trawling.

19 MR. IZZI: Okay.

20 CHAIRMAN COIA: Anything else? All right,  
21 please proceed.

22 MS. DIETER: Thank you, Dr. Carey. I'll  
23 turn it back over to my partner, Robin Main.

24 MS. MAIN: I would now like to call

1 Mr. Jesper Christensen, please.

2 MR. DeSISTO: Sir, raise your right hand.  
3 Do you swear or affirm to tell the truth, the whole  
4 truth, and nothing but the truth so help you God?

5 THE WITNESS: I do.

6 MR. DeSISTO: Please state your name and  
7 spell it for the record.

8 THE WITNESS: Jesper Christensen,  
9 J-E-S-P-E-R, last name, C-H-R-I-S-T-E-N-S-E-N.

10 DIRECT EXAMINATION

11 BY MS. MAIN:

12 Q. Thank you. Jesper, where are you employed?

13 A. I'm employed at Ørsted.

14 Q. And what is your position at Ørsted?

15 A. Senior commercial project manager.

16 Q. And as senior commercial project manager, do you do  
17 any work on Revolution Wind?

18 A. I do.

19 Q. Briefly describe to the Council what work you do  
20 for Revolution Wind.

21 A. It's a broad role, but primary responsibilities are  
22 all aspects of commercial nature within the project  
23 development. It also includes, you know, action,  
24 discussion, negotiation with external parties,

1 including state agencies, the fisheries, ports, etc.

2 Q. And, Jesper, have you worked on the mitigation  
3 package for Revolution Wind that's here before the  
4 Council tonight?

5 A. Yes, I have.

6 Q. Okay. Would you please explain to the Council the  
7 work you have done on this mitigation package to  
8 address the issues here before the Council tonight  
9 on the export cables in state waters, and I think  
10 for ease of response, probably doing it  
11 chronologically would be helpful.

12 CHAIRMAN COIA: Can I interrupt. Can you  
13 read back the question, please.

14 (WHEREUPON, THE PENDING QUESTION WAS READ  
15 BACK)

16 CHAIRMAN COIA: I need to ask my counsel.  
17 I don't think there's a mitigation package before  
18 us this evening, is there?

19 MR. DeSISTO: We don't have a mitigation  
20 package yet.

21 MS. MAIN: And Mr. Christensen is going to  
22 describe that for you.

23 MR. DeSISTO: Okay.

24 MS. MAIN: I can certainly rephrase the

1 question, if that would be helpful.

2 MR. DeSISTO: I understand what you put on  
3 to this point.

4 MS. MAIN: Yes.

5 MR. DeSISTO: And I'm not speaking for the  
6 Council, it's a Council determination, but my  
7 understanding is that negotiations are still  
8 ongoing, so this may be premature.

9 MS. MAIN: Well, let me address that.  
10 Based on the work that Woods Hole has done, we have  
11 met with the Fishermen's Advisory Board and their  
12 representatives numerous times. As a result of  
13 that, Revolution Wind has made an offer on  
14 mitigation to the Fishermen's Advisory Board to  
15 consider. And since that initial offer was made,  
16 there has been considerable back and forth with  
17 Revolution Wind and the Fishermen's Advisory Board.

18 And what we intend to show through  
19 Mr. Christensen's testimony is the progress of  
20 those negotiations, the dollar amounts that have  
21 been put on, what those dollar amounts represent,  
22 and where we are today with that mitigation  
23 package. We have not come to -- and I'll conclude  
24 after I say this, and certainly representatives of

1 the advisory board are here -- we're not here  
2 before you tonight with an agreement with the  
3 Fishermen's Advisory Board to present. We have not  
4 been able to reach agreement.

5 MR. DeSISTO: Yet.

6 MS. MAIN: At this time, that's correct,  
7 Mr. DeSisto.

8 MR. DeSISTO: And negotiations haven't  
9 concluded.

10 MS. MAIN: Well, we would like to bring an  
11 end to negotiations. And I respect the fact that  
12 having adequate time to conduct negotiations is  
13 very important, and there's been considerable back  
14 and forth, but we do want to progress this project  
15 and bring it to a vote. And we can't do that until  
16 there's agreement on a mitigation number. So part  
17 of our presentation tonight is meant to lay out  
18 what we have done so far in mitigation.

19 MR. DeSISTO: Okay. I actually have a  
20 suggestion right now because I'm looking at the  
21 stenographer, and she's been going at it for over  
22 an hour and a half now. I'm wondering if she needs  
23 a break.

24 COURT REPORTER: I could use a break,

1 sure. Thank you.

2 (BREAK TAKEN)

3 CHAIRMAN COIA: We will reconvene. I'm  
4 going to refer to our Attorney DeSisto for a few  
5 comments.

6 MR. DeSISTO: Okay. Mitigation is  
7 definitely one of the issues that needs to be  
8 addressed on this, but negotiations are still  
9 ongoing on the matter. And it's appropriate, I  
10 think, at this time, to have the applicants make  
11 their argument on the granting of the special  
12 exception and the variance.

13 The issue of mitigation, I think it's  
14 something that if there is not to be an agreement  
15 on this, that staff would need to take a look and  
16 at least make a report out to the Council so an  
17 appropriate decision can be had. And, of course,  
18 we're hopeful that the negotiations, which I  
19 understand they're ongoing, will, in fact, be  
20 fruitful, and there will be an agreement on this.

21 Because we have a limited amount of time  
22 in this building, I think it's appropriate to have  
23 the applicants go forward on the main issues, and  
24 we'll save mitigation to the last. And if there is

1 no agreement, you can certainly make the  
2 presentation that you're going to, as well as the  
3 Fishermen's Advisory Board can make their pitch,  
4 too, and you can decide on that basis.

5 There's one final point. Staff did  
6 reference the Section 46-23-1 and the role of the  
7 General Assembly in approving matters of this  
8 nature. I understand that Ms. Main and Ms. Dieter  
9 would like to address that issue. I think it's  
10 appropriate to do that at this time.

11 MS. MAIN: Thank you very much,  
12 Attorney DeSisto. And let me say to the Council  
13 that we agree that mitigation discussions are  
14 ongoing. We think that we've made very good  
15 progress on the actual claims handling and trust  
16 side of it. And so tonight was not meant to jump  
17 over that in any way or to present like it was a  
18 fait accompli.

19 So I want to make that clear for the  
20 record. It was to talk about the progression and  
21 the fact that we have made, with some really  
22 helpful input from FAB members, good progress on  
23 the trust handling of claims. So I want to make  
24 that clear for the Council.



1 CHAIRMAN COIA: Thank you.

2 MS. MAIN: So we had, as we mentioned  
3 before, a request for a special exception and also  
4 a request married to that special exception that  
5 the Council also find that Revolution Wind has  
6 rebutted the presumption about the area the special  
7 exception involves.

8 I find this gets somewhat complicated, but  
9 let me try to boil it down. You heard during the  
10 November 1 hearing that the Revolution Wind export  
11 cables pass through approximately 10 percent of the  
12 recreational area, of particular concern, in  
13 Rhode Island Sound. And that recreational area, of  
14 particular concern, relates not to fishing but to  
15 things like sailboat racing, regattas, and so  
16 forth.

17 Under the OSAMP, development in an area of  
18 particular concern, which I'll now call an APC, is  
19 presumptively excluded, unless the applicant can  
20 rebut that presumption, overcome that presumption,  
21 jump over that presumption with evidence, which is  
22 what I am going to go through in a moment.

23 And CRMC has also suggested that another  
24 avenue for relief here is a special exception. I

1 think it could be looked at as a gray area as to  
2 whether you should get a special exception or rebut  
3 the presumption, and I don't want to have any legal  
4 issues arising from this.

5 So I ask that you find that we rebutted  
6 the presumption based on what I'm about to argue  
7 and that we also deserve the special exception so  
8 that there are no issues from a legal standpoint  
9 here. The good news is that the evidence that  
10 we've put in and that I'm going to briefly recap  
11 cover both, so it won't be a long argument.

12 So as to this recreational APC, I want to  
13 first address the criteria for a special exception,  
14 which you're probably familiar with under the  
15 Red Book. And under the Red Book, the Council may  
16 grant a special exception for an activity that  
17 would otherwise be prohibited if it can meet  
18 certain requirements. And those are compelling  
19 public purpose that benefits the public, including  
20 energy projects. Here we have a renewable energy  
21 project.

22 Another element is that it's either a  
23 water-dependent activity or a use that generates  
24 substantial economic gain to the state. You heard

1 from Kellen Ingalls' testimony about the  
2 substantial economic gain that Revolution Wind will  
3 make to the state with the investments and job  
4 creation that he put into the record.

5 Another element of a special exception is  
6 that it's an activity that provides access to the  
7 shore. Well, here that's really not relevant in  
8 any way. This is an offshore wind farm, and the  
9 onshore work will not prohibit any access to the  
10 shore, and Kellen showed you that shoreline route  
11 during his testimony.

12 Importantly, another element of a special  
13 exception is all reasonable steps have been taken  
14 to minimize environmental impacts or use conflicts.  
15 Ross Pearsall was here on November 1st and gave  
16 testimony about the fact that recreation in this  
17 area of an APC -- and it's focused on, again,  
18 sailboat races, regattas, and so forth -- will not  
19 be affected because those types of activities  
20 either are not occurring during that time of year  
21 or frankly, not even in the calendar year that  
22 Revolution Wind expects to be out there. Whether  
23 it's the Volvo Race, Newport to Bermuda, and so  
24 forth.

1           Also, as you heard through several of our  
2 witnesses, the construction schedule is such that  
3 by the time you get to that southern tip of  
4 Beavertail and out into the Sound, it's much later  
5 in the year, it's October, November. And  
6 Megan Eakin testified to that. So, again, there's  
7 not going to be a use conflict in this area.

8           And finally, with a special exception,  
9 there has to be no reasonable means of serving the  
10 purpose described. And here there isn't. The  
11 recreational APC goes across the east and west  
12 passage of Narragansett Bay. So there's no other  
13 route that could be taken to get the cables up,  
14 other than going through the east and west passage  
15 to get where the landing site is.

16           And importantly, the Council should not  
17 lose sight of, with all due respect, the fact that  
18 this cable route is indeed the cable route that's  
19 in the Council's proposed cable charter  
20 regulations. We're following that cable route. So  
21 that covers the special exception criteria, and as  
22 I just described, we can meet every one of them.

23           In addition, moving over to rebutting the  
24 presumption. Again, a somewhat awkward phrase.

1 And I'll try to set forth as clearly as I can what  
2 the regulations require.

3 Revolution Wind needs to demonstrate that  
4 there are no practical alternatives that are less  
5 damaging or that the proposed project will not  
6 result in a significant alteration to the values  
7 and resources of the APC.

8 As I explained above, you know, when I was  
9 talking about the special exception, we are not  
10 going to have any impact on the values of the  
11 resources of that recreational APC. And I'll also  
12 note that the OSAMP gives some latitude as well  
13 when it says that underwater cables may be  
14 installed within APCs. So the OSAMP recognizes  
15 that.

16 So based on the evidence that I put before  
17 you on November 1 with our witnesses and what I  
18 just described with the special exception, those  
19 same issues carry over to rebutting the  
20 presumption. Ross Pearsall's testimony about the  
21 lack of these major recreational boating activities  
22 not going on when we're constructing, the fact that  
23 construction in that area where the APC is located  
24 will be much later in the year. And so for those

1 reasons, those same reasons, we have satisfied the  
2 requirement to rebut the presumption about having  
3 development in that particular APC, and we ask that  
4 the Council grant both the special exception and  
5 find that Revolution Wind rebutted the presumption  
6 against being in that APC.

7 Thank you. And I have nothing further on  
8 that issue, unless there are any questions.

9 CHAIRMAN COIA: Any questions from the  
10 Council members?

11 MR. GOMEZ: Just --

12 CHAIRMAN COIA: Go ahead.

13 MR. GOMEZ: I'm not a lawyer so -- the  
14 difference between the special exception and you  
15 were talking about a rebutting presumption, what is  
16 a rebutting presumption? See, I'm showing my  
17 ignorance.

18 MS. MAIN: No, no, you're not. I find  
19 it's an awkward phrasing. So the way I would try  
20 to describe it is development in the areas of  
21 particular concern in the OSAMP are presumed not to  
22 support development for whatever reason. And  
23 there's several APCs, right?

24 There's APCs that deal in state waters

1 with glacial moraine. That's a totally different  
2 value proposition than what we're talking about  
3 with recreation, and there are others that deal  
4 with shipwrecks, for example. Again, different  
5 value proposition from the others. So they all  
6 have their importance to some degree.

7 But the OSAMP was, I think, carefully  
8 constructed to not say with APCs, oh, this is a  
9 no-go zone, stay out of it. But what CRMC wisely  
10 did was say, in certain circumstances, if you can  
11 bring the right information before you -- before  
12 us, we can let you be in it. So you're kind of  
13 rebutting it and saying, no, you can't throw me  
14 out, and I have good reason why you can't throw me  
15 out, and I'm going to prove it to you.

16 And so that's basically what I've done  
17 here, and what Christine, my partner, and I have  
18 done with our witnesses, is to say here's the  
19 evidence that shows we're not going to impact the  
20 values of that resource.

21 MR. GOMEZ: Okay.

22 MR. DeSISTO: In other words --

23 MR. GOMEZ: Test tomorrow.

24 MR. DeSISTO: -- with an APC, there's a

1 presumption there's an element there that is not  
2 good for the environment. They need to present  
3 evidence to say that's not the case.

4 MR. GOMEZ: Okay.

5 MS. MAIN: And as the Council wishes, we  
6 have two more arguments, one of which I will make,  
7 and then Christine will make the other.

8 CHAIRMAN COIA: Okay.

9 MS. MAIN: Would you like me to start the  
10 next one now?

11 CHAIRMAN COIA: Sure.

12 MS. MAIN: So the staff report speaks to  
13 one stipulation, and it's probably the only  
14 stipulation with which we have an issue. And that  
15 is going to the General Assembly for a submerged  
16 land lease. And we've looked at the CRMC enabling  
17 act on this issue. And while we certainly always  
18 respect the CRMC's position on its enabling act and  
19 the good work that the General Assembly does, we  
20 find that the enabling act, which my colleague is  
21 going to bring up on the monitor -- and can we  
22 expand that at all?

23 MS. SAVAGE: I don't think so, but hold  
24 on, let me try.



1 MS. MAIN: If not, I can read it. Yeah,  
2 here we go. So this top line that's highlighted in  
3 yellow -- and I'll read it because it's pretty  
4 short -- it says, the legislature, General Assembly,  
5 hereby declares that in light of the unique size,  
6 scope, and overall potential impact upon the  
7 environment of large-scale filling projects  
8 involving 25 acres or more, any lease of tidal  
9 lands or license to use those lands is subject to  
10 the approval, disapproval, or conditional approval  
11 by the direct enactment of the General Assembly.

12 So the General Assembly has taken to  
13 looking at projects of 25 acres or more and  
14 declaring that's important to the state. We're a  
15 small state. That's important. So we're going to  
16 need to enact or have special enactments for leases  
17 and so forth. But that provision is only triggered  
18 by filling.

19 At the bottom of this particular  
20 provision -- if you could scan down to that, Kat,  
21 and blow it up a little bit -- there's a definition  
22 of fill land, and it means portions of tidal land,  
23 meaning land subject to high and low tides and so  
24 forth, which have been rendered by the acts of man

1 to be no longer subject to tidal action. So that's  
2 akin to if you've got a piece of property on  
3 Allen's Avenue and you want to fill 25 acres or  
4 more so that you have more usable land, if you're  
5 going to bring that 25 acres or more out into the  
6 Providence River, General Assembly wants a say-so  
7 on that. That's an important element, right?

8 It seems as though the stipulation is  
9 focusing on that. What the stipulation I don't  
10 believe acknowledges, though -- if we could go back  
11 to the second, yellow highlighted -- is like with  
12 any law there's always exceptions, right? So in  
13 the second, yellow highlighted section -- and this  
14 is in our prehearing filing that we made on  
15 October 21st to CRMC. It says, with the exception  
16 of any and all projects to fill land of 25 acres or  
17 more. All right.

18 So that example I gave you in the  
19 Providence River, with the exceptions of those  
20 types, the General Assembly recognizes and declares  
21 that CRMC is delegated the sole and exclusive  
22 authority for the leasing of submerged and filled  
23 lands and giving licenses for the use of that land.  
24 So, again, we believe that that exception covers

1 our project.

2 Again, we respect CRMC's view of its  
3 own enabling work and the good work of the  
4 General Assembly, but I certainly did want to note  
5 this for the record on the CRMC stipulation, which,  
6 like I said, I believe that the project, otherwise,  
7 is in agreement with.

8 And, again, this argument is also within  
9 our prehearing filing, and I'm going to conclude on  
10 that note, unless there's any questions.

11 CHAIRMAN COIA: Any questions from Council  
12 members?

13 (NO RESPONSE)

14 CHAIRMAN COIA: Okay. There's none.

15 MS. MAIN: Okay. Thank you. And  
16 Christine will present the argument on the  
17 variance.

18 MS. DIETER: Thank you, Mr. Chair. So in  
19 addition to the special exception and finding on  
20 the rebuttable presumption, Revolution Wind is also  
21 requesting a variance from a limited section of the  
22 Ocean SAMP, and that section is 11.9.9. And what  
23 Section 11.9.9 requires is that the project collect  
24 two years of baseline biological assessments of

1 commercially and recreationally targeted fishing  
2 species before construction begins.

3 You heard the testimony of Kyle Cassidy  
4 last time that the project anticipates that the  
5 survey in state waters, the ventless trap survey  
6 that he described, will begin in about January of  
7 2023, and you heard the testimony of Megan Eakin as  
8 well that the project expects cable installation to  
9 occur in October and November of 2024. And so what  
10 that means is that the project expects to collect  
11 about one-and-a-half to one-and-three-quarters  
12 years' worth of baseline data prior to  
13 construction, rather than the two years required by  
14 the Ocean SAMP.

15 But this request for a variance is really  
16 narrow. It's narrow because of the difference  
17 between what we expect to collect and the two years  
18 required, and it's also narrow because of the  
19 geographic area that we're talking about. This is  
20 a requirement of the Ocean SAMP which covers from  
21 the mouth of the Narragansett Bay out to the three  
22 nautical boundary of state and federal waters.  
23 This requirement is not in the Red Book and doesn't  
24 apply to the Narragansett Bay portion of the

1 project.

2 And you also heard Kyle testify that there  
3 is preexisting RIDEM survey data that provides a  
4 reasonable supplement to the Revolution data that  
5 will be collected, Revolution Wind data that will  
6 be collected. And that RIDEM survey has been going  
7 on for 16 years, and it's collected a wealth of  
8 data during that time.

9 It's important to note that the Ocean SAMP  
10 allows applicants to include existing survey  
11 program data in their baseline assessment. So it  
12 is appropriate under the OSAMP for Revolution Wind  
13 to incorporate that preexisting RIDEM data within  
14 the baseline assessment that the project intends to  
15 do.

16 What I'd like to do very quickly is run  
17 through the six requirements of a variance and just  
18 explain briefly how we've met each one of those.  
19 The first is that the project -- the proposed  
20 alteration conforms with the applicable goals and  
21 policies of the Coastal Resources Management  
22 program. And the Ocean SAMP considers underwater  
23 cables offshore development, and it also identifies  
24 the development of offshore renewable energy as

1 an important policy objective. So we are  
2 furthering both of those goals here. You heard  
3 Kellen Ingalls' testimony that the Revolution Wind  
4 project including these export cables will further  
5 these policy goals.

