

# TEXT\_SizewellC\_ISH7\_Part2\_Session1\_16072021

Fri, 7/16 12:15PM • 1:43:09

00:02

Good morning, everybody. And welcome back to this the second day of issue specific hearing number seven, on biodiversity.

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Most of the parties were introduced yesterday, and I'm not going to go through the introductions, or the thorough opening remarks, which we make at the beginning of our is H is now as we've all started, and we're underway

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for those parties who are here today, but weren't here yesterday or who weren't introduced, that's fine. If you weren't here, then then for whatever and for whatever reason, please, when you first speak, could you just give your name and say, if you're representing an organisation, that you're representing an organisation and its name by here in your own

00:52

in your own personal capacity, then assert as well. Now when we adjourned yesterday evening, I said that we would start with the applicants reply to submissions, which were made at the end of yesterday on the size of our link road. And that is what we will do in one moment.

01:10

Just to be clear, I also decided yesterday that a number of matters would be dealt with, in writing and served everybody is

01:19

under no misapprehension as to which those are they are wet woodland, which was item two, B, three, and four over three and protected species, which is item two, II and designated sides, which is item two F.

01:38

We will when we restart the agenda after the applicants, submissions on the size of our link road, begin with item three a site hit that is clear to everybody.

01:58

Very good.

02:00

Mr. Collins, I see your hand is up.

02:06

Yes, just to say I think you're also decided that duties under Section 1441 of the natural environment and rural communities act 2006 was also defer to written you are ahead of me, Miss Collins. And indeed I was about to say that if there is time, I'm going to invite you to meet your submissions in relation to those duties when we get to the end, and that is what I would like to hear. I hope that we can do that. Okay, I will be here ready and waiting. Very good. Thank you.

02:38

Writing report, that's fine.

02:42

There's a list of documents, which are likely to be helpful or I like to refer to that was included in a revised agenda, which was posted on the national infrastructure website early yesterday morning. If you haven't looked at that, in preparation for today, I would urge you to do so. And not on the list because it's fairly obvious and expect that people have it to hand is the marine ecology chapter 22 of the environmental statement, I am using the version with the numbered headings, which is as 035.

03:21

slight change to the order of things in the agenda, we have an item item three see about the securing mechanisms. And I think it makes more sense to deal with that at the end of the marine ecology topic. So the others will all move up one place.

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Now about timings today, I have been told by the case team that

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the marine management organisation would like to leave at three o'clock this afternoon. It is Friday, we have all had a but how to say a full thoughts night of hearings. And I'm sure people would like to get away early. I want to deal with things thoroughly, however, and I hope that time pressures don't get in the way of good consideration and submissions as ever, to the point in six things. submissions, please but what I would suggest is that when we get to lunchtime, we therefore just take half an hour for lunch and reconvene and get on and see if we can finish the timetable early and possible for the MMA to get away at three. Are there any questions about that?

04:51

Very good.

04:53

Well, in that case, I'm going to proceed straight to item three A, which is about habitats regulations.

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assessments European and other designated sites. And it was to Phil bot.

05:05

Good morning, sir. I understand before you deal with that.

05:10

Yes. And so I recall so that there were two matters left over. The first was Mr. Lewis's reply in relation to the size well, Link road. So item two, G. And he also indicated yesterday that you would like to hear from me on article 53 and 54. That's the question that was left over. And it I propose, therefore, to ask Mr. Lewis to go first. And then if it's convenient to you, I will deal briefly with those two articles immediately thereafter. And then one can move on to the other items with Mr. Tremens. Thank you.

05:49

So I'll pass over to Mr. Lewis to summarise the response on the mass we heard yesterday.

05:58

Good morning, Mr. Lewis. Hello again, sir. Just to go a few through a few things. number of points made by the Environment Agency yesterday in relation to the watercourses on the size of a link road, which I'll just go through briefly.

06:15

There are seven watercourses crossed by the root on the size of a link road. These vary in width between 80 centimetres and 1.5 metres. So they are very small watercourses. They are ephemeral in nature. When I did my first site visit in 2019, only two of them held water. I just thought that would be useful context. I don't know if the panel had the opportunity to visit during the site inspection, but they are very small water courses. And of those seven water courses that we're going to be traversing by the size of link crows for six of them. We'll be using portal culverts and those portal culverts effectively retain the beds of the river totally untouched, retain the banks of the river. And also we're maximising the height to soffit given the given the vertical alignment to the road. We're making sure there's plenty of space underneath the culvert. And what we think that does that will

07:12

avoid fragmentation if there happened to be any water, voles or otters. Now, it's not our not our position that those species are present. And when we did our phase one survey of the root, it was determined that no surveys of those those species would be warranted based on the on the on the habitat appraisal at the time.

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Just a little bit more on the water causes if I may, the total length of new culverts that we're putting in along the size of a link road is about 205 metres when you sum up across the seven crossings.