6 The second requirement is that the  
7 proposed alteration will not result in significant  
8 adverse environmental impacts or use conflicts.  
9 And you have before you the extensive Category B  
10 application that Revolution Wind has submitted that  
11 describes in detail the reasons why the export  
12 cable will not result in significant adverse  
13 impacts. And this is consistent with the  
14 conclusions within the staff report that there will  
15 not be significant adverse impacts.

16 I'll also note, as Robin did a minute ago,  
17 that the cable is located within the proposed cable  
18 corridor that the Council put forth in the proposed  
19 rulemaking. And just to add a little bit of color  
20 on that, in the testimony that you heard the other  
21 night, Gareth Ellis testified that there will be a  
22 target burial depth of four to six feet for the  
23 export cable; Megan Eakin discussed the time of  
24 year restrictions that will minimize adverse

1 impacts to certain species; and you also heard from  
2 Ross Pearsall, and Robin just summarized that the  
3 project is going to avoid impacts to recreational  
4 boating. And so as a result of all of these  
5 factors, the project will not result in significant  
6 adverse environmental impacts or use conflicts.

7 The third factor for granting the variance  
8 is that, due to the conditions of the site in  
9 question, the applicable standards may not be met.  
10 This factor is a little bit difficult to apply  
11 because we're not talking here about a site in the  
12 traditional sense, but bear with me as I try to  
13 take you through this.

14 Again, I want to point you to the  
15 testimony that Kyle gave last time, that  
16 Revolution Wind has partnered with RIDEM for this  
17 ventless trap survey in state waters, and it took  
18 time to develop that survey. As a result of this  
19 partnership between Revolution Wind and RIDEM,  
20 RIDEM engaged in extensive outreach with local  
21 fishermen to design the scope of the survey and its  
22 layout, and this work was critical to ensuring that  
23 the survey is appropriately targeted and that  
24 stakeholders have faith in the process. And the

1 project is incredibly appreciative of the efforts  
2 that RIDEM has undertaken on its behalf with  
3 respect to this survey. So that's one reason that  
4 we have this brief delay in getting started.

5 The other is there's supply chain issues  
6 beyond RIDEM's control that has delayed in getting  
7 some of the equipment, specifically some of the  
8 pots needed to conduct the survey. So these are  
9 the specific reasons relevant to this project as to  
10 why we have this brief delay in this instance.

11 The fourth factor is that the modification  
12 requested is the minimum variance to the applicable  
13 standard necessary. And really we are talking  
14 about a minimal variance here. As I said at the  
15 outset, we expect to collect one-and-a-half to  
16 one-and-three-quarters years' worth of data as  
17 compared with the two required. So, essentially,  
18 six out of eight seasons required. So this is very  
19 minimal.

20 And I want to emphasize again the  
21 wealth of preexisting data that we have from the  
22 RIDEM survey that's been going on since 2006.  
23 This survey uses the same methodology as  
24 Revolution Wind's survey, and in developing the



1 Revolution Wind survey, RIDEM itself pointed to  
2 this preexisting survey as a reasonable supplement  
3 to the proposed Revolution Wind survey.

4 I want to also highlight something Kyle  
5 talked about last time, which is that RIDEM  
6 conducted a power analysis of the proposed  
7 Revolution Wind survey, and that's essentially how  
8 many samples do you need to take in order to get a  
9 good survey result. And it's the case that even  
10 with this brief delay in getting the survey  
11 started, the number of samples that are going to be  
12 collected from the Revolution Wind survey  
13 significantly outpaces that minimum requirement.  
14 So even with this brief delay, there's still going  
15 to be more than sufficient sampling data to capture  
16 any population changes.

17 The fifth factor is that the requested  
18 variance is not due to any prior action of the  
19 applicant. And I've already touched on this. The  
20 brief delays are due to the good work of getting  
21 the survey up and running and scoped and the supply  
22 chain delays that were beyond anyone's control.

23 And then, finally, the sixth factor is  
24 that due to the conditions of the site in question,

1 the standard will cause the applicant undue  
2 hardship. And in this particular case, requiring  
3 Revolution Wind to complete the two full years of  
4 preconstruction sampling would cause an undue  
5 hardship.

6 And here I want to remind you of the  
7 testimony from Kellen Ingalls from night one. The  
8 project is on very tight schedules to meet the  
9 milestones established by the power purchase  
10 agreements. And if you recall of Gareth Ellis from  
11 the other night, the cable lay can't start and  
12 stop. It has to be a continuous process. So we  
13 can't start in one location, collect the data, and  
14 then keep going. It has to -- once it gets  
15 started, it goes. And so there's a risk here with  
16 the time of year restrictions that any delay could  
17 cause significant impacts because it would cause  
18 the project to miss its time of year construction  
19 windows.

20 And this hardship is particularly evident  
21 where we have such good preexisting data from the  
22 RIDEM survey dating back to 2006. Again, this  
23 characterizes the entire area of Narragansett Bay,  
24 the Rhode Island Sound, and so we have a really

1 good sense from that preexisting data of fish  
2 species distribution throughout this area. And as  
3 I said at the outset, the OSAMP allows the project  
4 to rely on and refer to that preexisting data in  
5 developing its baseline assessment.

6 And so for all those reasons, we do meet  
7 those six criteria for a variance, and I would,  
8 therefore, ask that the Council grant the project a  
9 variance with respect to Section 11.9.9 of the  
10 OSAMP.

11 CHAIRMAN COIA: Thank you. Any questions  
12 from the Council?

13 (NO RESPONSE)

14 CHAIRMAN COIA: Okay. I didn't see any.

15 MS. DIETER: Thank you.

16 CHAIRMAN COIA: Thank you. Anything else,  
17 Attorney Main, on the issue of the variance and the  
18 special exception?

19 MS. MAIN: I believe we've covered them.  
20 Thank you.

21 CHAIRMAN COIA: Okay. So what we are  
22 inclined to do, at this point, is to conclude the  
23 hearing for this evening. At the next hearing get  
24 a report back on mitigation. Hopefully, it will be

1 a favorable one. If not, allow you to -- jump in  
2 if I'm misspeaking -- allow you to progress with  
3 your mitigation arguments and then allow public FAB  
4 or anyone to be involved or anyone else that wishes  
5 to speak relative to that issue or any other issues  
6 that come before us as part of our decision on this  
7 matter. I'm asking Attorney DeSisto, did I miss  
8 anything?

9 MR. DeSISTO: No, that's correct. That  
10 would be the public hearing also, public comment  
11 also on the Category B application.

12 CHAIRMAN COIA: Okay.

13 MR. DeSISTO: And hopefully, the matter  
14 concludes at that time.

15 CHAIRMAN COIA: All right. Anything else  
16 to come before us?

17 (NO RESPONSE)

18 CHAIRMAN COIA: So I would entertain a  
19 motion to adjourn. Did you raise your hand?

20 MS. MAIN: Excuse me, yes. I'm sorry.

21 CHAIRMAN COIA: I saw it peripherally.

22 MS. MAIN: Good job. What would the date  
23 for that be? Would that be the next meeting in  
24 December?

1 MR. SLOAN: December 13th.

2 MR. WILLIS: December 13th is the next  
3 hearing date. We do have applications.

4 CHAIRMAN COIA: Yeah, that works.  
5 December 13th. It looks like December 13 will be  
6 the next date, from what I'm told. With that, I'd  
7 entertain a motion to adjourn.

8 MR. GOMEZ: So moved.

9 CHAIRMAN COIA: Is there a second?

10 MS. McGOVERN: Second.

11 CHAIRMAN COIA: Motion's made and  
12 seconded. Any discussion?

13 (NO RESPONSE)

14 CHAIRMAN COIA: Hearing none, all in favor  
15 say, "aye."

16 (WHEREUPON, A VOICE VOTE WAS TAKEN)

17 CHAIRMAN COIA: Anyone opposed?

18 (NO RESPONSE)

19 CHAIRMAN COIA: Motion carries.

20 (MOTION PASSED)

21 CHAIRMAN COIA: Thank you to everyone.  
22 Have a safe Thanksgiving.

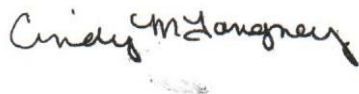
23 (MEETING ADJOURNED AT 8:28 P.M.)

24

C E R T I F I C A T E

I, Cindy M. Tangney, a Commissioner in and for the State of Rhode Island, hereby certify that the foregoing pages are a true and accurate record of my stenographic notes that were reduced to print through computer-aided transcription.

In witness whereof, I hereunto set my hand this 28th day of November, 2022.



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CINDY M. TANGNEY, RMR

My Commission (RI) Expires on 06/30/2025

	<b>action (3)</b> 66:23;81:1;88:18	7:10;8:20;19:3; 26:7;30:23;31:7; 35:22;36:4;48:8; 50:19;59:2;74:17; 75:6,24;78:4;81:24; 82:2,8;86:14;87:20; 89:22	16:18	14:10,17,18;16:6; 18:15,16,22;19:2,10, 13,18;20:12,14;21:1, 11,21;22:1,2,10; 23:13,18;24:5;25:2; 31:2;34:22;35:21; 37:8;39:2;44:10; 51:23;62:13,23;63:4, 6,10;65:1,4,5;72:6,12, 13,17;73:1;74:17; 75:7;76:23;83:19; 89:23;90:2
<b>\$</b>	<b>activities (10)</b> 15:18;16:12,18; 23:17;25:16,18,20; 26:21;74:19;76:21	<b>against (1)</b> 77:6	<b>angler (1)</b> 21:18	
<b>\$1.41 (1)</b> 20:5	<b>activity (9)</b> 23:19;24:2;26:4; 34:1,2;65:11;73:16, 23;74:6	<b>agencies (2)</b> 5:20;67:1	<b>annual (6)</b> 20:19;21:4,22;22:4, 7,9	
<b>\$100,000 (3)</b> 19:21;28:1,3	<b>acts (1)</b> 80:24	<b>agenda (4)</b> 3:13,16;4:14;8:13	<b>anticipates (1)</b> 83:4	
<b>\$3 (1)</b> 20:20	<b>actual (3)</b> 21:1;30:15;71:15	<b>ago (2)</b> 62:9;85:16	<b>anymore (1)</b> 51:6	
<b>\$340,000 (1)</b> 22:8	<b>Actually (7)</b> 14:15;16:8;21:24; 35:5;40:17;54:17; 69:19	<b>agree (3)</b> 36:13;57:7;71:13	<b>apart (1)</b> 20:24	
<b>\$47,000 (1)</b> 18:23	<b>Adaptation (1)</b> 5:16	<b>agreed (2)</b> 7:19;21:8	<b>APC (10)</b> 72:18;73:12;74:17; 75:11;76:7,11,23; 77:3,6;78:24	
<b>\$5,000 (1)</b> 17:22	<b>add (3)</b> 25:18,23;85:19	<b>agreement (8)</b> 7:19;69:2,4,16; 70:14,20;71:1;82:7	<b>APCs (4)</b> 76:14;77:23,24; 78:8	
<b>\$6.28 (1)</b> 20:15	<b>addition (4)</b> 24:8;43:5;75:23; 82:19	<b>agreements (1)</b> 89:10	<b>appear (1)</b> 36:2	
<b>\$854,000 (1)</b> 25:17	<b>additional (1)</b> 54:19	<b>ahead (1)</b> 77:12	<b>applicable (3)</b> 84:20;86:9;87:12	<b>areas (9)</b> 12:15;16:15;37:7, 11;51:17;63:8,13; 65:2;77:20
<b>\$966,000 (1)</b> 25:21	<b>address (5)</b> 15:15;67:8;68:9; 71:9;73:13	<b>akin (1)</b> 81:2	<b>applicant (3)</b> 72:19;88:19;89:1	<b>argue (3)</b> 9:5;24:12;73:6
<b>A</b>	<b>addressed (1)</b> 70:8	<b>Allen's (1)</b> 81:3	<b>applicant's (1)</b> 9:7	<b>argument (4)</b> 70:11;73:11;82:8, 16
<b>able (6)</b> 17:16;25:7;31:10; 44:3;46:11;69:4	<b>adequate (1)</b> 69:12	<b>allow (5)</b> 9:1;19:23;91:1,2,3	<b>applicant's (1)</b> 9:7	<b>arguments (2)</b> 79:6;91:3
<b>above (1)</b> 76:8	<b>adjacent (1)</b> 63:8	<b>allowed (2)</b> 21:10;30:16	<b>applicant's (1)</b> 9:7	<b>arising (1)</b> 73:4
<b>absolutely (1)</b> 54:15	<b>adjourn (2)</b> 91:19;92:7	<b>allows (3)</b> 60:8;84:10;90:3	<b>applicant's (1)</b> 9:7	<b>armoring (5)</b> 43:5,6,7,23;54:21
<b>abundance (1)</b> 63:16	<b>ADJOURNED (1)</b> 92:23	<b>almost (2)</b> 13:23;14:16	<b>applicant's (1)</b> 9:7	<b>around (16)</b> 12:15;15:18;17:14, 20;20:14;21:13,23; 22:11;25:3;27:2;43:5; 47:10;63:10;64:17; 65:1,3
<b>AC (10)</b> 46:19;47:5,6,12; 49:8,12,14;51:23; 52:2;55:10	<b>administering (1)</b> 5:18	<b>alone (1)</b> 24:13	<b>applicant's (1)</b> 9:7	<b>articles (4)</b> 48:16,17;49:6;64:5
<b>accept (3)</b> 3:20,22;4:1	<b>ado (1)</b> 9:8	<b>along (5)</b> 8:10;27:13;31:10; 48:13;49:16	<b>applicant's (1)</b> 9:7	<b>ashore (1)</b> 16:15
<b>access (7)</b> 23:13,15,24;24:13, 16;74:6,9	<b>adopt (1)</b> 5:15	<b>alteration (3)</b> 76:6;84:20;85:7	<b>applicant's (1)</b> 9:7	<b>aspect (4)</b> 41:9;42:22;43:12; 51:18
<b>accessible (2)</b> 16:1,7	<b>adverse (7)</b> 51:18;63:16;85:8, 12,15,24;86:6	<b>alternating (2)</b> 47:15;49:8	<b>applicant's (1)</b> 9:7	<b>aspects (2)</b> 9:10;66:22
<b>accompli (1)</b> 71:18	<b>Advisory (8)</b> 7:23;48:15;68:11, 14,17;69:1,3;71:3	<b>alternatives (1)</b> 76:4	<b>applicant's (1)</b> 9:7	<b>Assembly (9)</b> 71:7;79:15,19;80:4, 11,12;81:6,20;82:4
<b>accomplish (1)</b> 8:24	<b>affect (1)</b> 44:5	<b>always (4)</b> 20:24;31:3;79:17; 81:12	<b>applicant's (1)</b> 9:7	<b>assess (1)</b> 62:22
<b>account (2)</b> 33:14;42:21	<b>affected (5)</b> 21:1;22:23;28:9; 56:5;74:19	<b>amended (1)</b> 7:5	<b>applicant's (1)</b> 9:7	<b>assessment (5)</b> 25:6;49:7;84:11,14; 90:5
<b>accounts (1)</b> 24:13	<b>affirm (5)</b> 10:11;38:4;45:3; 58:13;66:3	<b>amount (3)</b> 43:16;53:15;70:21	<b>applicant's (1)</b> 9:7	<b>assessments (3)</b> 45:24;46:1;82:24
<b>acknowledge (1)</b> 28:15	<b>afterwards (1)</b> 65:16	<b>amounts (2)</b> 68:20,21	<b>applicant's (1)</b> 9:7	<b>associated (8)</b> 21:23;22:16;23:2,3, 4;34:10,12;63:6
<b>acknowledges (1)</b> 81:10	<b>again (21)</b>	<b>analysis (10)</b> 13:9,21;15:1,22; 16:10;26:17;28:16; 32:19;33:7;88:6	<b>applicant's (1)</b> 9:7	<b>assume (12)</b> 12:23;19:7,9;20:9; 23:9,24,24;24:8,18; 25:1,10;33:8
<b>acres (5)</b> 80:8,13;81:3,5,16		<b>ancillary (1)</b>	<b>applicant's (1)</b> 9:7	<b>assuming (3)</b> 26:2;33:23;42:7
<b>across (6)</b> 24:5;60:18;61:16, 19,24;75:11			<b>applicant's (1)</b> 9:7	<b>assumption (3)</b> 21:3;26:8;34:3
<b>act (3)</b> 79:17,18,20			<b>applicant's (1)</b> 9:7	