07:49

Now, we have already provided two kilometres of new ditches at the old Hearst farms site, which itself substantially exceeds the compensation requirement for 670 metres of loss from the size well marshes so just to put it in context of the project wide level we delivered two kilometres view ditches. We only needed to mitigate for the loss of 670 metres from the size well marshes and there's 205 additional metres of additional culverts on the sides will encroach. So just a bit of context to ditch loss at the project wide level.

08:28

in respect of all that we are working very closely with the Environment Agency. I think we've got meetings in the next couple of weeks to optimise the the areas of ditch under stream within the order limits to the best of our ability to increase the value of those for biodiversity. So we are still continuing to work with Environment Agency on enhancing those retained watercourses. And now turning to the matters raised by

08:58

the other respondents it's hang on just remind me what what I say.

09:04

What did you say was the maximum minimum size of the watercourses?

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80 centimetres to 1.5 metres in width at bed level. They vary depending on the bank profiles at the top of the bank but at the bed level between 80 centimetres and 1.2 metres. Okay, what is the portal culvert?

09:26

a portal culverts it's essentially a three sided culvert box culverts are four sided concrete boxes effectively with a portal culvert. You've got the opportunity it's almost like a little mini bridge you retain the bed of the river. You maintain the banks if you span the span the watercourse appropriately Oh I see. Yes. I mean it means that the I've got it I've seen Yeah, yeah. Brilliant. Okay. Thank you, sir.

09:52

Okay, in relation to surveys, a number of respondents from yesterday, suggested that we haven't under

10:00

Taken sufficient surveys, I think it was one of Mr. Langtons points.

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All that surveys are ongoing and being undertaken late. And I think that was one of Mr. Mr. Boyce ons, points on behalf of Mr. Grant,

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just to make a couple of points if this would be helpful to the panel.

10:18

Most of the surveys we're undertaking in 2021 are to provide additional resolution for protected species licences. So they're not things that we depend on the environmental impact assessment, I think that's really important. So you'll be seeing later in the SAR submissions, I think that a D six and D seven number of reports in relation to great crested newts and batteries, but those, those aren't things that go to the support the environmental statement baseline, those are simply us informing you of the results of surveys this year, which are to inform the protected species licences. So I just thought that would be important to make. And they don't as I say, they don't change the conclusions in relation to the environmental statement, I think we do make normally make that point at the very end of those reports. So so that I hope that's helpful to the panel.

11:09

Just to very briefly touch on the main development site. In my opinion, it's probably one of the best studied development sites in the country from the perspective of ecology. The baseline survey started in 2012. And as well as the surveys we've undertaken ourselves, they had surveyed on annual basis across the state by South Wildlife Trust in relation to birds and vegetation in particular, and we've got access to all that information. And we've used that in the environmental statements. So there's a huge volume of information in relation to the main development site,

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I would say that access has been a problem in a couple of locations. And and we did mention this yesterday in relation to the woods in the farnum Hall area. In relation to the size where link row, there was one block of land that we weren't able to access in 2019, which is why a standalone suite of surveys was undertaken in 2020. And we did report in on that at a later date. And I'll give you provide the reference of that standalone Report.

12:12

I'm just returning very briefly to the point about phase one surveys. These are the mechanisms by which we determine the need for additional species face surveys species specific survey. So when we undertook the phase one survey of the river old, for example, on the to village bypass, that phase one survey defined the need for waterfowl surveys or surveys and aquatic invertebrates, or the ditches. So we did undertake those protected species surveys in the river roll because, you know, that was the output from the phase one survey. But of course, the water courses on the size were link road are very, very different. They're they're very much smaller. They're set in an arable landscape and they're not suitable for, for resident populations of water, voles or otters. So that's an important context, I think, in comparison to the comments made yesterday by them don't quite follow the point you're making.

13:12

Essentially, phase one surveys is a scoping survey to define the need for additional protected species surveys. The point that the contrast with the river river old was at the river old is a nice semi natural environment with lots of nice ditches. And that tells you you've got to survey for all what the otter said, What evolves otters and aquatic invertebrates, but it's a very different context at the size where link road sizes using the point to rebut the point you made today. Okay, thank you. Is that helpful? Yeah, that's helpful. Yeah. Okay.

13:45

So I think that's probably enough on surveys. And and just to Sorry, just to say that where we have where we thought it would be helpful to the panel in relation to additional surveys, were obviously promising to do those. And, you know, yesterday I commissioned a Dormouse survey those Woodlands at Farnham Hall, which you kindly agreed to support me with undertaking those surveys. I supported the getting a version

14:07

for doing it.

14:09

And obviously an RD for submission on the table is bypassed. We did volunteer to undertake additional bat surveys and we were reporting on those as well. So we are doing additional surveys where we think it's necessary, and we don't think it's necessary in relation to the size will increase.