<p><b>assumptions (4)</b> 25:15,24;28:21; 31:6</p> <p><b>attended (1)</b> 39:18</p> <p><b>attenuate (1)</b> 53:8</p> <p><b>Attorney (7)</b> 8:10,11,17;70:4; 71:12;90:17;91:7</p> <p><b>auspices (1)</b> 39:12</p> <p><b>authority (1)</b> 81:22</p> <p><b>authors (1)</b> 50:2</p> <p><b>availability (1)</b> 24:18</p> <p><b>available (3)</b> 15:24;16:7;46:18</p> <p><b>avenue (2)</b> 72:24;81:3</p> <p><b>average (5)</b> 17:21;18:21;20:6; 21:17;43:18</p> <p><b>avoid (1)</b> 86:3</p> <p><b>aware (1)</b> 36:6</p> <p><b>away (1)</b> 41:20</p> <p><b>awkward (2)</b> 75:24;77:19</p> <p><b>aye (4)</b> 4:8;5:2;6:11;92:15</p>	<p>19;21:3;22:9,12,22; 26:1;36:17;82:24; 83:12;84:11,14;90:5</p> <p><b>basically (3)</b> 29:14;52:24;78:16</p> <p><b>basis (2)</b> 19:11;71:4</p> <p><b>bass (1)</b> 35:17</p> <p><b>Bay (10)</b> 14:11;18:20;35:12; 44:6;46:14,16;75:12; 83:21,24;89:23</p> <p><b>bear (1)</b> 86:12</p> <p><b>Beavertail (1)</b> 75:4</p> <p><b>becoming (1)</b> 36:7</p> <p><b>beg (1)</b> 10:10</p> <p><b>begin (4)</b> 5:12,24;8:4;83:6</p> <p><b>begins (2)</b> 32:6;83:2</p> <p><b>behalf (1)</b> 87:2</p> <p><b>behavior (2)</b> 49:14,23</p> <p><b>behavioral (2)</b> 48:8;51:22</p> <p><b>behaviors (2)</b> 44:5;46:13</p> <p><b>below (2)</b> 28:1,3</p> <p><b>Ben (2)</b> 38:2;46:20</p> <p><b>benefit (1)</b> 36:13</p> <p><b>benefits (1)</b> 73:19</p> <p><b>Benjamin (1)</b> 38:10</p> <p><b>B-E-N-J-A-M-I-N (1)</b> 38:11</p> <p><b>Bermuda (1)</b> 74:23</p> <p><b>best (4)</b> 9:14;12:1;19:6; 37:7</p> <p><b>better (2)</b> 10:7;18:9</p> <p><b>beyond (2)</b> 87:6;88:22</p> <p><b>big (3)</b> 30:2;33:21;36:19</p> <p><b>bigger (1)</b> 22:2</p> <p><b>biological (1)</b> 82:24</p> <p><b>biomass (2)</b> 63:17,22</p> <p><b>birds (1)</b></p>	<p>36:9</p> <p><b>bit (8)</b> 3:3;10:5;32:9; 54:14;62:2;80:21; 85:19;86:10</p> <p><b>bite (1)</b> 36:5</p> <p><b>BIWF (1)</b> 60:20</p> <p><b>black (2)</b> 35:17;61:10</p> <p><b>blah (3)</b> 55:3,3,3</p> <p><b>block (14)</b> 9:19;51:1,2,5,13; 52:9;59:7,13;61:6; 62:8,13,15;64:7,24</p> <p><b>blow (1)</b> 80:21</p> <p><b>Board (8)</b> 7:23;48:15;68:11, 14,17;69:1,3;71:3</p> <p><b>boat (2)</b> 26:21;27:17</p> <p><b>boating (2)</b> 76:21;86:4</p> <p><b>boats (4)</b> 16:20,22;21:20; 23:13</p> <p><b>BOEM (1)</b> 64:22</p> <p><b>boil (1)</b> 72:9</p> <p><b>bones (1)</b> 47:1</p> <p><b>Book (3)</b> 73:15,15;83:23</p> <p><b>borne (1)</b> 47:8</p> <p><b>both (11)</b> 13:19;14:12;16:4; 19:1;25:19;44:13; 58:8;61:15;73:11; 77:4;85:2</p> <p><b>bottom (8)</b> 23:20;24:19;29:13; 30:6;56:9;60:21; 63:10;80:19</p> <p><b>boundary (2)</b> 17:12;83:22</p> <p><b>break (5)</b> 34:5;62:1;69:23,24; 70:2</p> <p><b>brief (6)</b> 9:6;87:4,10;88:10, 14,20</p> <p><b>briefing (2)</b> 30:11;54:8</p> <p><b>briefly (10)</b> 11:12,20;12:8; 30:23;38:19;58:9,11; 66:19;73:10;84:18</p> <p><b>bring (8)</b></p>	<p>6:5;39:14;41:5; 69:10,15;78:11; 79:21;81:5</p> <p><b>broad (1)</b> 66:21</p> <p><b>broken (1)</b> 34:16</p> <p><b>brought (2)</b> 6:6;16:15</p> <p><b>building (1)</b> 70:22</p> <p><b>built (2)</b> 63:7,8</p> <p><b>burial (3)</b> 41:18;42:24;85:22</p> <p><b>buried (6)</b> 41:1,22;42:10,23; 43:4;56:1</p> <p><b>businesses (1)</b> 16:22</p>	<p><b>calculations (1)</b> 22:7</p> <p><b>calendar (1)</b> 74:21</p> <p><b>California (3)</b> 49:12;55:12,12</p> <p><b>call (13)</b> 3:7;9:8,12;11:3; 13:4,8;23:15;38:2; 44:12;58:9,11;65:24; 72:18</p> <p><b>called (3)</b> 18:15;40:11;47:12</p> <p><b>came (2)</b> 11:7;16:10</p> <p><b>can (41)</b> 9:13,15,17,23;10:2; 12:18;13:8;15:23; 21:7,12,22;27:18; 34:3;42:2;44:13;46:9, 15,22;47:4;51:10; 54:14;61:4,15,18; 64:22;65:4;67:12,12, 24;70:17;71:1,3,4; 72:19;73:17;75:22; 76:1;78:10,12;79:21; 80:1</p> <p><b>capacity (1)</b> 5:19</p> <p><b>Cape (1)</b> 11:2</p> <p><b>captains (4)</b> 16:8;21:8,10;35:5</p> <p><b>capture (1)</b> 88:15</p> <p><b>career (1)</b> 61:22</p> <p><b>carefully (1)</b> 78:7</p> <p><b>Carey (7)</b> 58:11,19,23;62:6; 64:12,13;65:22</p> <p><b>C-A-R-E-Y (1)</b> 58:20</p> <p><b>carries (3)</b> 4:12;5:6;92:19</p> <p><b>carry (2)</b> 18:7;76:19</p> <p><b>carrying (1)</b> 54:17</p> <p><b>case (10)</b> 27:15,19;41:11,18; 42:3;55:11;62:5;79:3; 88:9;89:2</p> <p><b>cases (2)</b> 24:14;60:16</p> <p><b>Cassidy (1)</b> 83:3</p> <p><b>catch (1)</b> 51:6</p> <p><b>catches (1)</b> 50:21</p> <p><b>categories (2)</b></p>
<b>B</b>		<b>C</b>		
<p><b>back (18)</b> 8:7;9:21,23;28:20; 32:14;33:19;36:11; 37:3;58:10;60:1; 65:23;67:13,15; 68:16;69:13;81:10; 89:22;90:24</p> <p><b>background (6)</b> 11:13,21;38:20; 45:17;53:20;59:2</p> <p><b>bad (1)</b> 53:23</p> <p><b>bags (1)</b> 7:4</p> <p><b>Bank (2)</b> 5:14,20</p> <p><b>base (1)</b> 33:2</p> <p><b>based (8)</b> 26:1;46:18;49:21; 51:24;55:19;68:10; 73:6;76:16</p> <p><b>baseline (21)</b> 12:24;15:5,7,16; 17:2,14;19:22;20:5,9,</p>	<p>36:9</p> <p><b>bit (8)</b> 3:3;10:5;32:9; 54:14;62:2;80:21; 85:19;86:10</p> <p><b>bite (1)</b> 36:5</p> <p><b>BIWF (1)</b> 60:20</p> <p><b>black (2)</b> 35:17;61:10</p> <p><b>blah (3)</b> 55:3,3,3</p> <p><b>block (14)</b> 9:19;51:1,2,5,13; 52:9;59:7,13;61:6; 62:8,13,15;64:7,24</p> <p><b>blow (1)</b> 80:21</p> <p><b>Board (8)</b> 7:23;48:15;68:11, 14,17;69:1,3;71:3</p> <p><b>boat (2)</b> 26:21;27:17</p> <p><b>boating (2)</b> 76:21;86:4</p> <p><b>boats (4)</b> 16:20,22;21:20; 23:13</p> <p><b>BOEM (1)</b> 64:22</p> <p><b>boil (1)</b> 72:9</p> <p><b>bones (1)</b> 47:1</p> <p><b>Book (3)</b> 73:15,15;83:23</p> <p><b>borne (1)</b> 47:8</p> <p><b>both (11)</b> 13:19;14:12;16:4; 19:1;25:19;44:13; 58:8;61:15;73:11; 77:4;85:2</p> <p><b>bottom (8)</b> 23:20;24:19;29:13; 30:6;56:9;60:21; 63:10;80:19</p> <p><b>boundary (2)</b> 17:12;83:22</p> <p><b>break (5)</b> 34:5;62:1;69:23,24; 70:2</p> <p><b>brief (6)</b> 9:6;87:4,10;88:10, 14,20</p> <p><b>briefing (2)</b> 30:11;54:8</p> <p><b>briefly (10)</b> 11:12,20;12:8; 30:23;38:19;58:9,11; 66:19;73:10;84:18</p> <p><b>bring (8)</b></p>	<p>6:5;39:14;41:5; 69:10,15;78:11; 79:21;81:5</p> <p><b>broad (1)</b> 66:21</p> <p><b>broken (1)</b> 34:16</p> <p><b>brought (2)</b> 6:6;16:15</p> <p><b>building (1)</b> 70:22</p> <p><b>built (2)</b> 63:7,8</p> <p><b>burial (3)</b> 41:18;42:24;85:22</p> <p><b>buried (6)</b> 41:1,22;42:10,23; 43:4;56:1</p> <p><b>businesses (1)</b> 16:22</p>	<p><b>calculations (1)</b> 22:7</p> <p><b>calendar (1)</b> 74:21</p> <p><b>California (3)</b> 49:12;55:12,12</p> <p><b>call (13)</b> 3:7;9:8,12;11:3; 13:4,8;23:15;38:2; 44:12;58:9,11;65:24; 72:18</p> <p><b>called (3)</b> 18:15;40:11;47:12</p> <p><b>came (2)</b> 11:7;16:10</p> <p><b>can (41)</b> 9:13,15,17,23;10:2; 12:18;13:8;15:23; 21:7,12,22;27:18; 34:3;42:2;44:13;46:9, 15,22;47:4;51:10; 54:14;61:4,15,18; 64:22;65:4;67:12,12, 24;70:17;71:1,3,4; 72:19;73:17;75:22; 76:1;78:10,12;79:21; 80:1</p> <p><b>capacity (1)</b> 5:19</p> <p><b>Cape (1)</b> 11:2</p> <p><b>captains (4)</b> 16:8;21:8,10;35:5</p> <p><b>capture (1)</b> 88:15</p> <p><b>career (1)</b> 61:22</p> <p><b>carefully (1)</b> 78:7</p> <p><b>Carey (7)</b> 58:11,19,23;62:6; 64:12,13;65:22</p> <p><b>C-A-R-E-Y (1)</b> 58:20</p> <p><b>carries (3)</b> 4:12;5:6;92:19</p> <p><b>carry (2)</b> 18:7;76:19</p> <p><b>carrying (1)</b> 54:17</p> <p><b>case (10)</b> 27:15,19;41:11,18; 42:3;55:11;62:5;79:3; 88:9;89:2</p> <p><b>cases (2)</b> 24:14;60:16</p> <p><b>Cassidy (1)</b> 83:3</p> <p><b>catch (1)</b> 51:6</p> <p><b>catches (1)</b> 50:21</p> <p><b>categories (2)</b></p>	