14:25

Just very briefly and I will be brief on these matters. In relation to skylarks, Mr. boysson said that then the size will link road will lead to the loss of skylarks in the arable area, what I would say across on a project wide basis, the arable areas on the main development site that we've transferred to grassland have got some of the highest densities of skylarks locally. I think we've got and I will check the data on this. I think we've got 18 pairs of skylarks, this year on the studio field complex which is one of the reptile

14:59

area

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Is that we visited on the company on the company site inspection. So, on a project wide level, we are doing a huge amount of skylarks, and there's no doubt that the project will lead to an increase in the skylight population.

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In relation to break crested newts Mr. Boyce on always also said that there will be a loss of breeding ponds and that we weren't adequately mitigating. for that. I'm just to confirm to the panel we're losing to great crusty new breeding ponds and to which will reinstate at the end of construction of the size will link road we are creating eight new ponds for great crested newts along the route two of the sides will link road and the further six ponds for biodiversity net gain and all of those ponds are shown on our appropriate

15:48

plans and in the old lamp that you will be receiving shortly.

15:54

Mr. boysson mentioned district level licencing, which is a new approach to mitigating the effects on great crested newts.

16:04

Just to confirm to the panel in parallel with our protected species licence in relation to great crested newts, we will also be submitting a district level licencing inquiry to natural England. So we will be doing a twin track approach on that. And that inappropriate point we'll make a decision on which licencing approach we undertake and restoration to great crested newts will we get the feedback from where they got to before the end of the examination? So we'll provide that to examination give you an update on what on what to go with that. And when certainly when we make a decision on which of those tracks we take, we will advise that advisory examination. I guess that will also naturally will be here you come in in the question of letters of no impediment. Yeah, exactly. That will come come to that point as well. Thank you.

16:58

In relation to the point on bats, Mr. Tate mentioned yesterday, the potential for a combined effect between the size of a link crowd and the main development site. We obviously know that the main development site protected species matters when in the protected species matters are going to be dealt with in written questions. And we will be more than happy to respond to written questions in regard to the potential for cumulative effects between the sides will link right in the main development site in relation to bats. And we'll we'll we'll do something on that if if you want us to.

17:34

And just one final point, I think it was Edwina Galloway mentioned her owns surveys. I haven't actually picked those up yet. But we will review the surveys that Edwina Galloway made reference to I will dig out the reference and suggest that we respond at appropriate deadline probably D six in relation to those surveys once we've had a chance to review them. If that's helpful. Yes. Now in relation to the bats and as the alternate, Mr. Tate, and while the council's clearly got some

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substantial submissions they want to make to us about that.

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I wonder if procedurally it would be

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helpful. I guess I put this up for two years a suggestion. I think I think it's a good one. If, if you and he suffered could get together

18:31

so that they can make their points to you. You can you can hear them. And you can produce a another statement of common ground in relation to that point. I think that would be helpful. I better ask Mr. Tate was take you there. Join join the discussion and tell me if you would finally say yes, if you would find

that helpful. We'll obviously follow that course we can put are the comments we would have made as it were in our

19:02

submission for the end of next week. So we'll provide it in writing there but that in parallel, we are more than happy to take your suggestion. I'm just thinking it would it was speed things out rather than having that you say it, they reply to you comment, they reply. If you bring that all together in one bite, and I yes, I do want to see what you have to say in your submissions next week. But if in parallel or immediately after that you can get together and as we're truncate the ding dong that will be really, really helpful. That's that's understood. Thank you, sir. Thank you. We'll support that obviously, sir. Oh, thank you, Mr. Lewis, carry on.

19:43

I think that is it now from from me. And so I'll hand back to Mr. Philpott. Thank you very much. Thank you.

19:53

Thank you, sir. Very good. Can I say before you start Mr. Galloway to see if you've got your hand up. I will come back to you after

20:00

Mr. Robot, I've heard Mr. Phillpotts see what you want to say.

20:05

Thank you, sir. So, just briefly, for those who may or may have missed it, the query that you raised on the start of issues specific hearing one, related to articles 53 and 54 of the draft order, and the relationship between the offences that they create, and sheduled five, paragraph 32 B of the Planning Act, which provides the creation of offences

20:38

within subparagraph, two, by authors to be in connection with, amongst other things, construction improvement, maintenance or management of a harbour is effectively an example of things that can be included within an order. And as I understand the query, it was the extent to which the offences created and articles 53 and 54 Do or do not fall within that exception. Yeah. And so dealing with article 53, first, this is related essentially to the obstruction of works. And the intention behind it is it it would only relate to those words, which are physically part of the harbour has to be created under the decio. But as drafted in revision four, that's wrapped to zero 15, we can see that it is, I don't have to interrupt you because I have an unavoidable.

21:35

unavoidable intervention. So I'll post my submissions.

21:48



Thank you, Mr. Phil plot, just to say I think Mr. Brock will only be a minute, I'm reasonably confident of that. So if we can just wait for his return.

22:19

Thank you for your patience, my unavoidable information intervention is now dealt with.