23:22;49:1 <b>Category (3)</b> 7:12;85:9;91:11 <b>cathodic (1)</b> 54:12 <b>caught (3)</b> 16:14;17:14;19:8 <b>cause (5)</b> 46:12;89:1,4,17,17 <b>ceased (1)</b> 7:9 <b>Center (4)</b> 11:11;13:20;41:15; 42:12 <b>CEO (1)</b> 59:3 <b>certain (3)</b> 73:18;78:10;86:1 <b>Certainly (7)</b> 38:21;39:23;67:24; 68:24;71:1;79:17; 82:4 <b>chain (2)</b> 87:5;88:22 <b>Chair (8)</b> 5:9;6:23;8:2,19; 38:1;44:11;58:9; 82:18 <b>CHAIRMAN (65)</b> 3:2,24;4:4,7,10,12, 14,19,22;5:1,4,6,8; 6:1,7,10,13,15,17,21; 8:3,6,17;9:11;29:7; 31:16;33:10;35:7; 37:15,21;44:15,18,22; 52:15;55:5,8;58:5,7; 64:13;65:20;67:12, 16;70:3;72:1;77:9,12; 79:8,11;82:11,14; 90:11,14,16,21;91:12, 15,18,21;92:4,9,11, 14,17,19,21 <b>change (6)</b> 5:13;15:20;35:15; 36:21;49:20;63:2 <b>changed (2)</b> 35:14;50:6 <b>changes (4)</b> 36:20,22;63:24; 88:16 <b>changing (1)</b> 36:5 <b>characterizes (1)</b> 89:23 <b>chart (1)</b> 29:9 <b>charter (18)</b> 16:5,8;21:6,8,10,18, 23;22:8,9,18;25:24; 26:6,16;34:19,23; 35:1,4;75:19 <b>choice (1)</b> 27:19	<b>Christensen (3)</b> 66:1,8;67:21 <b>C-H-R-I-S-T-E-N-S-E-N (1)</b> 66:9 <b>Christensen's (1)</b> 68:19 <b>Christine (5)</b> 8:11;37:23;78:17; 79:7;82:16 <b>chronologically (1)</b> 67:11 <b>CIOCHETTO (2)</b> 10:4,7 <b>circumstances (2)</b> 30:15;78:10 <b>cited (4)</b> 40:22;43:13;48:15, 24 <b>claims (2)</b> 71:15,23 <b>clarification (2)</b> 31:19;32:1 <b>clean (1)</b> 53:5 <b>clear (2)</b> 71:19,24 <b>clearly (1)</b> 76:1 <b>clears (1)</b> 55:1 <b>Climate (3)</b> 5:16;35:14;36:21 <b>close (3)</b> 9:7;36:3;57:2 <b>closer (3)</b> 34:15;44:1;50:24 <b>closing (1)</b> 9:7 <b>coast (3)</b> 27:2;49:12;53:10 <b>Coastal (2)</b> 3:8;84:21 <b>Cod (1)</b> 11:2 <b>cofounded (1)</b> 39:17 <b>cofounder (1)</b> 39:16 <b>COIA (65)</b> 3:2,24;4:4,7,10,12, 14,19,22;5:1,4,6,8; 6:1,7,10,13,15,17,21; 8:3,6,17;9:11;29:7; 31:16;33:10;35:7; 37:15,21;44:15,18,22; 52:15;55:5,8;58:5,7; 64:13;65:20;67:12, 16;70:3;72:1;77:9,12; 79:8,11;82:11,14; 90:11,14,16,21;91:12, 15,18,21;92:4,9,11, 14,17,19,21 <b>coincide (1)</b>	27:8 <b>colleague (3)</b> 44:9;46:19;79:20 <b>colleagues (2)</b> 12:13;13:18 <b>collect (5)</b> 82:23;83:10,17; 87:15;89:13 <b>collected (4)</b> 84:5,6,7;88:12 <b>collects (1)</b> 18:14 <b>color (1)</b> 85:19 <b>comfortable (1)</b> 34:19 <b>coming (7)</b> 3:4;37:1,4,8;40:9; 61:8,24 <b>COMMENCED (1)</b> 3:1 <b>comment (1)</b> 91:10 <b>comments (2)</b> 48:16;70:5 <b>commercial (14)</b> 16:2;17:14;20:7; 21:3;22:6,13;26:15; 35:18;36:7;62:19; 63:22;66:15,16,22 <b>commercially (1)</b> 83:1 <b>common (1)</b> 64:23 <b>commonly (1)</b> 5:17 <b>communications (1)</b> 45:20 <b>community (1)</b> 28:12 <b>compare (1)</b> 52:5 <b>compared (9)</b> 21:21;28:9;40:16; 41:2;43:1;44:2;56:5; 60:1;87:17 <b>comparison (2)</b> 55:20;57:15 <b>compass (2)</b> 47:3,4 <b>compelling (1)</b> 73:18 <b>complete (2)</b> 18:10;89:3 <b>completely (1)</b> 57:20 <b>complicated (1)</b> 72:8 <b>component (1)</b> 33:1 <b>computer (1)</b> 38:16 <b>concern (4)</b>	72:12,14,18;77:21 <b>concerned (1)</b> 17:10 <b>conclude (4)</b> 50:2;68:23;82:9; 90:22 <b>concluded (1)</b> 69:9 <b>concludes (1)</b> 91:14 <b>conclusion (1)</b> 64:1 <b>conclusions (2)</b> 61:21;85:14 <b>concrete (6)</b> 40:20;41:23;59:7; 64:18;65:10,17 <b>concurrence (2)</b> 5:12,24 <b>condition (1)</b> 59:12 <b>conditional (1)</b> 80:10 <b>conditions (2)</b> 86:8;88:24 <b>conduct (3)</b> 59:11;69:12;87:8 <b>conducted (10)</b> 16:8;21:9;49:11; 51:9,13,16;64:21; 65:8,15;88:6 <b>conducting (1)</b> 45:23 <b>conductors (1)</b> 54:17 <b>conference (1)</b> 39:16 <b>conferences (1)</b> 39:18 <b>confidence (3)</b> 19:24;27:22;29:2 <b>conflict (1)</b> 75:7 <b>conflicts (3)</b> 74:14;85:8;86:6 <b>conforms (1)</b> 84:20 <b>connection (2)</b> 60:7;62:7 <b>Conservancy (1)</b> 7:2 <b>conservative (11)</b> 20:22;24:15;26:8; 31:4,12;35:23;36:4, 11;40:15,16;42:20 <b>conservatively (1)</b> 41:2 <b>consider (4)</b> 22:24;31:1;37:2; 68:15 <b>considerable (2)</b> 68:16;69:13 <b>considerably (1)</b>	30:8 <b>consideration (1)</b> 28:4 <b>considered (2)</b> 26:22;63:9 <b>considering (1)</b> 29:16 <b>considers (1)</b> 84:22 <b>consistency (2)</b> 7:14,17 <b>consistent (3)</b> 33:3;61:23;85:13 <b>consistently (2)</b> 63:19,23 <b>constrained (1)</b> 23:23 <b>constraint (3)</b> 23:15;24:14,17 <b>constructed (1)</b> 78:8 <b>constructing (1)</b> 76:22 <b>construction (22)</b> 7:6;17:4;23:2;24:1; 25:3,8,11,16;26:4; 31:20;32:5;33:18; 34:6,11;50:18;54:16; 64:7;75:2;76:23;83:2, 13;89:18 <b>constructive (1)</b> 28:18 <b>contained (1)</b> 54:11 <b>continental (2)</b> 56:17,19 <b>continuation (1)</b> 3:14 <b>continue (1)</b> 20:10 <b>continues (1)</b> 13:1 <b>continuous (1)</b> 89:12 <b>contracts (1)</b> 54:3 <b>contributes (1)</b> 27:5 <b>control (3)</b> 63:13;87:6;88:22 <b>controlled (1)</b> 63:9 <b>correctly (1)</b> 8:11 <b>corridor (5)</b> 20:2;21:14;22:15; 27:9;85:18 <b>corridors (8)</b> 20:7,17,21;21:5; 22:3;24:10,10,20 <b>Cotts (9)</b> 38:2,10,14;44:3,16; 46:6,10,12;54:15
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<p><b>C-O-T-T-S (1)</b> 38:11 <b>Council (39)</b> 3:9,11,18;5:12,23; 6:2;8:4,20;9:1;11:12; 13:15;29:7;37:16,20; 38:19;44:13;45:18; 51:10;59:3;64:14; 66:19;67:4,6,8;68:6; 6:70:16;71:12,24; 72:5;73:15;75:16; 77:4,10;79:5;82:11; 85:18;90:8,12 <b>Council's (1)</b> 75:19 <b>counsel (1)</b> 67:16 <b>countries (1)</b> 39:15 <b>couple (3)</b> 7:24;54:19;61:19 <b>course (3)</b> 11:5;25:12;70:17 <b>COURT (1)</b> 69:24 <b>cover (1)</b> 73:11 <b>covered (4)</b> 40:19;41:23;42:10; 90:19 <b>covering (2)</b> 41:13;42:8 <b>covers (3)</b> 75:21;81:24;83:20 <b>Cox's (1)</b> 35:12 <b>crab (8)</b> 24:22;49:18,19,23; 56:8,13,14,15 <b>creation (1)</b> 74:4 <b>crew (1)</b> 16:22 <b>criteria (3)</b> 73:13;75:21;90:7 <b>critical (1)</b> 86:22 <b>CRMC (7)</b> 7:1;72:23;78:9; 79:16;81:15,21;82:5 <b>CRMC's (3)</b> 5:22;79:18;82:2 <b>cross (2)</b> 49:20;50:2 <b>crossed (1)</b> 63:14 <b>cross-linked (1)</b> 54:22 <b>crustacean (3)</b> 44:5;46:13;49:14 <b>crustaceans (5)</b> 46:16,21;47:9;48:1, 5</p>	<p><b>current (3)</b> 40:6;47:15;49:8 <b>currently (1)</b> 14:8 <b>cutting (1)</b> 61:16</p> <p style="text-align: center;"><b>D</b></p> <p><b>damage (3)</b> 45:24;65:10,14 <b>damaged (1)</b> 65:17 <b>damaging (1)</b> 76:5 <b>data (39)</b> 12:13;15:24;16:1,5, 7;17:16,16,20,23; 18:6,9,12,14,21,24; 19:7,13,16,23;21:7; 33:1,2,4,5;40:4; 83:12;84:3,4,5,8,11, 13;87:16,21;88:15; 89:13,21;90:1,4 <b>date (3)</b> 91:22;92:3,6 <b>dating (1)</b> 89:22 <b>day (1)</b> 27:17 <b>DC (6)</b> 46:23;47:2,7,17,23; 49:1 <b>deadline (1)</b> 7:17 <b>deal (2)</b> 77:24;78:3 <b>dealing (1)</b> 52:19 <b>December (7)</b> 7:16;8:2;91:24; 92:1,2,5,5 <b>decide (1)</b> 71:4 <b>decision (4)</b> 7:18,20;70:17;91:6 <b>declares (2)</b> 80:5;81:20 <b>declaring (1)</b> 80:14 <b>decommissioning (8)</b> 17:6;23:4;25:10,18; 33:19;34:8,12,13 <b>decrease (1)</b> 41:10 <b>decreased (1)</b> 41:16 <b>deeper (1)</b> 56:18 <b>define (2)</b> 20:3,12 <b>defined (1)</b> 15:7</p>	<p><b>definitely (1)</b> 70:7 <b>definition (1)</b> 80:21 <b>degree (4)</b> 11:14;19:24;38:21; 78:6 <b>degrees (1)</b> 45:19 <b>delay (5)</b> 87:4,10;88:10,14; 89:16 <b>delayed (1)</b> 87:6 <b>delays (2)</b> 88:20,22 <b>delegated (1)</b> 81:21 <b>DEM (2)</b> 16:3;18:14 <b>demonstrate (1)</b> 76:3 <b>demonstratives (1)</b> 15:10 <b>dena (1)</b> 50:11 <b>Department (2)</b> 5:14;18:13 <b>dependent (1)</b> 57:23 <b>depends (2)</b> 53:5;57:1 <b>deployed (2)</b> 23:21;25:7 <b>depth (11)</b> 41:1,23;42:24; 55:21;56:16;57:8,18, 23,24;63:9;85:22 <b>describe (14)</b> 11:21;12:1,8,10,19; 38:19;39:22;44:3; 45:17;46:11;51:10; 66:19;67:22;77:20 <b>described (11)</b> 19:19;24:21;41:6; 42:2,6;51:22;61:2; 75:10,22;76:18;83:6 <b>describes (1)</b> 85:11 <b>describing (1)</b> 15:4 <b>description (3)</b> 8:12;11:13;13:15 <b>deserve (1)</b> 73:7 <b>design (3)</b> 62:21;63:5;86:21 <b>designed (3)</b> 62:17,20,24 <b>DeSISTO (28)</b> 8:16;10:10,15; 30:19;38:3,8;45:2,7; 58:12,17;66:2,6;</p>	<p>67:19,23;68:2,5;69:5, 7,8,19;70:4,6;71:12; 78:22,24;91:7,9,13 <b>detail (3)</b> 23:5;34:17;85:11 <b>details (1)</b> 12:9 <b>detect (3)</b> 46:22;47:5;48:1 <b>detectable (1)</b> 46:20 <b>detecting (1)</b> 57:12 <b>detection (1)</b> 57:22 <b>determination (1)</b> 68:6 <b>determine (1)</b> 59:16 <b>develop (2)</b> 40:14;86:18 <b>developed (2)</b> 13:1;20:11 <b>developer (1)</b> 32:6 <b>developing (3)</b> 39:15;87:24;90:5 <b>development (11)</b> 12:17,23;15:20; 22:23;66:23;72:17; 77:3,20,22;84:23,24 <b>devices (1)</b> 39:4 <b>dewatered (1)</b> 7:6 <b>dewatering (1)</b> 7:5 <b>Di (4)</b> 13:18,18,21;15:13 <b>Dieter (15)</b> 8:11;37:23;38:1,13; 44:11,24;45:12; 52:13;58:8,22;64:11; 65:22;71:8;82:18; 90:15 <b>difference (8)</b> 13:4;33:8;50:21; 55:21,24;62:24; 77:14;83:16 <b>differences (1)</b> 49:3 <b>different (9)</b> 23:1;28:14;34:13; 37:4;57:18;60:13; 61:19;78:1,4 <b>difficult (3)</b> 36:16;65:14;86:10 <b>direct (4)</b> 28:16;58:21;66:10; 80:11 <b>directly (2)</b> 13:21;63:12 <b>disaggregate (1)</b></p>	<p>19:16 <b>disappeared (1)</b> 64:6 <b>disapproval (1)</b> 80:10 <b>discounted (2)</b> 25:19;34:14 <b>discounts (1)</b> 33:18 <b>discussed (1)</b> 85:23 <b>discusses (1)</b> 26:14 <b>discussing (1)</b> 48:3 <b>discussion (6)</b> 4:5,23;35:9;62:8; 66:24;92:12 <b>discussions (1)</b> 71:13 <b>displaced (1)</b> 23:18 <b>disseminated (1)</b> 3:18 <b>distance (1)</b> 41:11 <b>distant (1)</b> 56:6 <b>distinguish (1)</b> 62:24 <b>distributed (1)</b> 19:18 <b>distribution (3)</b> 48:9;49:19;90:2 <b>disturbed (2)</b> 23:21;30:6 <b>diver (1)</b> 65:15 <b>Doctor (1)</b> 65:8 <b>doctoral (1)</b> 45:21 <b>doctorate (1)</b> 38:23 <b>dollar (3)</b> 34:15;68:20,21 <b>dollars (5)</b> 20:6;25:19;26:11; 33:15,19 <b>done (13)</b> 7:5;12:11;14:18; 30:12;43:13;54:1; 55:4;62:7;67:7;68:10; 69:18;78:16,18 <b>down (9)</b> 9:16,19;34:16; 41:17;54:14;61:6,14; 72:9;80:20 <b>downstairs (1)</b> 3:5 <b>Dr (32)</b> 9:13;10:21,24;12:2; 13:14,18,19,21;14:5;</p>
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15:13;26:13;28:11; 29:6;37:18;38:2,14; 44:3,9,12,16,24; 45:13;46:6,10,12; 58:11,23;62:6,9; 64:12,13;65:22 <b>drastically (1)</b> 35:14 <b>draw (1)</b> 61:21 <b>dredged (1)</b> 7:1 <b>dredging (1)</b> 7:8 <b>Drew (2)</b> 58:11,19 <b>D-R-E-W (1)</b> 58:19 <b>due (5)</b> 75:17;86:8;88:18, 20,24 <b>duration (2)</b> 25:9;31:6 <b>during (16)</b> 17:5,5;23:9;24:1; 25:5,11;27:11;31:21; 33:22;34:4,6;60:10; 72:9;74:11,20;84:8	24:9 <b>effects (26)</b> 13:11;17:4,5,5; 20:18;22:16;23:1,1,2, 3,11,22;25:5,11,13; 26:10;46:15;48:4,8, 10;50:3,8,16,23; 51:22;64:2 <b>efforts (1)</b> 87:1 <b>eight (2)</b> 46:1;87:18 <b>either (10)</b> 9:15,21;26:21; 42:15;52:9,14,15; 57:12;73:22;74:20 <b>electric (1)</b> 39:5 <b>electrical (5)</b> 38:15,21,23;39:23; 44:7 <b>electromagnetic (1)</b> 39:3 <b>electromagnetics (2)</b> 39:3,15 <b>element (5)</b> 73:22;74:5,12;79:1; 81:7 <b>Ellis (2)</b> 85:21;89:10 <b>else (7)</b> 27:20;35:7;55:3; 65:20;90:16;91:4,15 <b>elsewhere (1)</b> 27:2 <b>embryonic (2)</b> 48:11,12 <b>EMF (11)</b> 46:2,19;47:12; 50:22,23;51:17;56:7; 57:9,12,22;58:1 <b>emphasize (2)</b> 30:23;87:20 <b>employed (2)</b> 66:12,13 <b>enabling (4)</b> 79:16,18,20;82:3 <b>enact (1)</b> 80:16 <b>enactment (1)</b> 80:11 <b>enactments (1)</b> 80:16 <b>encapsulates (1)</b> 54:23 <b>end (5)</b> 8:2;22:8;32:13,22; 69:11 <b>energized (4)</b> 49:21;50:6;56:3,6 <b>energy (3)</b> 73:20,20;84:24 <b>engage (1)</b>	7:22 <b>engaged (2)</b> 14:8;86:20 <b>engineer (2)</b> 38:18;44:8 <b>engineering (6)</b> 11:15;38:15,21,23; 39:23;40:8 <b>ensuring (1)</b> 86:22 <b>entangled (3)</b> 59:17;60:4;62:3 <b>entertain (2)</b> 91:18;92:7 <b>entire (10)</b> 17:17,23;18:22; 22:1;24:1;25:1;54:24; 60:1;63:17;89:23 <b>entirely (1)</b> 51:23 <b>entitled (1)</b> 50:23 <b>entomology (1)</b> 45:19 <b>environment (3)</b> 57:18;79:2;80:7 <b>Environmental (7)</b> 5:15;18:13;59:4; 63:2;74:14;85:8;86:6 <b>equal (1)</b> 57:21 <b>equipment (2)</b> 63:21;87:7 <b>err (3)</b> 24:15;31:4,7 <b>essentially (2)</b> 87:17;88:7 <b>established (1)</b> 89:9 <b>estimate (12)</b> 12:16;20:5,22; 21:24;22:10,24; 27:21,24;28:3;32:24; 35:3,4 <b>estimated (3)</b> 15:5;16:11;26:9 <b>estimates (1)</b> 28:22 <b>estimating (2)</b> 17:3;18:9 <b>estimation (1)</b> 17:1 <b>etc (1)</b> 67:1 <b>evaluations (2)</b> 39:4;40:18 <b>even (8)</b> 35:15;36:8;41:11, 19;48:13;74:21;88:9, 14 <b>evening (6)</b> 3:2,12;8:20;13:19; 67:18;90:23	<b>everyone (5)</b> 3:2,5;10:2;17:9; 92:21 <b>evidence (10)</b> 53:12;60:6,11;64:6, 22;72:21;73:9;76:16; 78:19;79:3 <b>evident (1)</b> 89:20 <b>evolve (1)</b> 48:1 <b>exactly (1)</b> 27:16 <b>EXAMINATION (5)</b> 10:22;38:12;45:11; 58:21;66:10 <b>examine (1)</b> 12:13 <b>example (3)</b> 31:1;78:4;81:18 <b>exceedingly (1)</b> 32:17 <b>excellent (1)</b> 44:7 <b>exception (23)</b> 9:5;35:24;70:12; 72:3,4,7,24;73:2,7,13, 16;74:5,13;75:8,21; 76:9,18;77:4,14; 81:15,24;82:19;90:18 <b>exceptions (2)</b> 81:12,19 <b>excessive (1)</b> 31:7 <b>excluded (1)</b> 72:19 <b>exclusive (1)</b> 81:21 <b>Excuse (2)</b> 17:24;91:20 <b>existing (1)</b> 84:10 <b>expand (1)</b> 79:22 <b>expect (6)</b> 22:22;25:5;36:12; 52:6;83:17;87:15 <b>expects (3)</b> 74:22;83:8,10 <b>expendables (1)</b> 16:20 <b>expenditures (1)</b> 16:21 <b>experience (2)</b> 35:9;45:23 <b>experts (1)</b> 28:23 <b>explain (2)</b> 67:6;84:18 <b>explained (1)</b> 76:8 <b>Exponent (6)</b> 38:15,17;39:1,8;	45:14,15 <b>export (29)</b> 14:12,19;15:1,19; 17:11,17;20:2,4,14, 17,20,23;21:4;22:11, 14;23:7;24:10;27:9; 39:24;48:16,21; 49:10;52:10;59:13; 67:9;72:10;85:4,11, 23 <b>exposed (6)</b> 12:17,18,19,21; 26:18;47:9 <b>exposure (18)</b> 13:4,5;15:5,7;17:4; 20:13;24:16;26:9; 27:22;31:8;32:20; 33:13,14,23;34:6,8, 10,11 <b>extended (1)</b> 60:12 <b>extends (3)</b> 18:18,19;32:7 <b>extensive (2)</b> 85:9;86:20 <b>extent (1)</b> 34:24 <b>external (1)</b> 66:24 <b>extremely (1)</b> 27:24 <b>eye (1)</b> 29:9
<b>E</b>				<b>F</b>
<b>Eakin (3)</b> 75:6;83:7;85:23 <b>earlier (1)</b> 26:7 <b>earth (1)</b> 47:24 <b>ease (2)</b> 50:2;67:10 <b>east (2)</b> 75:11,14 <b>eco (1)</b> 45:14 <b>ecological (1)</b> 45:23 <b>economic (6)</b> 13:11;16:16;22:17, 20;73:24;74:2 <b>economics (1)</b> 11:16 <b>economist (2)</b> 13:22,24 <b>economy (1)</b> 27:5 <b>ecotoxicology (1)</b> 45:22 <b>educational (2)</b> 11:13;38:20 <b>effect (9)</b> 22:6;23:16;24:13; 25:23;46:13;56:4,7; 63:1,16 <b>effectively (1)</b>			<b>FAB (4)</b> 28:20;50:11;71:22; 91:3 <b>fact (10)</b> 18:17;26:3;43:7; 52:18;69:11;70:19; 71:21;74:16;75:17; 76:22 <b>factor (7)</b> 21:19;43:11;86:7, 10;87:11;88:17,23 <b>factors (4)</b> 32:19;42:20;43:22; 86:5 <b>fairly (1)</b> 37:9 <b>fait (1)</b> 71:18 <b>faith (1)</b> 86:24 <b>fall (4)</b> 28:7;31:24;32:3; 49:1 <b>familiar (9)</b> 6:4;12:2;14:10; 17:9;35:10;46:3; 48:17,50:10;73:14	

<p><b>far (5)</b> 28:1,3;34:14;57:14; 69:18</p> <p><b>farm (25)</b> 14:6;37:5;43:14; 50:11,18,20;51:1,2,5, 13,19;52:10,10;59:7, 13;61:6;62:8,13,15, 22;63:1,11;64:3,7; 74:8</p> <p><b>farms (4)</b> 36:1,1,1;37:3</p> <p><b>fast (1)</b> 36:6</p> <p><b>faster (1)</b> 53:8</p> <p><b>favor (4)</b> 4:7;5:1;6:11;92:14</p> <p><b>favorable (1)</b> 91:1</p> <p><b>February (1)</b> 7:20</p> <p><b>federal (11)</b> 7:13,17;14:13; 17:19;18:8,10;19:2,8, 10;33:7;83:22</p> <p><b>feedback (2)</b> 28:12;29:1</p> <p><b>feet (8)</b> 41:3,14,20,21; 42:11,15;43:1;85:22</p> <p><b>few (3)</b> 26:13;47:10;70:4</p> <p><b>field (26)</b> 40:9,15,20,24;41:4, 10,16,22,24;43:3,8, 10;46:22,23;47:2,3,9, 18,24;48:3,13;49:4; 52:2,3;60:21;61:1</p> <p><b>fields (7)</b> 39:6,24;47:6,7,21, 22;55:17</p> <p><b>fifth (1)</b> 88:17</p> <p><b>figure (2)</b> 32:14;60:22</p> <p><b>figures (1)</b> 61:3</p> <p><b>filing (2)</b> 81:14;82:9</p> <p><b>fill (4)</b> 7:7;80:22;81:3,16</p> <p><b>filled (1)</b> 81:22</p> <p><b>filling (2)</b> 80:7,18</p> <p><b>final (1)</b> 71:5</p> <p><b>finally (2)</b> 75:8;88:23</p> <p><b>find (13)</b> 40:12;49:9;50:14, 15;59:19;60:6;63:15;</p>	<p>72:5,8;73:5;77:5,18; 79:20</p> <p><b>finding (1)</b> 82:19</p> <p><b>findings (1)</b> 40:13</p> <p><b>fine (1)</b> 44:15</p> <p><b>finer (1)</b> 34:16</p> <p><b>finfish (2)</b> 23:17;57:6</p> <p><b>finished (1)</b> 25:8</p> <p><b>first (15)</b> 3:15;4:1;9:8;10:18; 11:7;17:13;23:23; 24:12;40:14;42:2,22; 49:1,18;73:13;84:19</p> <p><b>fish (31)</b> 13:10;16:14,15,17, 24;17:14;21:11; 26:21;27:16;35:19; 44:5;46:13,15,20; 47:8;48:1,4;49:15; 50:8;51:6,22;52:1; 56:9;62:13,15,22; 63:17,18;64:2,6;90:1</p> <p><b>fisheries (10)</b> 12:14;13:1;15:17; 18:14;25:21;28:23; 36:18,21;37:1;67:1</p> <p><b>fishermen (5)</b> 28:17;30:10;35:11; 51:6;86:21</p> <p><b>Fishermen's (7)</b> 7:23;48:15;68:11, 14,17;69:3;71:3</p> <p><b>fishing (45)</b> 12:14,22;16:2,6,20; 20:7;21:3,6,13,16,18, 23;22:8,10,13,18; 23:13,20;24:6,9,20; 25:7,24;26:6,15,16, 17,19,24;27:3,20,23; 28:8,12;34:3,19,23; 35:1,13,23;59:17; 60:4;62:19;72:14; 83:1</p> <p><b>five (2)</b> 35:15;63:11</p> <p><b>fled (1)</b> 62:13</p> <p><b>fleeing (1)</b> 51:23</p> <p><b>floor (1)</b> 8:18</p> <p><b>flounder (1)</b> 56:9</p> <p><b>flowing (1)</b> 40:7</p> <p><b>focus (2)</b> 18:7;33:12</p>	<p><b>focused (1)</b> 74:17</p> <p><b>focusing (1)</b> 81:9</p> <p><b>follow (1)</b> 31:10</p> <p><b>following (1)</b> 75:20</p> <p><b>foot (1)</b> 42:8</p> <p><b>forecast (1)</b> 36:17</p> <p><b>foregone (1)</b> 12:22</p> <p><b>foresight (1)</b> 37:6</p> <p><b>for-hire (2)</b> 16:5;26:16</p> <p><b>Fork (1)</b> 14:7</p> <p><b>forth (10)</b> 28:20;68:16;69:14; 72:16;74:18,24;76:1; 80:17,24;85:18</p> <p><b>Fortunately (1)</b> 44:9</p> <p><b>forward (3)</b> 6:5,6;70:23</p> <p><b>found (7)</b> 7:3;47:16;49:23; 50:8;56:4;63:16;65:9</p> <p><b>four (5)</b> 24:23;35:15;41:3; 43:1;85:22</p> <p><b>fourth (6)</b> 31:22;32:8,12,19, 23;87:11</p> <p><b>fraction (5)</b> 22:22;27:7,10,22; 35:2</p> <p><b>frankly (1)</b> 74:21</p> <p><b>fraught (1)</b> 27:23</p> <p><b>frequencies (1)</b> 52:23</p> <p><b>frequency (4)</b> 47:16,17;53:7; 55:16</p> <p><b>fruitful (1)</b> 70:20</p> <p><b>full (1)</b> 89:3</p> <p><b>full-time (1)</b> 11:8</p> <p><b>Fund (3)</b> 5:16,17,19</p> <p><b>fundamental (1)</b> 15:15</p> <p><b>further (8)</b> 9:8;18:18;25:12; 29:5;41:19;52:13; 77:7;85:4</p>	<p><b>furthering (1)</b> 85:2</p> <p><b>future (5)</b> 12:16;15:20;20:10; 25:12;34:14</p>	<p>44:17,19;52:16,17,21; 53:2,14,19,22;54:3,6; 55:1;77:11,13;78:21, 23;79:4;92:8</p> <p><b>Good (14)</b> 3:2;8:19;71:14,22; 73:9;78:14;79:2,19; 82:3;88:9,20;89:21; 90:1;91:22</p> <p><b>graduate (1)</b> 11:16</p> <p><b>graduated (1)</b> 39:1</p> <p><b>grant (3)</b> 73:16;77:4;90:8</p> <p><b>granting (2)</b> 70:11;86:7</p> <p><b>gravels (1)</b> 64:24</p> <p><b>gray (1)</b> 73:1</p> <p><b>Great (5)</b> 10:20;11:20;13:14; 29:4;54:5</p> <p><b>Griffin (1)</b> 28:24</p> <p><b>group (1)</b> 13:16</p> <p><b>growing (1)</b> 37:12</p> <p><b>guess (4)</b> 30:16;36:4;53:6; 54:13</p> <p><b>guide (2)</b> 9:13;48:2</p>
<b>G</b>				
<p><b>GAGNON (1)</b> 4:3</p> <p><b>gain (3)</b> 29:2;73:24;74:2</p> <p><b>gap (2)</b> 33:21,22</p> <p><b>Gareth (2)</b> 85:21;89:10</p> <p><b>gave (3)</b> 74:15;81:18;86:15</p> <p><b>gear (4)</b> 59:17;60:4;62:3,19</p> <p><b>general (12)</b> 40:4;49:6;63:2; 71:7;79:15,19;80:4, 11,12;81:6,20;82:4</p> <p><b>generally (1)</b> 35:2</p> <p><b>generated (3)</b> 12:14;13:2;52:3</p> <p><b>generates (2)</b> 13:11;73:23</p> <p><b>generating (2)</b> 43:15;52:11</p> <p><b>geographic (1)</b> 83:19</p> <p><b>geomagnetic (5)</b> 46:22;47:2,6,18,22</p> <p><b>geotextile (1)</b> 7:4</p> <p><b>gets (3)</b> 27:13;72:8;89:14</p> <p><b>Gilcoose (1)</b> 28:19</p> <p><b>given (4)</b> 24:2;27:17;30:15; 34:22</p> <p><b>gives (2)</b> 7:22;76:12</p> <p><b>giving (1)</b> 81:23</p> <p><b>glacial (1)</b> 78:1</p> <p><b>goals (3)</b> 84:20;85:2,5</p> <p><b>God (5)</b> 10:13;38:6;45:5; 58:15;66:4</p> <p><b>goes (2)</b> 75:11;89:15</p> <p><b>GOMEZ (34)</b> 3:22;4:18;6:3; 17:24;18:3;29:8,9,23; 30:1,21;31:9,15;35:8; 36:19,24;37:14;</p>				
<b>H</b>				
<p><b>half (4)</b> 23:9;26:5;41:24; 69:22</p> <p><b>Hall (2)</b> 31:17;55:8</p> <p><b>hand (8)</b> 10:11;38:4;45:3; 55:6,9;58:13;66:2; 91:19</p> <p><b>handling (2)</b> 71:15,23</p> <p><b>hands-on (1)</b> 53:16</p> <p><b>happen (2)</b> 20:10;43:17</p> <p><b>hard (1)</b> 61:9</p> <p><b>hardship (3)</b> 89:2,5,20</p> <p><b>harm (1)</b> 52:22</p> <p><b>harmonics (3)</b> 53:3;54:7,8</p> <p><b>Hauke (1)</b> 10:18</p>				

<b>H-A-U-K-E (1)</b> 10:18	<b>hopeful (1)</b> 70:18	<b>include (5)</b> 18:6;20:16;43:22; 63:4;84:10	<b>installed (3)</b> 61:11;63:13;76:14	3:8;5:13,14;13:12; 14:19;15:2;16:3,12, 16,23;18:13;20:6,18; 22:13,18;27:1;28:6, 10;29:20;34:23;35:1; 37:11;51:1,2,5,13; 52:9;59:7,13;61:6; 62:8,13,15;63:20; 64:7,24;72:13;89:24
<b>head (1)</b> 55:24	<b>Hopefully (2)</b> 90:24;91:13	<b>included (1)</b> 43:9	<b>instance (1)</b> 87:10	52:9;59:7,13;61:6; 62:8,13,15;63:20; 64:7,24;72:13;89:24
<b>hear (3)</b> 12:18;51:4;62:8	<b>hour (1)</b> 69:22	<b>includes (5)</b> 16:19,21;18:16,17; 66:23	<b>instead (1)</b> 27:18	<b>issue (7)</b> 70:13;71:9;77:8; 79:14,17,90:17;91:5
<b>heard (11)</b> 8:9;29:12;72:9; 73:24;75:1;83:3,7; 84:2;85:2,20;86:1	<b>hundred (1)</b> 47:10	<b>including (5)</b> 22:4;26:9;67:1; 73:19;85:4	<b>Institution (3)</b> 11:1,11;15:14	<b>issues (11)</b> 44:20;46:2;55:2; 67:8;70:7,23;73:4,8; 76:19;87:5;91:5
<b>Hearing (11)</b> 4:7;5:1;8:6;52:22; 58:23;72:10;90:23, 23;91:10;92:3,14	<b>hyphen (1)</b> 10:19	<b>incomparable (1)</b> 56:16	<b>insulation (1)</b> 54:18	<b>item (1)</b> 7:11
<b>held (1)</b> 11:22	<b>I</b>	<b>incorporate (1)</b> 84:13	<b>insulting (1)</b> 53:14	<b>items (1)</b> 6:23
<b>Heliophysical (1)</b> 39:11	<b>ice (1)</b> 16:20	<b>incorporated (1)</b> 53:11	<b>intend (1)</b> 68:18	<b>Izzi (11)</b> 33:11,12,21;34:1,5, 18;35:6;55:5,7;65:8, 19
<b>help (8)</b> 10:13;15:11;38:5; 39:14;45:4;48:2; 58:14;66:4	<b>idea (1)</b> 29:17	<b>incorporated (1)</b> 53:11	<b>intended (1)</b> 42:20	<b>J</b>
<b>helped (2)</b> 28:15;29:2	<b>identified (1)</b> 21:13	<b>incredibly (1)</b> 87:1	<b>intends (1)</b> 84:14	<b>January (3)</b> 32:8,9;83:6
<b>helpful (4)</b> 28:22;67:11;68:1; 71:22	<b>identifies (1)</b> 84:23	<b>indeed (1)</b> 75:18	<b>intentional (1)</b> 31:14	<b>jealous (1)</b> 54:6
<b>helping (1)</b> 28:21	<b>ignorance (1)</b> 77:17	<b>indicated (1)</b> 8:8	<b>intentionally (1)</b> 40:14	<b>Jesper (4)</b> 66:1,8,12;67:2
<b>hereby (1)</b> 80:5	<b>image (7)</b> 21:12;22:1;60:19, 22;61:7,15,20	<b>indicating (1)</b> 54:9	<b>interact (4)</b> 47:2,6,20;49:4	<b>J-E-S-P-E-R (1)</b> 66:9
<b>here's (1)</b> 78:18	<b>imagery (1)</b> 60:8	<b>indication (2)</b> 62:4;65:17	<b>interactions (1)</b> 28:19	<b>Jin (4)</b> 13:18,18,21;15:13
<b>hertz (9)</b> 46:23,24;47:15,18; 49:12;52:2,19;55:10, 17	<b>images (2)</b> 60:3;61:23	<b>indirect (7)</b> 13:10;16:11;20:17; 22:5,16;25:23;26:10	<b>inter-array (1)</b> 40:1	<b>job (4)</b> 11:22,24;74:3; 91:22
<b>high (4)</b> 22:8;32:17;51:17; 80:23	<b>immediate (1)</b> 23:14	<b>indirectly (1)</b> 28:20	<b>international (4)</b> 39:9,10,11,16	<b>joined (2)</b> 14:1;39:1
<b>higher (3)</b> 47:11;52:8;53:7	<b>immediately (1)</b> 54:22	<b>induced (7)</b> 13:10;16:11;20:18; 22:5,16;25:23;26:10	<b>interpret (1)</b> 61:20	<b>joining (2)</b> 11:20;39:8
<b>highest (1)</b> 32:15	<b>impact (23)</b> 13:6,8,8;16:16; 17:1;21:22;22:4,7,10, 17,20;28:1;48:12; 49:23;53:6;57:3,4,5; 58:1;64:16;76:10; 78:19;80:6	<b>industries (1)</b> 12:22	<b>interrupt (1)</b> 67:12	<b>joint (1)</b> 5:13
<b>highlight (1)</b> 88:4	<b>impacted (2)</b> 27:11;53:12	<b>industry (1)</b> 35:13	<b>interrupted (1)</b> 62:5	<b>jointly (1)</b> 5:15
<b>highlighted (3)</b> 80:2;81:11,13	<b>impacts (16)</b> 16:11;20:19;21:4; 25:23;26:15;41:8; 51:18;58:1;74:14; 85:8,13,15;86:1,3,6; 89:17	<b>information (11)</b> 16:6,9;19:17;21:10, 15,17;29:15;33:4,5; 34:24;78:11	<b>interruption (1)</b> 62:1	<b>jump (3)</b> 71:16;72:21;91:1
<b>high-resolution (1)</b> 59:20	<b>implied (1)</b> 25:15	<b>Infrastructure (2)</b> 5:14,20	<b>interviews (1)</b> 28:18	<b>junior (1)</b> 13:24
<b>historical (1)</b> 15:17	<b>importance (1)</b> 78:6	<b>Ingalls (1)</b> 89:7	<b>into (18)</b> 8:12,14;12:8;25:12; 28:4;32:9,18,19; 33:14;40:7;49:1;59:2, 23;60:15;62:21;74:4; 75:4;81:5	<b>K</b>
<b>hold (1)</b> 79:23	<b>important (9)</b> 17:1;26:24;50:16; 69:13;80:14,15;81:7; 84:9;85:1	<b>Ingalls' (2)</b> 74:1;85:3	<b>invertibrate (3)</b> 49:16;50:9;64:3	<b>Kat (1)</b> 80:20
<b>Hole (15)</b> 11:1,4,6,9,20,22,23; 12:13;13:16,23; 14:17;15:14;21:9; 26:16;68:10	<b>improve (2)</b> 28:15,21	<b>initial (2)</b> 34:6;68:15	<b>investigate (1)</b> 62:20	<b>Katherine (3)</b> 44:12,24;45:9
<b>holiday (1)</b> 7:9	<b>inclined (1)</b> 90:22	<b>Initiative (1)</b> 39:12	<b>investments (1)</b> 74:3	<b>K-A-T-H-E-R-I-N-E (1)</b> 45:10
<b>home (1)</b> 50:24		<b>input (3)</b> 28:17;40:4;71:22	<b>involve (1)</b> 40:3	<b>Katherine's (1)</b> 55:7
		<b>inset (2)</b> 61:5,12	<b>involved (3)</b> 59:6;62:14;91:4	
		<b>Inside (1)</b> 63:10	<b>involvement (1)</b> 59:10	
		<b>Inspire (1)</b> 59:4	<b>involves (2)</b> 39:3;72:7	
		<b>installation (4)</b> 59:14,18;60:2;83:8	<b>involving (1)</b> 80:8	
			<b>Island (38)</b>	

<b>keep (2)</b> 36:10;89:14	54:1,8;66:9;70:24; 83:4;86:15;88:5	<b>light (1)</b> 80:5	13:3;25:16	<b>marked (1)</b> 59:24
<b>Kellen (4)</b> 74:1,10;85:3;89:7	<b>later (4)</b> 7:7;13:13;75:4; 76:24	<b>likely (4)</b> 19:3;28:9;49:24; 50:1	<b>lost (4)</b> 23:20;24:20;25:21; 26:2	<b>market (2)</b> 36:7,23
<b>kelp (3)</b> 36:1,8;37:3	<b>latitude (1)</b> 76:12	<b>limited (2)</b> 70:21;82:21	<b>lot (4)</b> 7:3;18:17;47:19; 54:3	<b>marks (4)</b> 60:9,18;61:16,22
<b>kilometer (7)</b> 17:22;18:1,2,23; 19:11,22;20:1	<b>law (1)</b> 81:12	<b>line (6)</b> 40:2,5,10;51:8; 61:18;80:2	<b>low (2)</b> 41:2;80:23	<b>married (1)</b> 72:4
<b>kilometers (3)</b> 24:4;29:19,24	<b>lawyer (1)</b> 77:13	<b>lines (4)</b> 39:6;47:5;60:12; 62:1	<b>lowered (1)</b> 59:23	<b>Massachusetts (1)</b> 27:1
<b>kilometer-wide (2)</b> 20:14;25:1	<b>lay (3)</b> 36:3;69:17;89:11	<b>linked (1)</b> 16:23	<b>M</b>	<b>master's (1)</b> 38:23
<b>kind (6)</b> 47:3;48:24;51:21; 63:21,21;78:12	<b>layer (1)</b> 54:23	<b>literature (1)</b> 51:24	<b>magnetic (14)</b> 39:5,24;40:8,20; 41:4,22,24;43:3,7,10; 47:1;49:4;52:2;55:17	<b>Mat (1)</b> 60:20
<b>kinds (2)</b> 23:10;36:22	<b>layers (1)</b> 54:19	<b>little (11)</b> 3:3;10:5;32:9;37:6; 50:24;54:14;61:8; 62:2;80:21;85:19; 86:10	<b>Main (39)</b> 8:10,17,19;9:12,20; 10:3,6,8,20,23;29:5, 22;37:17,22;40:13; 58:10;65:23,24; 66:11;67:21,24;68:4, 9;69:6,10;70:23;71:8, 11;72:2;77:18;79:5,9, 12;80:1;82:15;90:17, 19;91:20,22	<b>material (3)</b> 7:3,7;36:2
<b>K-I-T-E (1)</b> 10:19	<b>layout (1)</b> 86:22	<b>lobster (2)</b> 24:22;31:3	<b>mainly (4)</b> 23:8;26:5;28:7; 33:6	<b>matter (8)</b> 3:13,15,15;8:8;9:7; 70:9;91:7,13
<b>Kite-Powell (15)</b> 9:13,18;10:1,14,17, 18,21,24;12:2;13:14; 14:5;26:13;28:11; 29:6;37:18	<b>leads (1)</b> 22:7	<b>lobsters (1)</b> 35:16	<b>major (2)</b> 57:4;76:21	<b>matters (1)</b> 71:7
<b>Kyle (4)</b> 83:3;84:2;86:15; 88:4	<b>lease (2)</b> 79:16;80:8	<b>loading (6)</b> 40:21;42:3;43:15, 18,24;48:13	<b>managed (1)</b> 62:17	<b>mattress (8)</b> 40:20;41:13,21,24; 42:8,10;43:22;61:11
<b>L</b>	<b>leases (1)</b> 80:16	<b>local (1)</b> 86:20	<b>making (1)</b> 14:3	<b>mattresses (13)</b> 59:17,18,22;60:3,5, 7,11,13,15,17;61:13, 19;65:10
<b>lab (1)</b> 52:4	<b>leasing (1)</b> 81:22	<b>located (5)</b> 14:12,20;65:5; 76:23;85:17	<b>man (1)</b> 80:24	<b>mattressing (2)</b> 59:8,12
<b>lack (1)</b> 76:21	<b>least (1)</b> 70:16	<b>location (7)</b> 41:4;59:12,24;60:2; 61:10;62:19;89:13	<b>managed (1)</b> 62:17	<b>maximum (6)</b> 40:20,21;42:6; 43:14,16;44:1
<b>land (7)</b> 79:16;80:22,22,23; 81:4,16,23	<b>leave (2)</b> 23:18;44:13	<b>locations (5)</b> 21:13;59:22;60:13; 63:11,14	<b>managing (1)</b> 45:16	<b>may (20)</b> 9:22;10:4;11:3; 12:21;13:3;15:10; 23:19;26:18;27:18; 30:22;31:23;32:2; 38:1;44:11;57:4; 58:11;68:8;73:15; 76:13;86:9
<b>landed (8)</b> 12:14;13:9,11; 16:14,17,24;20:6; 25:17	<b>led (1)</b> 50:2	<b>long (6)</b> 11:3,6;13:23;14:16; 31:2;73:11	<b>many (6)</b> 21:16,20,21;28:16; 29:19;88:8	<b>maybe (7)</b> 9:13;27:16;30:5; 31:24;32:3;44:1; 54:14
<b>landing (2)</b> 19:17;75:15	<b>left (2)</b> 60:9,21	<b>longer (3)</b> 24:24;29:16;81:1	<b>map (5)</b> 17:8,18;18;21:12; 22:1;61:5	<b>McGOVERN (3)</b> 4:21;6:9;92:10
<b>landings (15)</b> 17:20;18:5,6,8,9, 22;19:20;20:20; 22:13,17;25:3,22; 32:16,17;36:18	<b>legal (2)</b> 73:3,8	<b>look (11)</b> 17:15;18:21;27:7, 10;34:12,24;36:2; 37:11;50:22;56:2; 70:15	<b>mapped (2)</b> 37:9;60:1	<b>mean (13)</b> 12:19,21;13:9; 16:13;26:19;30:1; 35:16;47:13;51:11; 53:19;57:8;64:17; 65:13
<b>lands (3)</b> 80:9,9;81:23	<b>legislature (1)</b> 80:4	<b>looking (14)</b> 5:23;17:4;36:12; 40:5;41:12;44:1;46:1; 48:10;49:13,15;50:5; 61:22;69:20;80:13	<b>mapping (2)</b> 59:20;65:14	<b>meant (2)</b> 69:17;71:16
<b>lanes (1)</b> 20:3	<b>length (1)</b> 24:3	<b>looks (2)</b> 37:9;92:5	<b>margin (1)</b> 56:20	<b>measured (1)</b> 40:10
<b>large (2)</b> 18:14;30:14	<b>lengthy (1)</b> 8:13	<b>lose (1)</b> 75:17	<b>Marine (5)</b> 11:10,14;13:20,21; 49:16	<b>measurements (1)</b> 65:13
<b>larger (1)</b> 7:14	<b>less (8)</b> 18:10;21:1;25:11; 26:6;32:8;34:4;50:1; 76:4	<b>loss (2)</b>		
<b>large-scale (1)</b> 80:7	<b>level (10)</b> 40:21;41:4,7,16,24; 43:8;48:4;50:16;52:3, 5			
<b>last (16)</b> 6:24;10:19;20:8; 26:11;29:12;30:11; 35:15;43:12;46:9;	<b>levels (12)</b> 40:9,15;41:1,10,22; 43:3;44:4;46:12,19; 47:10;48:3,13			
	<b>liable (1)</b> 52:21			
	<b>license (1)</b> 80:9			
	<b>licenses (1)</b> 81:23			
	<b>life (3)</b> 11:23;48:11,11			