22:25

Grateful sir. So as I was saying, in relation to Article 53, as drafted at present, and having had our attention helpfully drawn to it by your question on day one, we think that it's currently to widen its scope, because it embraces both What are referred to as the marine works which obviously defined term, but also the authorised development, which is also a defined term. And so in the next version, that's going to be pared back, so that it relates only to those marine works, which would form part of the operational harbour. So, that approach will bring it into line with precedent, for example, the Hinkley Point C development consent order, Article 61 of which was in similar terms and applied to the temporary jetty that form part of that proposal, and as you may recall, so that part of the Hinkley Point decio reflected a harbour empowerment order, which had been made at an earlier stage in anticipation of the grant and the subsequent DCA, so it had gone through the harbour impairment order process. So that's article 53, Article 54. As currently drafted, we believe that it does sit within the scope of Article paragraph 30 to be the offence that it creates, it is in connection with the management of the harbour. So the the way that it works is that it relates to things which are done, which obstruct in one way or another, the activities of an officer of the harbour authority or another person act in pursuance of the order or have any enactment relation to the harbour limits, in other words, the other enactments or the other harbour enactments, various parts of which are incorporated into the order by reference. And so, it the offences are either obstruction of an officer

24:32

at MCs have the order, failing to comply with the requirement that such an officer probably makes or failing to give that officer information or produce any document that is required for the purpose of performance of their functions. So all of those relate to the management of the harbour, and steps that would

24:54

be taken which would interfere with that, and thus would legitimately be created as offences.

25:00

Yeah 54 is peppered with the word harbour which is comforting. perfectly. Thank you for that. And we will I won't I want to do to get their heads up in here here where it was, that's where I expected you more or less to, to get to I'll have another look of deck when I see your written submissions. But just one point, but any feedback quickly to you and then we'll

25:22

get on

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53 talks about marine works. And indeed, and I think you need to confine it to heart to the harbour, don't you? That that's well so the way I outlined the matter earlier. And I apologise if I didn't make this clear again. This is to confine it to those marine works which properly to be regarded as part of the harbour so for example, the 10 million

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Yeah.

25:54

Those those entry points I wanted to make. Thank you very much. Do you know I don't I've done all the things I said I do and

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hereafter I'm going to hand over to Mr. tremens again. Good. Enjoy your rest.

26:12

Very good. Now then.

26:14

Mrs. Galloway.

26:17

I've got you there. Good morning, Edwina Galloway on behalf of Cal Cellcom, Carleton parish Council. A couple of brief points, as you know, the link road area. I know I'm going to stop you there, Mrs. Galloway. Because if your submissions are about the link road, we dealt with that yesterday, we had time for all those things. And the applicant was responding to the points which had which had been made.

26:41

Can I just briefly say the last week it was said they will respond to my submission by deadline five. Today it was deadline six, will it be both or one or the other?

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Right. Yes, that's a good question.

26:58

Mr. Philip, can you help us you come back and D five or D six? My understanding, sir, is that in relation to the

27:06

submissions that have been made? It would be deadline five. But you'll recall a moment ago Mr. Lewis specifically dealt with the question of the surveys. And in order to look at the surveys and respond to those matters raised that that is deadline six, because obviously the time available between now and when things have to be finalised, the deadline five wouldn't allow that to be done properly. So that there

will be a response that deadline five, but it will be supplemented by response to the surveys a deadline six. And just looking around to see if anyone in the room is correcting me on my understanding that that's I'm getting nods that that's the position. Okay. Does that help us the other way? Yes, that does match as quickly as they were done by experts. They weren't done by me. I wouldn't be an amateur.

27:54

Very good. And can I add that? We were happy to receive any submissions, which you would have made orally has not stopped you if you'd like to make those in writing. We'll be happy to receive those at the other night that they said. Thank you. Mr. Bedford. You have your hand.

28:11

Thank you, Mr. Philip.

28:13

Thank you. So Michael Bedford, Suffolk County Council, this is purely as a courtesy. Now we have completed I think item to

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the county council really only has a watching brief in relation to marine ecological matters. So I will be departing from the session. But Mr. Isaac Nunn a senior planning officer I think attended it is h six will be participating throughout the rest of today's session. Okay, well, thank you very much, because I can't get your team to thank you at the end of today. Thank you for your participation, not only yesterday, but also throughout the past fortnight of hearings, and there's not as my thanks. There's thanks on behalf of the examining authority. We're very proud and generous.

28:58

We'll see you again i'm sure.

29:02

Very good. I think we can now

29:06

start with the marine topics of today and Item A habitats regulation assessments, European and other designated sites. And my aim is to understand the differences between the parties on the applicants conclusion of no adverse effects on integrity, which are presented in the shadow, HRA report and the addendums. For what the matters which aren't listed there, as a morning's determines won't accept

29:41

the agenda didn't

29:44

have that earlier recital about understand the differences between you between you but I hope that that was under understood in the context and that you're able to address that.

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I'm going to start How about with natural England

30:00

Mr. Hains? I think it is.