<b>medical (1)</b> 39:4	<b>miniscule (1)</b> 28:9	92:7,19,20	87:13	88:11
<b>meet (4)</b> 73:17;75:22;89:8; 90:6	<b>minute (3)</b> 51:1;62:9;85:16	<b>Motion's (3)</b> 4:19;6:10;92:11	<b>need (9)</b> 5:21;9:18;37:5; 44:19;67:16;70:15; 79:2;80:16;88:8	<b>numbers (8)</b> 22:12;25:15;30:2,8, 14;33:13;50:7;63:23
<b>MEETING (6)</b> 3:1,8;5:11;6:24; 91:23;92:23	<b>minutes (2)</b> 3:16;4:15	<b>mouth (1)</b> 83:21	<b>needed (2)</b> 16:5;87:8	<b>numerous (1)</b> 68:12
<b>meetings (1)</b> 3:17	<b>misheard (1)</b> 32:2	<b>move (5)</b> 3:22;4:18;6:3;10:5; 65:1	<b>needs (3)</b> 69:22;70:7;76:3	<b>Nysted (1)</b> 50:11
<b>Megan (3)</b> 75:6;83:7;85:23	<b>miss (2)</b> 89:18;91:7	<b>moved (4)</b> 59:18;60:3,17;92:8	<b>negative (1)</b> 64:2	<b>O</b>
<b>megawatts (1)</b> 42:4	<b>misspeaking (1)</b> 91:2	<b>movement (1)</b> 64:22	<b>negotiation (1)</b> 66:24	<b>objective (1)</b> 85:1
<b>members (11)</b> 3:11,19,19;8:4,20; 13:16;29:8;37:16; 71:22;77:10;82:12	<b>misspoke (1)</b> 32:3	<b>moving (3)</b> 60:18;65:3;75:23	<b>negotiations (7)</b> 68:7,20;69:8,11,12; 70:8,18	<b>objects (1)</b> 30:13
<b>mentioned (11)</b> 6:24;15:12,16;16:9; 21:6;42:19,22;51:15; 52:18;53:10;72:2	<b>MIT (1)</b> 11:19	<b>much (11)</b> 19:12;22:2;27:9; 29:16;34:15;37:7; 40:6;53:21;71:11; 75:4;76:24	<b>neighborhood (1)</b> 47:4	<b>observation (1)</b> 37:14
<b>met (4)</b> 5:11;68:11;84:18; 86:9	<b>mitigation (17)</b> 9:2,9;37:20;67:2,7, 17,19;68:14,22;69:16, 18;70:6,13,24;71:13; 90:24;91:3	<b>multibeam (1)</b> 59:21	<b>neither (1)</b> 49:24	<b>obtain (1)</b> 17:17
<b>meter (3)</b> 41:2,23;42:24	<b>Mm-hmm (1)</b> 65:7	<b>multiplier (2)</b> 22:5,6	<b>Newport (2)</b> 35:20;74:23	<b>obviously (2)</b> 39:5;53:4
<b>meters (1)</b> 20:24	<b>mobile (2)</b> 24:21;57:6	<b>multi-year (1)</b> 50:4	<b>news (1)</b> 73:9	<b>occur (2)</b> 31:23;83:9
<b>methodology (1)</b> 87:23	<b>model (1)</b> 40:8	<b>muscle (1)</b> 35:24	<b>Next (13)</b> 4:14;7:24;9:16; 36:18;37:23;38:2; 44:12,22;79:10; 90:23;91:23;92:2,6	<b>occurred (1)</b> 60:14
<b>Michael (3)</b> 13:19,24;15:13	<b>modeled (2)</b> 42:24;46:19	<b>muscles (2)</b> 36:8,9	<b>night (3)</b> 85:21;89:7,11	<b>occurring (1)</b> 74:20
<b>middle (1)</b> 37:8	<b>modeling (9)</b> 39:24;40:3,12,13; 41:9;42:19;43:9,13; 55:19	<b>mutually (1)</b> 7:19	<b>NOAA (11)</b> 16:2;17:16,16,23; 18:6,9,24;19:7;21:17; 33:4,5	<b>occurs (1)</b> 63:2
<b>might (6)</b> 12:17;15:19;31:2; 57:6,15;65:14	<b>modification (1)</b> 87:11	<b>N</b>	<b>name (10)</b> 10:15,17,18,19; 38:8,10;45:7;58:17; 66:6,9	<b>Ocean (8)</b> 5:16;11:19;63:3; 82:22;83:14,20;84:9, 22
<b>migration (1)</b> 48:2	<b>moment (1)</b> 72:22	<b>name (10)</b> 10:15,17,18,19; 38:8,10;45:7;58:17; 66:6,9	<b>Narragansett (7)</b> 14:11;44:6;46:14; 75:12;83:21,24;89:23	<b>Oceanographic (3)</b> 11:1,11;15:14
<b>miles (2)</b> 29:22,23	<b>Monday (1)</b> 7:10	<b>Narragansett (7)</b> 14:11;44:6;46:14; 75:12;83:21,24;89:23	<b>narrow (4)</b> 24:10;83:16,16,18	<b>October (3)</b> 75:5;81:15;83:9
<b>milestones (1)</b> 89:9	<b>monitor (1)</b> 79:21	<b>NASA (2)</b> 39:13,19	<b>nonexistent (1)</b> 35:16	<b>off (6)</b> 7:20;35:20;49:12; 53:10;55:23;64:23
<b>military (1)</b> 39:5	<b>months (5)</b> 8:1;23:8;24:7,9; 26:3	<b>National (1)</b> 63:20	<b>nonmobile (2)</b> 24:23;57:5	<b>offer (2)</b> 68:13,15
<b>milligauss (18)</b> 40:11,22;41:5,16, 17;42:1,13,17;43:20; 44:2,4;46:11;47:10, 11;49:23;52:3,5,11	<b>MOORE (1)</b> 9:15	<b>Nations (1)</b> 39:13	<b>norm (1)</b> 37:2	<b>official (1)</b> 39:18
<b>million (11)</b> 20:5,15,16,20;21:4; 22:15,17;25:22; 26:10;52:3,11	<b>moraine (1)</b> 78:1	<b>natural (1)</b> 45:24	<b>normally (1)</b> 25:8	<b>offshore (6)</b> 7:14;55:14,15;74:8; 84:23,24
<b>mind (1)</b> 57:21	<b>more (28)</b> 7:22;12:9;13:12,24; 16:4;17:6;20:24; 22:13;23:5;26:13; 29:2;32:8;34:3;37:15, 18;43:18;49:24;57:6; 58:9;64:11;79:6;80:8, 13;81:4,4,5,17;88:15	<b>Nature (6)</b> 7:2;12:9;47:17; 49:3;66:22;71:8	<b>north (1)</b> 47:6	<b>often (2)</b> 21:11;53:20
<b>minimal (2)</b> 87:14,19	<b>most (3)</b> 43:17;53:24;56:3	<b>Naval (1)</b> 11:15	<b>northern (1)</b> 18:19	<b>oil (1)</b> 55:16
<b>minimize (2)</b> 74:14;85:24	<b>mostly (1)</b> 32:23	<b>near (3)</b> 49:24;50:1;65:2	<b>note (6)</b> 32:22;76:12;82:4, 10;84:9;85:16	<b>Once (4)</b> 7:5;17:2;42:11; 89:14
<b>minimum (2)</b> 87:12;88:13	<b>motion (15)</b> 3:20;4:1,4,12,13,16, 22;5:6,7;6:1,7;91:19;	<b>necessarily (1)</b> 60:14	<b>November (11)</b> 3:10,18,24;4:16; 5:11;8:9;72:10;74:15; 75:5;76:17;83:9	<b>one (40)</b> 3:13,23;5:9;6:22; 7:11;16:2;20:4;22:12; 23:11;24:12,22;25:3; 41:2,19,23;42:8,17, 24;49:15;52:1,18; 58:9;59:13;61:2,8,13, 16,17;62:3;70:7;71:5; 75:22;79:6,10,13;

84:18;87:3;89:7,13; 91:1 <b>one-and-a-half (2)</b> 83:11;87:15 <b>one-and-three-quarters (2)</b> 83:11;87:16 <b>one-foot (2)</b> 41:12;43:21 <b>ongoing (4)</b> 68:8;70:9,19;71:14 <b>online (1)</b> 21:9 <b>only (6)</b> 18:7,8;30:5;51:24; 79:13;80:17 <b>onshore (1)</b> 74:9 <b>operate (1)</b> 21:20 <b>operating (3)</b> 27:12,17;50:20 <b>operation (3)</b> 25:9;50:22;64:8 <b>operations (5)</b> 7:8;17:5;21:19; 23:3;25:6 <b>opinion (1)</b> 30:7 <b>opportunity (1)</b> 8:21 <b>opposed (4)</b> 4:10;5:4;6:13; 92:17 <b>order (7)</b> 3:7,9;17:22;25:17; 43:19;52:7;88:8 <b>Oregon (1)</b> 45:22 <b>organisms (1)</b> 46:21 <b>organs (1)</b> 47:1	14:13;16:10;25:12; 26:20;32:5;34:6; 35:12;37:9;40:17; 42:15;43:13;47:4,8; 50:17;54:1,3,5;55:14; 69:17;70:16;74:22; 75:4;78:9,14,15;81:5; 83:21;87:18 <b>outpasses (1)</b> 88:13 <b>output (1)</b> 43:14 <b>outreach (2)</b> 39:9;86:20 <b>outset (2)</b> 87:15;90:3 <b>outside (4)</b> 43:6;54:18,20,22 <b>over (25)</b> 7:24;19:18,21;20:7, 19;35:11,11,18,19,21; 40:19;43:3;54:7,12; 60:12,17;61:9;63:3, 12;65:23;69:21; 71:17;72:21;75:23; 76:19 <b>overall (3)</b> 17:8;64:1;80:6 <b>overcome (1)</b> 72:20 <b>overestimate (1)</b> 26:4 <b>overestimating (3)</b> 24:16;31:5,8 <b>overlap (1)</b> 32:9 <b>overseen (1)</b> 7:1 <b>overview (1)</b> 12:10 <b>own (4)</b> 26:20;27:24;53:19; 82:3 <b>oysters (2)</b> 35:24;36:8	40:5 <b>pardon (1)</b> 10:10 <b>Park (1)</b> 6:24 <b>part (11)</b> 5:22;8:14;17:1,10; 39:13;43:2;48:16; 49:5;63:3;69:16;91:6 <b>particles (4)</b> 47:1,7,20;49:5 <b>particular (13)</b> 7:24;32:18;40:18; 61:7;62:4;65:4;72:12, 14,18;77:3,21;80:19; 89:2 <b>particularly (2)</b> 49:9;89:20 <b>parties (2)</b> 5:18;66:24 <b>partner (3)</b> 37:22;65:23;78:17 <b>partnered (1)</b> 86:16 <b>partnership (1)</b> 86:19 <b>parts (1)</b> 8:22 <b>pass (1)</b> 72:11 <b>passage (3)</b> 28:6;75:12,14 <b>PASSED (3)</b> 4:13;5:7;92:20 <b>passes (1)</b> 6:15 <b>past (1)</b> 46:1 <b>patience (1)</b> 3:3 <b>peak (3)</b> 42:3;43:14;48:13 <b>Pearsall (2)</b> 74:15;86:2 <b>Pearsall's (1)</b> 76:20 <b>peer-reviewed (2)</b> 64:5,5 <b>PENDING (1)</b> 67:14 <b>people (4)</b> 3:4;21:16;26:20; 27:16 <b>per (19)</b> 17:22,22,24;18:1,2, 23,23;19:11,21,22; 20:1,5,15,20;21:18; 22:9,15;28:1,3 <b>percent (6)</b> 24:3,5,22;25:2; 43:19;72:11 <b>perform (1)</b> 39:20	<b>performed (2)</b> 12:5;39:23 <b>period (9)</b> 23:8,10;24:6,7; 25:4;26:2;27:12;34:4, 7 <b>periods (1)</b> 23:13 <b>peripherally (1)</b> 91:21 <b>permit (1)</b> 18:8 <b>permits (1)</b> 18:7 <b>person (1)</b> 44:8 <b>pertaining (2)</b> 4:16;9:2 <b>phase (1)</b> 54:16 <b>PhD (2)</b> 11:18,19 <b>phonetic (1)</b> 28:19 <b>phrase (1)</b> 75:24 <b>phrasing (1)</b> 77:19 <b>physical (1)</b> 56:4 <b>piece (1)</b> 81:2 <b>pitch (1)</b> 71:3 <b>Place (10)</b> 6:24;25:20;27:4; 28:10;31:21;32:11; 37:1;59:23;60:15; 62:21 <b>placement (1)</b> 64:18 <b>places (1)</b> 27:18 <b>Planning (1)</b> 5:10 <b>platforms (2)</b> 55:14,16 <b>Please (16)</b> 9:11;10:10,15;12:8; 13:15;38:3,8;45:2,7; 58:12,17;65:21;66:1, 6;67:6,13 <b>plus (1)</b> 57:8 <b>PM (2)</b> 3:1;92:23 <b>point (12)</b> 9:6;30:7,18,20; 31:19;32:1;37:2; 42:16;68:3;71:5; 86:14;90:22 <b>pointed (2)</b> 43:12;88:1	<b>pointer (1)</b> 61:4 <b>policies (1)</b> 84:21 <b>Policy (5)</b> 11:11,16;13:20; 85:1,5 <b>polyethylene (1)</b> 54:23 <b>population (7)</b> 48:4;49:15;50:16, 19;51:12,19;88:16 <b>populations (3)</b> 50:5;51:15;62:15 <b>portion (15)</b> 12:16;15:18;18:5; 19:4,8,10,13,20; 22:14;34:23;40:19; 42:23;43:3;61:8; 83:24 <b>portions (1)</b> 80:22 <b>Portland (1)</b> 38:22 <b>ports (1)</b> 67:1 <b>posed (1)</b> 46:9 <b>position (7)</b> 3:20;11:9;38:17; 45:15,16;66:14;79:18 <b>possibility (2)</b> 51:21;52:9 <b>possible (2)</b> 17:4;19:15 <b>potential (4)</b> 26:15;41:8;63:1; 80:6 <b>potentially (2)</b> 27:11;56:22 <b>pots (1)</b> 87:8 <b>P-O-W-E-L-L (1)</b> 10:19 <b>power (6)</b> 43:16;51:5;54:17; 62:12;88:6;89:9 <b>powering (1)</b> 55:15 <b>practical (1)</b> 76:4 <b>practice (2)</b> 38:16;45:14 <b>precise (2)</b> 32:4,5 <b>precision (1)</b> 59:22 <b>preconstruction (1)</b> 89:4 <b>predicted (1)</b> 46:15 <b>predicts (1)</b> 48:13
<b>Ø</b>				
<b>Ørsted (2)</b> 66:13,14				
<b>O</b>	<b>P</b>			
<b>OSAMP (9)</b> 9:3;72:17;76:12,14; 77:21;78:7;84:12; 90:3,10 <b>OSCAR (1)</b> 5:17 <b>oscillates (1)</b> 47:15 <b>others (4)</b> 15:23;28:12;78:3,5 <b>Otherwise (3)</b> 34:15;73:17;82:6 <b>out (28)</b>	<b>package (5)</b> 67:3,7,17,20;68:23 <b>pads (1)</b> 64:18 <b>Page (1)</b> 31:20 <b>Palmquist (25)</b> 44:9,12;45:1,9,13; 52:20;53:1,9,17,21, 24;54:5;55:13,23; 56:14,18,22;57:1,8, 11,16,19,22;58:3;62:9 <b>P-A-L-M-Q-U-I-S-T (1)</b> 45:10 <b>parameters (1)</b>			



<p><b>preexisting (7)</b> 84:3,13;87:21;88:2; 89:21;90:1,4</p> <p><b>preferred (1)</b> 27:19</p> <p><b>prehearing (2)</b> 81:14;82:9</p> <p><b>premature (2)</b> 30:19;68:8</p> <p><b>prepare (1)</b> 15:2</p> <p><b>prepared (1)</b> 15:4</p> <p><b>present (13)</b> 3:12;8:21;25:13,21; 33:15;34:14;37:23; 50:7;53:4;69:3;71:17; 79:2;82:16</p> <p><b>presentation (3)</b> 14:3;69:17;71:2</p> <p><b>presented (2)</b> 3:21;28:13</p> <p><b>presumed (1)</b> 77:21</p> <p><b>presumption (14)</b> 72:6,20,20,21;73:3, 6;75:24;76:20;77:2,5, 15,16;79:1;82:20</p> <p><b>presumptive (1)</b> 9:5</p> <p><b>presumptively (1)</b> 72:19</p> <p><b>pre-surveys (1)</b> 30:13</p> <p><b>pretty (7)</b> 30:12;31:10;32:2; 35:22;37:7;56:23; 80:3</p> <p><b>prevent (1)</b> 54:12</p> <p><b>previous (2)</b> 3:17;51:14</p> <p><b>previously (3)</b> 8:9;15:8;40:23</p> <p><b>primarily (4)</b> 5:19;28:17;39:2; 48:11</p> <p><b>primary (2)</b> 55:24;66:21</p> <p><b>principal (1)</b> 38:18</p> <p><b>prior (8)</b> 3:15;11:20;39:8; 50:18,21;58:23; 83:12;88:18</p> <p><b>private (6)</b> 26:17,19,21,23; 27:3;28:8</p> <p><b>probably (11)</b> 11:24;14:16;24:11; 26:3;30:5;31:6;43:24; 53:8;67:10;73:14; 79:13</p>	<p><b>problem (2)</b> 9:20;52:24</p> <p><b>problems (1)</b> 29:11</p> <p><b>Procedure (1)</b> 5:10</p> <p><b>proceed (2)</b> 9:11;65:21</p> <p><b>process (6)</b> 5:23;17:3;19:14; 34:8;86:24;89:12</p> <p><b>produce (1)</b> 52:24</p> <p><b>produced (1)</b> 55:18</p> <p><b>produces (1)</b> 47:24</p> <p><b>product (1)</b> 15:3</p> <p><b>professional (2)</b> 11:21;38:20</p> <p><b>program (4)</b> 39:12;63:20;84:11, 22</p> <p><b>progress (5)</b> 68:19;69:14;71:15, 22;91:2</p> <p><b>progression (1)</b> 71:20</p> <p><b>prohibit (1)</b> 74:9</p> <p><b>prohibited (1)</b> 73:17</p> <p><b>project (55)</b> 7:7,14,24;8:12; 12:3,17,20,23,24; 13:2,7,17;14:8,9,21; 15:21;17:8,18;20:11; 22:24;25:9;32:6;39:7, 14;41:3;43:2;46:4,8; 51:2;63:6;64:21; 66:15,16,22;69:14; 73:21;76:5;82:1,6,23; 83:4,8,10;84:1,14,19; 85:4;86:3,5;87:1,9; 89:8,18;90:3,8</p> <p><b>projects (5)</b> 14:6;73:20;80:7,13; 81:16</p> <p><b>promulgate (1)</b> 5:21</p> <p><b>property (1)</b> 81:2</p> <p><b>proposal (1)</b> 37:20</p> <p><b>proposed (9)</b> 47:14;75:19;76:5; 84:19;85:7,17,18; 88:3,6</p> <p><b>proposition (2)</b> 78:2,5</p> <p><b>Protection (1)</b> 60:20</p>	<p><b>prove (1)</b> 78:15</p> <p><b>Proven (1)</b> 50:23</p> <p><b>provide (1)</b> 21:10</p> <p><b>provided (1)</b> 21:15</p> <p><b>Providence (2)</b> 81:6,19</p> <p><b>provides (2)</b> 74:6;84:3</p> <p><b>provision (2)</b> 80:17,20</p> <p><b>public (5)</b> 73:19,19;91:3,10, 10</p> <p><b>publications (1)</b> 48:24</p> <p><b>publicly (2)</b> 15:24;16:7</p> <p><b>published (1)</b> 64:4</p> <p><b>pull (1)</b> 60:19</p> <p><b>purchase (1)</b> 89:9</p> <p><b>purchases (1)</b> 16:19</p> <p><b>purple (1)</b> 17:10</p> <p><b>purpose (4)</b> 39:17;59:15;73:19; 75:10</p> <p><b>purposes (2)</b> 20:13;35:8</p> <p><b>put (12)</b> 7:4,20;9:1;59:23; 60:15;62:21;68:2,21; 73:10;74:4;76:16; 85:18</p> <p><b>putting (2)</b> 30:3;40:7</p>	<p>74:23</p> <p><b>racers (1)</b> 74:18</p> <p><b>racing (1)</b> 72:15</p> <p><b>raise (6)</b> 10:11;38:3;45:2; 58:12;66:2;91:19</p> <p><b>range (2)</b> 30:24;52:23</p> <p><b>rapidly (2)</b> 37:12;41:11</p> <p><b>rate (1)</b> 54:7</p> <p><b>rather (2)</b> 8:1;83:13</p> <p><b>reach (1)</b> 69:4</p> <p><b>reaches (1)</b> 18:20</p> <p><b>react (1)</b> 52:1</p> <p><b>reaction (2)</b> 51:7;62:11</p> <p><b>reactions (1)</b> 54:13</p> <p><b>read (7)</b> 8:12,14;23:6;67:13, 14;80:1,3</p> <p><b>readily (1)</b> 16:1</p> <p><b>readings (1)</b> 42:13</p> <p><b>ready (2)</b> 6:6;30:9</p> <p><b>real (1)</b> 36:19</p> <p><b>reality (1)</b> 20:23</p> <p><b>really (15)</b> 9:20;11:23;18:8; 24:13;29:1;32:23; 33:2;36:11,11;64:15; 71:21;74:7;83:15; 87:13;89:24</p> <p><b>reason (3)</b> 77:22;78:14;87:3</p> <p><b>reasonable (6)</b> 31:1;53:15;74:13; 75:9;84:4;88:2</p> <p><b>reasons (5)</b> 77:1,1;85:11;87:9; 90:6</p> <p><b>rebut (3)</b> 72:20;73:2;77:2</p> <p><b>rebuttable (1)</b> 82:20</p> <p><b>rebutted (3)</b> 72:6;73:5;77:5</p> <p><b>rebutting (5)</b> 75:23;76:19;77:15, 16;78:13</p> <p><b>recall (1)</b></p>	<p>89:10</p> <p><b>recap (2)</b> 42:2;73:10</p> <p><b>receive (1)</b> 28:11</p> <p><b>received (1)</b> 38:24</p> <p><b>recently (1)</b> 14:1</p> <p><b>recognize (1)</b> 60:22</p> <p><b>recognizes (2)</b> 76:14;81:20</p> <p><b>reconvene (1)</b> 70:3</p> <p><b>record (13)</b> 3:11;8:7,13,14,15; 10:16;38:9;45:8; 58:18;66:7;71:20; 74:4;82:5</p> <p><b>recorded (1)</b> 61:14</p> <p><b>recover (1)</b> 29:14</p> <p><b>recovery (1)</b> 29:17</p> <p><b>recreation (2)</b> 74:16;78:3</p> <p><b>recreational (11)</b> 26:17,19,24;27:23; 72:12,13;73:12; 75:11;76:11,21;86:3</p> <p><b>recreationally (1)</b> 83:1</p> <p><b>rectangle (1)</b> 61:11</p> <p><b>rectangles (1)</b> 61:10</p> <p><b>red (4)</b> 61:11;73:15,15; 83:23</p> <p><b>reduce (4)</b> 30:8;43:2,7,9</p> <p><b>reduced (3)</b> 24:22;42:13,17</p> <p><b>reduces (1)</b> 33:15</p> <p><b>reduction (4)</b> 25:2;41:7;43:23,23</p> <p><b>redundant (1)</b> 24:12</p> <p><b>refer (4)</b> 21:7;47:22;70:4; 90:4</p> <p><b>reference (1)</b> 71:6</p> <p><b>referenced (2)</b> 50:12;55:11</p> <p><b>referred (3)</b> 5:17;46:12;47:12</p> <p><b>referring (1)</b> 47:23</p> <p><b>reflect (1)</b></p>
		<b>Q</b>		
		<p><b>quarter (7)</b> 32:9,13,18,19,21, 23,23</p> <p><b>quarters (2)</b> 31:22;32:12</p> <p><b>quay (1)</b> 7:4</p> <p><b>quick (1)</b> 64:16</p> <p><b>quickly (3)</b> 29:13;30:12;84:16</p> <p><b>quite (2)</b> 7:2;64:23</p>		
		<b>R</b>		
		<b>Race (1)</b>		

<p>3:11 <b>reflective (1)</b> 19:7 <b>reflects (2)</b> 21:20;34:22 <b>regarding (2)</b> 53:3;55:21 <b>regattas (2)</b> 72:15;74:18 <b>region (2)</b> 18:14;35:10 <b>regional (2)</b> 63:19;24 <b>regulation (1)</b> 5:13 <b>regulations (3)</b> 5:21;75:20;76:2 <b>related (1)</b> 6:2 <b>relates (1)</b> 72:14 <b>relating (3)</b> 59:7;60:6;62:15 <b>relative (10)</b> 29:20;32:16,20; 44:20;49:14,19; 56:17;57:5;64:17; 91:5 <b>relatively (2)</b> 40:16;56:10 <b>relevant (9)</b> 32:24;33:6;38:20; 45:17;48:20;49:2,9; 74:7;87:9 <b>relief (2)</b> 9:4;72:24 <b>rely (2)</b> 15:23;90:4 <b>remain (1)</b> 48:9 <b>remained (1)</b> 51:19 <b>remaining (1)</b> 8:22 <b>remember (1)</b> 7:16 <b>remind (2)</b> 59:3;89:6 <b>rendered (1)</b> 80:24 <b>renewable (2)</b> 73:20;84:24 <b>repeat (1)</b> 46:10 <b>rephrase (1)</b> 67:24 <b>replicated (1)</b> 15:23 <b>repopulate (1)</b> 24:24 <b>repopulated (1)</b> 31:2 <b>report (19)</b></p>	<p>5:10;6:23;15:4,6; 26:14;30:17;31:19; 32:11;34:16;41:6; 48:24;60:21;61:1,3; 63:22;70:16;79:12; 85:14;90:24 <b>REPORTER (1)</b> 69:24 <b>reports (7)</b> 5:8;6:18,20,21; 28:23;51:4;62:12 <b>represent (2)</b> 29:3;68:21 <b>representative (1)</b> 39:19 <b>representatives (2)</b> 68:12,24 <b>represents (1)</b> 61:10 <b>request (3)</b> 72:3,4;83:15 <b>requested (2)</b> 87:12;88:17 <b>requesting (1)</b> 82:21 <b>requests (1)</b> 9:4 <b>require (1)</b> 76:2 <b>required (4)</b> 83:13,18;87:17,18 <b>requirement (5)</b> 77:2;83:20,23;85:6; 88:13 <b>requirements (3)</b> 9:3;73:18;84:17 <b>requires (1)</b> 82:23 <b>requiring (1)</b> 89:2 <b>reread (1)</b> 8:15 <b>research (7)</b> 11:10;45:21;46:18; 47:8;51:8;53:10;65:9 <b>Resilience (1)</b> 5:16 <b>resource (3)</b> 13:22;45:24;78:20 <b>Resources (4)</b> 3:9;76:7,11;84:21 <b>respect (8)</b> 57:4,18;69:11; 75:17;79:18;82:2; 87:3;90:9 <b>respond (1)</b> 30:22 <b>responded (1)</b> 21:21 <b>RESPONSE (13)</b> 4:6,11,24;5:5;6:14; 8:5;58:6;67:10;82:13; 90:13;91:17;92:13,18</p>	<p><b>responsibilities (1)</b> 66:21 <b>restrictions (2)</b> 85:24;89:16 <b>result (12)</b> 12:22;25:16;64:7; 65:3;68:12;76:6;85:7, 12;86:4,5,18;88:9 <b>resume (2)</b> 7:10;25:8 <b>returned (1)</b> 60:16 <b>revenue (2)</b> 21:17;22:19 <b>review (6)</b> 4:15;5:19;7:14; 29:1;49:5;51:24 <b>reviews (1)</b> 28:22 <b>Revolution (55)</b> 3:14;7:13,15,18,21; 8:8,10,22;12:3,6,11, 12,15;13:17;14:11; 15:1,8,19;21:7;26:18; 28:5;39:7,20;46:3; 47:14;48:20;49:10; 52:6,10;55:19;66:17, 20;67:3;68:13,17; 72:5,10;74:2,22;76:3; 77:5;82:20;84:4,5,12; 85:3,10;86:16,19; 87:24;88:1,3,7,12; 89:3 <b>Rhode (25)</b> 3:8;5:13,14;13:12; 14:19;15:2;16:3,12, 16,23;18:13;20:6,18; 22:13,18;27:1;28:6, 10;29:20;34:23;35:1; 37:11;63:20;72:13; 89:24 <b>RIDEM (16)</b> 19:13,16,16;33:1,2; 84:3,6,13;86:16,19, 20;87:2,22;88:1,5; 89:22 <b>RIDEM's (1)</b> 87:6 <b>Right (33)</b> 7:8;9:16;10:11; 14:18,22;31:5;35:6; 36:16;38:3;42:4;44:8, 16;45:2;55:8;56:16, 21;58:8,12,24;60:2, 18,20;61:5,18;65:20; 66:2;69:20;77:23; 78:11;81:7,12,17; 91:15 <b>ring (1)</b> 54:20 <b>risk (2)</b> 45:23;89:15 <b>risk-assessment (1)</b></p>	<p>53:18 <b>River (5)</b> 35:10,17;54:2;81:6, 19 <b>Rob (1)</b> 28:24 <b>Robin (5)</b> 8:10;10:4;65:23; 85:16;86:2 <b>ROBINSON-HALL (18)</b> 31:18;32:10;33:9; 55:10,20;56:12,15,20, 23;57:3,10,14,17,20, 24;58:4;64:15;65:6 <b>Rock (2)</b> 56:14,15 <b>rocks (1)</b> 30:13 <b>role (4)</b> 39:10,14;66:21; 71:6 <b>Ron (1)</b> 55:9 <b>room (1)</b> 28:24 <b>Ross (3)</b> 74:15;76:20;86:2 <b>roughly (2)</b> 18:15;65:15 <b>route (20)</b> 17:11,15,17,21,23; 18:16;19:1,5,9,21; 23:12;24:3,5;27:13; 40:19;74:10;75:13, 18,18,20 <b>routes (3)</b> 20:15;21:24;48:14 <b>ruin (1)</b> 37:6 <b>rulemaking (4)</b> 5:12,22,24;85:19 <b>run (2)</b> 5:19;84:16 <b>running (1)</b> 88:21 <b>rush (1)</b> 8:1</p>	<p>18:60;8;63:9,9,21; 64:20;65:16;76:19; 77:1;87:23 <b>SAMP (5)</b> 82:22;83:14,20; 84:9,22 <b>samples (2)</b> 88:8,11 <b>sampling (3)</b> 63:4;88:15;89:4 <b>sands (1)</b> 64:24 <b>satisfied (1)</b> 77:1 <b>SAVAGE (2)</b> 9:23;79:23 <b>save (1)</b> 70:24 <b>saw (4)</b> 55:9;60:12,16; 91:21 <b>saying (3)</b> 32:12;42:16;78:13 <b>say-so (1)</b> 81:6 <b>scale (1)</b> 21:19 <b>scan (1)</b> 80:20 <b>scenario (1)</b> 12:24 <b>schedule (3)</b> 31:20;32:5;75:2 <b>scheduled (1)</b> 23:7 <b>schedules (1)</b> 89:8 <b>science (3)</b> 38:16;39:9,14 <b>sciences (1)</b> 45:14 <b>scientific (2)</b> 62:21;63:5 <b>scientist (1)</b> 45:16 <b>scope (2)</b> 80:6;86:21 <b>scoped (1)</b> 88:21 <b>scour (1)</b> 65:5 <b>scouring (2)</b> 64:17,19 <b>screen (1)</b> 9:20 <b>sea (3)</b> 35:17;53:16,20 <b>seafloor (8)</b> 59:20,24;60:8,9,16; 61:22;62:2;65:13 <b>seafood (1)</b> 36:23 <b>seal (1)</b></p>
<b>S</b>				
		<p><b>safe (1)</b> 92:22 <b>sailboat (2)</b> 72:15;74:18 <b>sailing (1)</b> 14:15 <b>Sakonnet (2)</b> 35:10,17 <b>saltwater (1)</b> 54:13 <b>same (17)</b> 22:5;43:16;46:23; 47:18,20;48:9;55:16,</p>		