30:04

Yep. Good morning again.

30:07

Good morning again, Mr. Haines. Thank you very much. So on this question then of the differences between between the parties, please only applicants conclusion and no adverse integrity in relation starting with. Let's start with marine mammals, please. And John, we'll just deal with that. I'll get over it. And then we'll move on to fish and birds and so on and so forth.

30:27

Okay, no problem. I just thought I'd say at this point for your awareness, I was obviously here yesterday. But today, I've also got with me, Allison had to bring in to be West who a specialist and Senior Specialist in fish ecology, and also Richard Berridge, who's a senior specialist in marine pathology.

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They won't be speaking on this item, but they will be later on and I just thought, Yeah, well, you know, at this point, thank you. I think I've got them as well on the on the list. But it's good to be reminded I'm grateful to my problem. In terms of marine mammals, item. For position on this is outlined in issue 717 and 27 of our written representations. But

31:06

to summarise in terms of noise impacts, we're satisfied with the noise modelling and the proposed mitigation in this regard, as outlined in the Marine Mammal monitoring plan. In our written representations, we stated that we still needed to see the southern North Sea sites integrity plan. And before we can offer a final conclusion on adverse effects on integrity, in terms of the Southern North Sea SAIC, and the applicant has helpfully signposted us to this document. And I believe it wasn't within the examination library, but we missed it, unfortunately. And our marine mammal specialist documents in

31:42

Yes, I'm marine mammal specialist is currently reviewing that. So we should be in a position shortly to provider and revise view on adverse effects on integrity.

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And then in terms of the collision risk element on marine mammals, we've reviewed the further information provided in response to a written reps from the applicant. And we have no further concerns in terms of collision risk between project infrastructure marine mammals

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possible to say which marine mammals you're you're apart on?

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Or do I just need to assume the tools?

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I need to check back and confirm in our written representations.

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That's the I believe it's harbour porpoise.

32:26

Okay, if you don't, before we finished today, if you could let me know if you're able to. Yeah, that would that would be helpful. So I'm recording this just confirmed is harbour porpoise. Okay.

32:40

And grey sails, sorry, Android seals.

32:48

But we're okay on collision risk.

32:54

Thank you. That's very concise. May I now turn to the marine management organisation, please?

33:04

Hello.

33:07

louella. Do you want to introduce us and then I can take over? Yeah, thank you, Ellen. Good morning, Mr. Williamson. here from the ring management organisation. I want to introduce us briefly, I'm the case manager working on the side policy application. My colleague, Alan McKenzie is here as the case officer. Just before we delve into this topic, and my apologies for disrupting the flow slightly, I just wanted to make a quick statement regarding some concerns that have been brought to my attention. So I just wanted to take a moment to confirm as a matter for the public record that the MMO did inform the pelicans patriots case team that we would not be able to attend hearings, six, or either part of seven on the 13th of July 2021. This is due to our capacity issues that we're facing at present and we have communicated this externally as well previously, the website has to attend today. However, following that concerns that have been raised.

33:59

And we're concerned the message not been communicated clearly enough of following a call for ourselves to speak yesterday, so apologies there that we weren't able to reciprocate when you called

for us. Just to quickly confirm MMO has jurisdiction below mean high water springs and would not routinely attend hearings learning to trust your matters. We'd also like to reiterate that we are fully committed to engaging in this examination as an interested party. And we will continue to provide our written representations at each deadline until such time as the examination comes to a close. Our written out nations are available to the public by the pins website. And we'd like to further outline of course, as you mentioned this morning examiner that the MMO will have to leave the hearing at three today. Apologies for having to leave early but we will be reviewing the transcript should have continued past then and will provide our full comments at deadline five as per the written process. Sorry, that was bit lengthy but thank you for your time for us to to announce that this morning. And I will go back to Ellen to continue the flow the examination and respond to the marine mammal section of HRA. Thank you just misspoke

35:00

Just don't make it make it clear. The only reason that I, that you were called on yesterday was because I was doing the roll call and I wanted to I wanted to see who was are appreciated being done in the case management conference. It's not always possible to, to put put the two together. And we specifically, I guess this is for the benefit of other people that we specifically stated in our detailed agenda that really, college was not before 10am On Friday, the 16th of July. I said In fact, this morning, when I was opening, that there were some people who were perfectly proper reasons we're not we're not present present yesterday. So that's that's fine and understood. Thank you, Grace, grateful that clarity from you. Thank you. Okay.

35:47

Let's say let's get as good as the question was so. So differences between you and the Africans about the shadow, HRA report and your conclusions? Well, their conclusions on adverse effects and integrity, starting with marine mammals, please. Hello, Ellen McKenzie, marine management organisation. And so ultimately, we do defer to natural in England's view on the conclusions of the HRA. And but so far from from our review, we do think that the assessments are robust, we do agree with them, and regarding the project alone, but we're still not able to conclude there'll be no adverse effect with the from the project in combination with other plans and projects, because we're still reviewing the so the North Sea SSC site integrity plan, and we're in the same position as natural England. And we haven't yet finished our review of that report, were aware it is on the planning Inspectorate website. So we do need to review that before we can agree to that conclusion. And we do have a few small comments on the shadow HRA addendum that was submitted. And for the dcl changes in relation to the underwater noise assessment. So there were a few points that we would like clarified, and we'd like the applicant to confirm if the underwater noise model and the input parameters are the same or any different to what was used for the original shadow HRA. We couldn't see that detailed in the agenda. I would also like the applicant to clarify if and the mechanical cutting activities that might be required during the decommissioning of the temporary BLS will generate any potential elevated levels of underwater noise that could affect marine foreigner. So that's marine mammals and fish. And because I believe that they've got an assessment of cutting activities, if they were to use vibro, piling to remove the the temporary BLF piles, but they haven't got an assessment if the vibro piling wasn't to work, and they had to go down and mechanically cut those piles.

37:59

And would also like the commutative effects assessment relating to the combined piling scenario to be clarified. And we would like some more evidence to support the statement that the combined effects of piling up the temporary BLF and the permanent BLF at the same time, and or less than the worst case scenarios that were provided and in the initial HRA for just the individual piling alone.

38:28

Okay, thank you very much. That's helpful.

38:34

Are there any other interested parties who would like to make clear their

38:41

differences on this no adverse effect on Tegrity? point?

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No, okay. Let me go that case to the applicant.

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Hey, Australians, Mr. Wilkinson has put his hand up. Yes. Thank you. Mr. Brock.

38:59

Can I ask you for clarification? Is he talking specifically about agenda item? 381? Yes, we are. Okay. Then I'll come in later. Thank you, much of life. Thank you, Mr. Chairman.

39:16

Yes, thank you. That's that's very helpful clarification from natural England and the MMO. So I think there are two there are two issues. One is we'll need to respond to their comments on the southern North Sea site integrity plan, when we have those. Secondly, the noise assessment will be revised and submitted at deadline five, it will deal with the MMO points. In particular the point about the the cutting of piles during the decommissioning of the temporary BLF. So we hope that some that that revision D five will pick up those points. That's on noise. Yep. Okay.

39:58

Thank you very much.

40:03

With the the next of these differences issues is fish and migratory fish. I've got an item on

40:13

the cooling water system, which relates to fish as well. And I think we'll go through an awful lot of

40:21

fish related matters then and so at the end of that, I will come back and I got it in my notes. Mr. trogons, you might want to make sure that I do.

40:32

I will come back and say let's now address the differences in relation to HRA matters at the end of that.

40:40

Mr. Wilkinson? Do you want to come in on fish? Are you on birds?

40:48

Mr. brocket? Basically, I'd like to announce that we have our expert with us today with to whom are we referring? Dr. Peter Henderson, who will be addressing three A to B and E in the agenda. So when you see his hand up, could you please he's speaking for together against Sizemore See?

41:12

Understand. So his name is Dr. Peter Henderson.

41:17

Okay, I will make a note of that. Thank you who's written representation for the record? Mr. Brock is rep 2481 h

41:33

wait one Ah, okay. Thank you. Thank you so much.

41:42

Very good. Right. Well get back in that case, and now look at birds disturbance displacement of the red throated diver

41:51

in the outer Thames Estuary due to vessel movements and traffic. I go through the same order naturally on first reimagined organisation anybody else and then back to you, Mr. treaments. Thank you. So Mr. Haines.

42:07

hydrocone Haynes, natural England. So our full position on this is outlined in issue 27 of our written representations. Everybody's 27. Yeah, there's quite a bit. Yeah, so that summarises natural England, consider that insufficient evidence has been presented to make a conclusion of adverse effects on integrity for nonbreeding. Red throated diver, the outer Thames Estuary SPI.

42:30

And this is a result of disturbance from displacement by vessel traffic. And these concerns relate to the indicative vessel route corridor and vessel management plan, which we consider is required and which we welcome the applicant has now agreed to work with us on.



42:45

And I have my colleague, Richard Berridge, as I mentioned earlier as a senior specialist and renewal authority to hand. So, if you'd like to hear any further explanation on those concerns, we have any other detailed questions, then. Yes, I can direct those to him. I think I would like a bit more expansion of what the problem is. Okay.

43:09

I Richard beverage I'm a senior marine on follow this natural England.

43:14

Java specific question, or would you like me to

43:18

know I just like you to be more specific about what the issue is, I can read that it's about the middle aged diver, and it's about the vessel route, so does tell you what the problem is. So essentially, the problem is red freighter diver highly sensitive to anthropogenic disturbance, including vessel traffic, there's a lot of good evidence for that, as terms as tspa already has issues with red throated diver displacement in the winter. This is mainly from offshore wind farm, which has obviously, a lot of vessel traffic associated with it. But also, the areas of offshore wind farms and cells displace divers, so it's not just vessel traffic, it's also structures in the water that can displace these birds. So we haven't been able to rule out

44:06

effects on site integrity from existing offshore wind farms. So any additional plans and projects

44:15

really should be assessing an additional effect on the site integrity, as well as only varying

44:23

I know that there was a suggestion that some vessel traffic might be able to come from elsewhere. And I would just highlight the fact that it would be highly preferable not to put any extra vessel traffic through the Thames Estuary in the winter if it can be avoided.