54:12 <b>seasick (1)</b> 53:22 <b>seasonal (5)</b> 33:1,3,5,8;63:22 <b>seasonality (2)</b> 32:14,15 <b>seasons (1)</b> 87:18 <b>second (16)</b> 4:2,3,20,21;6:8,9; 23:9,16;26:5,41:9; 49:5;81:11,13;85:6; 92:9,10 <b>seconded (4)</b> 4:4,22;6:11;92:12 <b>section (9)</b> 17:11;50:23;61:7; 71:6;81:13;82:21,22, 23:90:9 <b>security (1)</b> 3:4 <b>sediment (7)</b> 30:12;56:2;60:17; 62:2;64:19,23;65:3 <b>seeing (1)</b> 42:12 <b>seeking (1)</b> 5:12 <b>seem (1)</b> 30:14 <b>seems (2)</b> 30:3;81:8 <b>segment (2)</b> 30:5,6 <b>semi-monthly (1)</b> 3:7 <b>senior (3)</b> 45:16;66:15,16 <b>sense (3)</b> 35:2;86:12;90:1 <b>sensitive (1)</b> 48:10 <b>September (3)</b> 32:7,13,22 <b>series (2)</b> 39:16;49:11 <b>serving (1)</b> 75:9 <b>session (1)</b> 29:12 <b>set (8)</b> 16:7;17:16;18:21; 21:7;25:10;33:4; 35:19;76:1 <b>settle (1)</b> 19:23 <b>settling (1)</b> 30:12 <b>seven-year (1)</b> 62:17 <b>several (4)</b> 28:14;60:13;75:1;	77:23 <b>severe (1)</b> 25:11 <b>shelf (2)</b> 56:17,19 <b>shellfish (5)</b> 23:19;24:19,23; 57:6,7 <b>shielding (3)</b> 54:9,10;55:3 <b>shipwrecks (1)</b> 78:4 <b>shore (3)</b> 57:2;74:7,10 <b>shoreline (1)</b> 74:10 <b>short (4)</b> 11:4;29:14;37:19; 80:4 <b>show (1)</b> 68:18 <b>showed (3)</b> 26:1;41:10;74:10 <b>showing (1)</b> 77:16 <b>shown (1)</b> 52:1 <b>shows (1)</b> 78:19 <b>side (9)</b> 24:15;31:4,7;41:15, 20,21;42:12,16;71:16 <b>side-scan (2)</b> 59:21;61:15 <b>sight (1)</b> 75:17 <b>signals (1)</b> 53:5 <b>significant (11)</b> 27:6;41:7;56:3,24; 64:2;76:6;85:7,12,15; 86:5;89:17 <b>significantly (1)</b> 88:13 <b>similar (9)</b> 14:7;25:10;40:22; 41:17;51:14;56:8,10, 11;63:21 <b>similarities (1)</b> 47:19 <b>simultaneously (1)</b> 5:22 <b>sit (2)</b> 9:16,18 <b>site (12)</b> 7:8;17:18;29:20; 50:17,20;62:18,22,23; 75:15;86:8,11;88:24 <b>sites (2)</b> 49:13,17 <b>six (9)</b> 23:8;24:7;26:3; 41:3;43:1;84:17;	85:22;87:18;90:7 <b>six-month (2)</b> 24:1;27:12 <b>sixth (1)</b> 88:23 <b>size (2)</b> 40:6;80:5 <b>Skenyon (2)</b> 40:22;41:6 <b>sketched (1)</b> 18:15 <b>slides (1)</b> 26:12 <b>SLOAN (1)</b> 92:1 <b>small (6)</b> 27:14,22;30:5,6; 34:22;80:15 <b>smaller (2)</b> 25:13;27:9 <b>sole (1)</b> 81:21 <b>somebody (1)</b> 53:3 <b>somehow (1)</b> 22:23 <b>sometime (1)</b> 32:7 <b>somewhat (2)</b> 72:8;75:24 <b>somewhere (3)</b> 27:13,20;52:7 <b>sonar (2)</b> 59:21;61:15 <b>soon (2)</b> 51:4;62:12 <b>Sorry (2)</b> 9:22;91:20 <b>sort (2)</b> 22:5;27:21 <b>Sound (5)</b> 14:19;28:6;72:13; 75:4;89:24 <b>sounds (1)</b> 53:15 <b>sources (2)</b> 16:1;28:14 <b>south (3)</b> 7:3;14:7;18:18 <b>southern (1)</b> 75:3 <b>Space (1)</b> 39:11 <b>spacially (1)</b> 19:16 <b>speak (1)</b> 91:5 <b>speaking (2)</b> 35:3;68:5 <b>speaks (1)</b> 79:12 <b>special (21)</b> 9:4;70:11;72:3,4,6,	24;73:2,7,13,16;74:5, 12;75:8,21;76:9,18; 77:4,14;80:16;82:19; 90:18 <b>specialist (1)</b> 11:10 <b>speciality (1)</b> 39:2 <b>specialization (1)</b> 44:10 <b>species (12)</b> 24:21;49:16;50:7,9, 16;53:12;56:8,11; 58:2;83:2;86:1;90:2 <b>specific (2)</b> 12:9;87:9 <b>specifically (5)</b> 14:24;49:13;50:5, 15;87:7 <b>specified (1)</b> 41:3 <b>speed (1)</b> 30:4 <b>spell (5)</b> 10:16;38:9;45:8; 58:18;66:7 <b>spelled (1)</b> 32:5 <b>spoke (1)</b> 28:17 <b>sponsored (2)</b> 39:12;64:22 <b>spot (1)</b> 9:14 <b>square (6)</b> 17:22;18:2,23; 19:11,21;20:1 <b>stable (1)</b> 51:20 <b>staff (9)</b> 3:11;6:21,23;7:22; 30:17;70:15;71:5; 79:12;85:14 <b>stages (2)</b> 48:11,11 <b>stakeholders (2)</b> 7:23;86:24 <b>Stamford (1)</b> 38:24 <b>stand (3)</b> 9:14,15;10:1 <b>standard (2)</b> 87:13;89:1 <b>standards (1)</b> 86:9 <b>standpoint (1)</b> 73:8 <b>start (4)</b> 29:14;79:9;89:11, 13 <b>started (4)</b> 63:7;87:4;88:11; 89:15	<b>starting (1)</b> 17:18 <b>State (44)</b> 3:8;5:16;10:15; 13:12;14:13;15:2,8, 18;16:12;17:11,15, 19;18:5,7,11;19:1,4, 13,20;20:18;21:14; 22:14;26:24;27:5; 28:2;38:8;45:7,20,22; 49:21;50:6;58:17; 63:20;66:6;67:1,9; 73:24;74:3;77:24; 80:14,15;83:5,22; 86:17 <b>state-federal (1)</b> 17:12 <b>static (1)</b> 46:22 <b>stay (2)</b> 7:19;78:9 <b>steel (4)</b> 43:6;54:10,11,20 <b>stenographer (1)</b> 69:21 <b>steps (1)</b> 74:13 <b>Steve (1)</b> 28:24 <b>still (6)</b> 47:5;55:17;57:12; 68:7;70:8;88:14 <b>stipulation (5)</b> 79:13,14;81:8,9; 82:5 <b>stipulations (1)</b> 30:17 <b>stop (1)</b> 89:12 <b>storm (1)</b> 65:1 <b>storms (1)</b> 36:10 <b>stripping (1)</b> 36:10 <b>structure (1)</b> 56:4 <b>student (2)</b> 11:7,24 <b>studies (10)</b> 48:10,18,20;49:2,8, 11,13,22;51:14;65:9 <b>study (8)</b> 50:4,10,14,15; 57:15;63:21;64:20,21 <b>stuff (1)</b> 54:13 <b>subcommittee (6)</b> 5:8,10,11;6:4,17,19 <b>subject (3)</b> 80:9,23;81:1 <b>submerged (3)</b> 30:13;79:15;81:22
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<p><b>submitted (1)</b> 85:10</p> <p><b>substantial (2)</b> 73:24;74:2</p> <p><b>sufficient (1)</b> 88:15</p> <p><b>suggest (1)</b> 17:20</p> <p><b>suggested (1)</b> 72:23</p> <p><b>suggestion (1)</b> 69:20</p> <p><b>suggests (1)</b> 18:24</p> <p><b>sum (1)</b> 22:12</p> <p><b>summarized (1)</b> 86:2</p> <p><b>Summary (3)</b> 60:21;61:1,3</p> <p><b>Sunrise (1)</b> 14:9</p> <p><b>supplement (2)</b> 84:4;88:2</p> <p><b>supply (2)</b> 87:5;88:21</p> <p><b>support (3)</b> 21:8;39:10;77:22</p> <p><b>supported (1)</b> 16:18</p> <p><b>Sure (11)</b> 11:14;13:18;15:9; 32:2;34:18;36:6; 44:22;45:19;64:10; 70:1;79:11</p> <p><b>surrounding (1)</b> 62:23</p> <p><b>survey (42)</b> 16:8;21:8,9,22; 50:4;59:6,10,11,15, 19:60;7:20;61:2; 62:14,18,18,20;63:15, 17;83:5,5;84:3,6,10; 86:17,18,21,23;87:3, 8,22,23,24;88:1,2,3,7, 9,10,12,21;89:22</p> <p><b>surveyed (1)</b> 50:17</p> <p><b>surveys (5)</b> 50:19;51:12,16; 63:19;65:15</p> <p><b>survival (1)</b> 48:12</p> <p><b>swear (6)</b> 10:8,11;38:4;45:3; 58:13;66:3</p> <p><b>switch (2)</b> 54:7;62:6</p> <p><b>systems (1)</b> 11:19</p>	<p><b>table (3)</b> 9:16,17;23:6</p> <p><b>talk (8)</b> 13:12;16:3;17:6; 23:4;30:16;31:20; 51:1;71:20</p> <p><b>talked (3)</b> 29:13;43:21;88:5</p> <p><b>talking (7)</b> 29:18;76:9;77:15; 78:2;83:19;86:11; 87:13</p> <p><b>target (1)</b> 85:22</p> <p><b>targeted (2)</b> 83:1;86:23</p> <p><b>team (2)</b> 7:19,21</p> <p><b>technology (1)</b> 11:16</p> <p><b>telephone (1)</b> 28:18</p> <p><b>ten (5)</b> 18:23;20:8;41:20, 21;42:15</p> <p><b>terms (2)</b> 32:4;64:18</p> <p><b>Test (1)</b> 78:23</p> <p><b>testified (4)</b> 44:14;58:23;75:6; 85:21</p> <p><b>testify (2)</b> 44:23;84:2</p> <p><b>testimony (12)</b> 40:23;68:19;74:1, 11,16;76:20;83:3,7; 85:3,20;86:15;89:7</p> <p><b>tests (1)</b> 53:16</p> <p><b>Thanks (1)</b> 3:3</p> <p><b>Thanksgiving (2)</b> 7:9;92:22</p> <p><b>theoretical (1)</b> 41:8</p> <p><b>therefore (1)</b> 90:8</p> <p><b>thick (3)</b> 41:12;42:8;43:21</p> <p><b>thinking (1)</b> 20:13</p> <p><b>third (9)</b> 31:22;32:8,11,13, 18,21,22;50:4;86:7</p> <p><b>though (2)</b> 81:8,10</p> <p><b>thought (2)</b> 30:24;31:11</p> <p><b>thousands (4)</b> 27:2,3,8,8</p> <p><b>three (7)</b> 5:18,20;37:18;</p>	<p>41:14;54:16;64:5; 83:21</p> <p><b>three-and-a-half (2)</b> 41:14;42:11</p> <p><b>throughout (2)</b> 63:17;90:2</p> <p><b>throw (2)</b> 78:13,14</p> <p><b>tidal (3)</b> 80:8,22;81:1</p> <p><b>tides (1)</b> 80:23</p> <p><b>tight (1)</b> 89:8</p> <p><b>times (3)</b> 18:24;52:8;68:12</p> <p><b>tiny (1)</b> 46:24</p> <p><b>tip (1)</b> 75:3</p> <p><b>title (1)</b> 11:10</p> <p><b>Today (4)</b> 3:9;28:13,24;68:22</p> <p><b>Todd (1)</b> 28:19</p> <p><b>together (3)</b> 15:12;34:15;40:7</p> <p><b>told (4)</b> 35:5;53:7;54:9; 92:6</p> <p><b>tomorrow (1)</b> 78:23</p> <p><b>tonight (8)</b> 8:21;9:1;14:3;67:4, 8;69:2,17;71:16</p> <p><b>Tony (1)</b> 10:8</p> <p><b>took (3)</b> 16:10;50:18;86:17</p> <p><b>tools (1)</b> 59:20</p> <p><b>top (8)</b> 20:16;42:5,9,24; 55:24;60:19;62:2; 80:2</p> <p><b>total (10)</b> 17:1;20:19;21:20; 22:4,20;24:7;26:9; 28:10;34:23;35:1</p> <p><b>totally (2)</b> 57:17;78:1</p> <p><b>touched (1)</b> 88:19</p> <p><b>tow (1)</b> 63:11</p> <p><b>traditional (1)</b> 86:12</p> <p><b>translate (1)</b> 25:22</p> <p><b>transmission (4)</b> 39:6;40:2,5,10</p> <p><b>trap (2)</b></p>	<p>83:5;86:17</p> <p><b>trapping (1)</b> 50:3</p> <p><b>traps (1)</b> 35:19</p> <p><b>trawl (8)</b> 60:9,12,18;61:16, 23;63:14,15,22</p> <p><b>trawling (4)</b> 60:6,10;65:10,18</p> <p><b>trawls (1)</b> 61:24</p> <p><b>tried (7)</b> 15:15;31:3,7,13; 34:9;35:4;36:15</p> <p><b>triggered (1)</b> 80:17</p> <p><b>trips (5)</b> 21:16;27:3,8;28:8, 10</p> <p><b>trouble (1)</b> 36:9</p> <p><b>true (2)</b> 36:17;37:10</p> <p><b>trust (2)</b> 71:15,23</p> <p><b>truth (15)</b> 10:12,12,13;38:4,5, 5;45:3,4,4;58:13,14, 14;66:3,4,4</p> <p><b>try (10)</b> 24:14;32:24;35:3; 36:17;37:6;72:9;76:1; 77:19;79:24;86:12</p> <p><b>trying (2)</b> 27:21;37:5</p> <p><b>Tuesday (2)</b> 3:10,17</p> <p><b>turbine (1)</b> 43:15</p> <p><b>turbines (1)</b> 65:2</p> <p><b>turn (5)</b> 9:21,23;14:24; 50:24;65:23</p> <p><b>turned (2)</b> 51:5;62:12</p> <p><b>turns (1)</b> 58:10</p> <p><b>Twenty-three (1)</b> 29:23</p> <p><b>two (29)</b> 3:17;6:23;9:3;16:1; 20:3,4,7,23;23:10,22, 24;24:9;28:23;37:18, 23;40:13,18;43:11; 49:1,13,18;56:5;63:8; 79:6;82:24;83:13,17; 87:17;89:3</p> <p><b>type (2)</b> 49:6;63:10</p> <p><b>types (3)</b> 36:1;74:19;81:20</p>	<p><b>typical (1)</b> 43:18</p> <p><b>typically (1)</b> 13:9</p> <hr/> <p style="text-align: center;"><b>U</b></p> <hr/> <p><b>UN (1)</b> 39:19</p> <p><b>unaccessible (1)</b> 24:6</p> <p><b>unanimously (1)</b> 6:15</p> <p><b>unavoidable (1)</b> 9:22</p> <p><b>uncertain (1)</b> 27:24</p> <p><b>under (8)</b> 9:3;39:12;42:17; 47:5;72:17;73:14,15; 84:12</p> <p><b>underestimate (2)</b> 18:4;19:3</p> <p><b>undergraduate (2)</b> 11:14;45:19</p> <p><b>undertaken (1)</b> 87:2</p> <p><b>Underwater (3)</b> 53:22;76:13;84:22</p> <p><b>undue (2)</b> 89:1,4</p> <p><b>unenergized (2)</b> 56:2,6</p> <p><b>unfortunately (1)</b> 19:15</p> <p><b>unique (1)</b> 80:5</p> <p><b>United (1)</b> 39:13</p> <p><b>units (1)</b> 40:10</p> <p><b>University (5)</b> 38:22,24;45:21,22; 54:4</p> <p><b>unless (3)</b> 72:19;77:8;82:10</p> <p><b>up (19)</b> 9:8,12;18:19,20; 22:12;26:14;37:4,8, 19;41:5;55:1,6;60:19; 61:17,18;75:13; 79:21;80:21;88:21</p> <p><b>upon (1)</b> 80:6</p> <p><b>upper (1)</b> 61:5</p> <p><b>upset (1)</b> 30:10</p> <p><b>usable (1)</b> 81:4</p> <p><b>use (13)</b> 13:8;16:2;21:2; 49:18;62:22;69:24;</p>
<b>T</b>				

73:23;74:14;75:7; 80:9;81:23;85:8;86:6 <b>used (3)</b> 7:6;22:6;59:20 <b>uses (1)</b> 87:23 <b>using (1)</b> 62:18 <b>usually (1)</b> 35:12	<b>walk (2)</b> 15:6;47:5 <b>walked (1)</b> 44:4 <b>wander (1)</b> 54:14 <b>wants (2)</b> 9:16;81:6 <b>Washington (2)</b> 45:20;54:4 <b>Water (5)</b> 6:24;55:22;56:16; 58:1;63:9 <b>water-dependent (1)</b> 73:23 <b>waters (30)</b> 14:13,14,15;15:2,8, 18;17:11,12,15,19,19; 18:5,10,11,17;19:1,2, 4,8,10,13;21:14;27:4; 33:7;37:11;67:9; 77:24;83:5,22;86:17 <b>waters' (2)</b> 19:20;22:14 <b>way (26)</b> 7:3;12:1;13:2; 15:22;17:18;18:19; 19:6;23:20;24:20; 25:6;27:6;29:15;30:9; 34:4,5;35:4;37:13; 46:23;47:7,20;55:9; 57:13;62:23;71:17; 74:8;77:19 <b>ways (1)</b> 28:16 <b>wealth (2)</b> 84:7;87:21 <b>Weather (1)</b> 39:11 <b>weekend (1)</b> 26:20 <b>weight (1)</b> 63:18 <b>Weir (3)</b> 13:19,24;15:13 <b>weren't (1)</b> 57:12 <b>west (4)</b> 28:6;53:10;75:11, 14 <b>what's (5)</b> 19:7;29:21;33:6; 38:17;45:15 <b>whenever (1)</b> 30:24 <b>whereas (1)</b> 47:17 <b>WHEREUPON (5)</b> 4:9;5:3;6:12;67:14; 92:16 <b>whole (9)</b> 10:12;11:23;23:6; 28:2;35:13;38:5;45:4;	58:14;66:3 <b>whose (1)</b> 55:5 <b>wide (3)</b> 20:3;52:23;56:20 <b>wider (1)</b> 20:12 <b>width (1)</b> 24:4 <b>WILLIS (6)</b> 5:9;6:16,19,22;8:4; 92:2 <b>Wind (75)</b> 3:14;7:13,15,18,21; 8:8,22;12:3,6,11,12, 15;13:17;14:6,7,11; 15:8,19;21:7;26:18; 28:5;39:7,20;43:14; 46:3;47:14;48:20; 49:10;50:11,18,20; 51:1,2,5,13,19;52:6, 10,10;55:19;59:7,13; 61:6;62:8,13,15,22; 63:1,10;64:3,7;66:17, 20;67:3;68:13,17; 72:5,10;74:2,8,22; 76:3;77:5;82:20;84:5, 12;85:3,10;86:16,19; 88:1,3,7,12;89:3 <b>window (1)</b> 24:1 <b>windows (1)</b> 89:19 <b>Wind's (2)</b> 15:1;87:24 <b>winter (4)</b> 26:6;28:8;31:24; 32:4 <b>wires (1)</b> 54:21 <b>wisely (1)</b> 78:9 <b>wishes (2)</b> 79:5;91:4 <b>within (6)</b> 66:22;76:14;82:8; 84:13;85:14,17 <b>without (2)</b> 9:8;61:24 <b>witness (34)</b> 9:9;10:9;18:2;29:8, 24;30:22;31:13;32:3, 21;33:17,24;34:2,9, 21;36:15,21;37:10; 38:2,7,10;44:12,23; 45:6,9;52:16;58:9,10, 16,19;64:20;65:7,12; 66:5,8 <b>witnesses (7)</b> 9:2;37:18,24;52:14; 75:2;76:17;78:18 <b>wondering (1)</b> 69:22	<b>Woods (15)</b> 11:1,4,6,9,20,22,23; 12:13;13:16,23; 14:17;15:14;21:9; 26:16;68:10 <b>word (2)</b> 12:18;13:6 <b>words (1)</b> 78:22 <b>work (41)</b> 10:6,24;11:1,16; 12:5,10,11,12;14:7,8, 18,24;15:3;23:7,10; 28:5,13;29:2;32:7; 38:14,15;39:20,22; 45:13,14;46:6;53:24; 59:6,10;62:7,14; 66:17,19;67:7;68:10; 74:9;79:19;82:3,3; 86:22;88:20 <b>worked (10)</b> 11:3,6;13:16,20; 14:2,5;15:12;24:4; 51:2;67:2 <b>working (8)</b> 13:22;14:16,23; 20:12,14;23:12;25:2; 39:1 <b>works (1)</b> 92:4 <b>worried (1)</b> 29:19 <b>worth (2)</b> 83:12;87:16 <b>wrap (2)</b> 26:14;37:19 <b>wrap-up (1)</b> 58:10 <b>written (1)</b> 15:3	45:23;83:12;87:16 <b>yellow (5)</b> 22:1,10;80:3;81:11, 13
<b>Z</b>				
<b>zero (4)</b> 46:23,23;47:18; 58:1 <b>zone (1)</b> 78:9				
<b>1</b>				
<b>1 (5)</b> 3:18,24;8:9;72:10; 76:17 <b>1,025 (4)</b> 40:22;41:16;43:20; 44:2 <b>1,100 (2)</b> 47:11;49:22 <b>1.4 (2)</b> 20:16;22:15 <b>1.6 (5)</b> 20:14;24:4;25:1; 52:3,11 <b>10 (2)</b> 25:2;72:11 <b>11,9.9 (3)</b> 82:22,23;90:9 <b>112,000 (2)</b> 25:18;34:11 <b>13 (1)</b> 92:5 <b>13th (3)</b> 92:1,2,5 <b>15 (1)</b> 45:23 <b>15th (1)</b> 5:11 <b>16 (1)</b> 84:7 <b>180 (1)</b> 20:24 <b>180-meter (1)</b> 20:3 <b>19 (1)</b> 31:20 <b>1985 (1)</b> 11:7 <b>1992 (1)</b> 11:8 <b>1st (1)</b> 74:15				
<b>2</b>				
<b>2.09 (1)</b> 25:22 <b>2.26 (1)</b> 26:10				
<b>X</b>				
<b>XLPE (1)</b> 54:23				
<b>Y</b>				
<b>year (30)</b> 17:22;18:23;19:22; 20:5,15,20;22:9,15, 18;24:22;25:3;26:5,7; 27:4;28:1,4,5;33:18, 19;34:20;39:11; 59:13;65:16;74:20, 21;75:5;76:24;85:24; 89:16,18 <b>years (13)</b> 20:8;24:23;25:20; 33:14,22;35:15; 36:18;46:1;82:24; 83:13,17;84:7;89:3 <b>years' (3)</b>				

20,000 (1) 52:7				
20/15 (1) 29:10	5			
2006 (3) 50:10;87:22;89:22	5 (2) 24:3,5			
2020 (5) 20:5;25:19;26:11; 33:15,19	50 (1) 43:19 539 (4) 18:15;19:10,13,18			
2021-07-005 (2) 3:14;8:7	6			
2022 (4) 3:10,18;4:16;8:9	6 (1) 60:22			
2023 (1) 83:7	6:13 (1)			
2024 (3) 23:9;31:22;83:9	3:1 60 (6) 47:15;49:12;52:2, 19;55:10,17			
211,000 (1) 22:19	60-hertz (1) 47:21			
21st (1) 81:15				
22 (1) 3:10	7			
23 (3) 29:20,22;33:22	704 (1) 42:4			
24 (1) 33:22	75 (1) 43:19			
25 (7) 24:22;33:14;80:8, 13;81:3,5,16	8			
250 (1) 44:2	8:28 (1) 92:23			
25-year (1) 36:5	82 (3) 41:5,17;42:13			
27th (1) 7:16	854,000 (1) 34:10			
3	9			
3 (1) 21:4	9 (1) 4:16			
3.06 (1) 22:17				
30 (1) 36:18				
30-odd (1) 29:24				
340,000 (1) 34:20				
342,000 (1) 22:19				
350 (1) 44:2				
4				
400 (1) 49:22				
46-23-1 (1) 71:6				
49 (1) 60:5				