44:39

But as Jack said, I was happy to see that the applicant accepted working with us on a vessel management plan. So as far as I'm concerned,

44:49

if we could agree a suitable vessel management plan with some mitigation built into it, I would be perfectly happy with that. Namely, that would involve utilising existing shipping

45:00

routes, of which there are plenty within the Thames Estuary, including flows offshore wind farms. So simply utilising pre existing corridors where ships already pass through, and therefore the birds aren't present in those areas generally.

45:16

But the overall issue initially was around the fact that there was really no analysis of how the vessel traffic might impact these birds, simply because no, we have very good data on where the birds are in the site. And none of that was taken into account in relation to the vessel corridor that was proposed.

45:35

Does that help at all? On? Yes, questions? That will do very nicely. Thank you.

45:49

So, reminders organisation, Miss McKenzie, did you want to add anything that I understand the differences are between you and them? Yeah, Im Mackenzie moon management organisation. We agree with natural England's view that it can't be concluded yet that there'll be no adverse effect on on site integrity, and in relation to the nonbreeding read through a diverse because of disturbance and displacement from vessels. So we support that some type of best practice protocol plan should be produced, which outlines mitigation that will be used to minimise any vessel disturbance on that species. And obviously, the applicant has agreed to engage with natural England to produce that plan. So we'll look forward to reviewing that plan when it when it does get submitted. Do I this is a general question. Sure. Do I take it that actually you tuck in behind natural England on everything in relation to these matters? When it comes to HRA designated sites, natural Inca dar the strategy niche conservation body for the marine area as well. So when it comes to HR rates, normal practice that we defer to their view.

47:06

Okay, thank you. I do have a note on how this will affect the DML low. And I mean, the DML is really our our area. And so there will need to be a DML condition that states that a best practice protocol to minimise disturbance to the rest read sort of diverse should be submitted to the MMO to be agreed prior to works commencing. And once that's submitted, we would then consult with any relevant stakeholders before approving the plan.

47:42

Right. Okay, well, it might be the same as what the applicant is missing very shortly.

47:48

Yeah, yeah. At the moment, there's no DML condition for this plant. So and that will be something we'd like to see added in. Okay. Many things. Thank you.

47:59

Are there any other interesting places you want to contribute with solid unless you on your hands up? Welcome. Thank you. So Rosie Southern on behalf of the RSPB and Suffolk Wildlife Trust, just on that that final helpful point from from the MMO.

48:15

There are some some some useful existing examples from offshore wind farms to do with best practice protocol for minimising red throated diver disturbance. And if helpful, we can we can provide those and do a short summary and obviously work on look forward to working with the MMO and natural England and the applicant on that. Again, I'd quite like to defer to miss Miller to cover some some additional points, then raised by natural England, thank you. So what I have for you go just if you would

48:48

put those other examples in to feed them into the discussions which are taking place between natural England and the and the applicant, I think that'd be the most helpful way to do it to deal with it.

49:04

It's nothing to stop you putting in if you want to buy or put references into them as part of your d fi submissions after this. That would probably help us if we want to look them up ourselves in the meantime. Absolutely. So and natural England is very aware of and we're has worked on one of them to do with the East Anglia one. So at But absolutely, I will try and limit extra paper and pieces into discussions. Originally, actually extra megabits. Thank you. Thank you can give us Miller. Hello, Mr. Miller. Hello, thank you. And I just like to add a few points and summarise our concerns if I may. Yeah. So in general, we support the comments of natural England that adverse effects on integrity of the outer terms. SBA can't be ruled out at this stage. I'd just like to draw attention to the supplementary advice on conservation objectives, which note the vulnerability of red throated diver to disturbance by

50:00

boats and the strong stress response exhibited by birds in response to such disturbance for marine activity and construction

50:07

on the monitoring and mitigation, we feel that it's not clear that impacts can be monitored to be mitigated at this stage, but we welcome the commitment to develop a vessel management plan which was stated in the comments on natural England's written representations Rep. 3042. We think that should be incorporated into a wider marine monitoring and mitigation plan, which should include the confirmed vessel corridor, noting that only an indicative corridor has been provided so far in rep 4004. There should also include a calculation of uplift in vessel activity commitments regarding best practice, details of vessel activity by season and details of how any restrictions on activity that might be required could be managed and enforced. Just on monitoring. I'd also like to add that limited monitoring has been provided for in the temp so far in table 2.2, which is in rep 1016. We think that's unlikely to be effective because it relies on both based observations.

51:12

And there's a reference Mendel at our 2019, which we provided with our written representations, which suggests birds flush from boats up to five kilometres. The applicant quotes a couple of references Bella Boma I 2006 and flies back I 2019. Stating an escape distance of between 414 100 metres. In either case, birds are likely to be flushed at to greater distance to be observed from boats or may have

avoided the area entirely due to boat presence. So we consider that boat based surveys mean that birds might not be detected. Erwin at Allen 2019, who surveyed the outer Thames Estuary did state in their report that the known bias results from Red throated divers avoiding boats leading to under recording when using those sorts of survey methods.

52:00

I'd also just like what, what what do you do is do aerial surveys are the recommended technique.

52:07

So, yes, yes, you can provide further detail on that in our written submission, if that would be helpful.

52:16

Yes, thank you. Okay, thanks. I'd also just like to add a couple of points on in combination effects and the combined marine impacts in relation to red throated diver. So the construction of sizewell c could coincide with construction and operation of several offshore wind farms in the southern North Sea. And we think that in combination disturbance and displacement of red throated diver is likely. We mentioned in our written representations, paragraphs 3.6082 3.609 that we think there is a need to assess the sum total of disturbance impacts affecting red throated divers at the outer turns SBA in the same way as for an offshore wind farm, as I say that detail is in our written reps Rep. 2506. Just Finally, as an additional point, going back to the size well project, the combined marine impacts are a significant concern to us. So that's the effects on birds and their prey from dredging, piling and vessel movements, impingement and entrainment of fish. The thermal broma form and hydrazine plumes, increased organic matter from the discharge of dead and dying fish, suspended sediment concentrations, and the resulting total displacement of marine birds we don't think has been fully considered. So again, those impacts could be significant, particularly for birds for retro Diver of the outer Thames SPI, but also turns of the minsmere Walberswick and old or estrie sbas. One of the things we're particularly concerned about is whether those impacts haven't been considered significant alone, we don't think it's been properly considered that they could still contribute to a total project effect. And again, we're concerned that it's not clear that those impacts could be adequately mitigated. Thank you. Thank you, you helpfully referred me to a lot of documentation, including paragraph numbers, which is driven tremendously helpful, it won't surprise you to learn I wasn't able to get all of them down. So when you put your your post hearing submission in please make sure that they all are in there and a brief reference to why called Thank you much obliged to

54:29

write need body also, I think is saying that they want to contribute on this point. So Mr. Truman's and back with you. Yes. Thank you, sir. So the the issue with restaurateur divers essentially some deliveries to the temporary VLF during the winter months. The assessment of that for your note is in the shadow HRA report addendum as 173

55:00

The suggestion of a vessel management plan is helpful. The applicant is happy to work with natural England and the MMO on that, and also to take on board comments on best practice from RSPB and

Suffolk Wildlife Trust will plainly need to consider how that is going to be secured. We'll take that away and consider that.

55:29

I'm mindful in terms of your your Reese report, you're going to need to have that in good time. So that means in practice deadlines six at the latest, I think so. We were very mindful of that. The point from Suffolk Wildlife Trust about in combination assessment. I'm confident that has been dealt with in the various assessments. However, we will take that away and do a short note just drawing together how all of the in combination matters have been addressed. So that you can see that clearly and satisfy yourself that the the in project and in combination effects on the marine side have been properly picked up. And helpful because it's almost, I'm sure you're you're confident about but it's clear that the RSPB in Swat are not so yeah, yeah.

56:31

So we need to demonstrate that so so we'll take that away and do that. Thank you very much. Thank you.

56:37

So the last point I've got before we get to cooling waters is birds collision risk. Now we had that yesterday in relation to pylons and cables. And I think I may have simply pushed in into the marine side out of an abundance of caution. And perhaps you can help me, Mr. trogons, which would save me having to go around everybody else.

57:03

Is there are there collision risk differences in relation to marine?

57:09

No, sir. We don't believe that. It's plainly not akin to a an offshore wind farm. We don't believe there is a collision risk in the Marines sphere. Unless any interested party comes up suggests there is we can't see it. Are they the only above surface structures you've got? Are the other two beach learning facilities? Yes. And whatever boats Come come to see them. Yes, that's right. And well, and also, your jacket barges for installing the head works later. Good. All right. I will just quickly say So naturally, marine motion organisation Anybody else? That's you're just disagreeing with Mr. Truman's on that.

57:55

decades that drilling? And so yeah, just to confirm Yeah, we have no concerns with marine birds health concerns, including risk are all terrestrial as we discussed yesterday, so yeah, that's fine. Fine, thank you. If it lets me put up their hand. I'm not going to get around the round everybody.

58:12

Thank you. Let me now turn to the cooling water and the acoustic fish deterrence.

58:21

I've got some primary questions which I would like to ask them really management organisation, please.

58:29

Hello, good morning.

58:32

There was still morning as we're doing well today.

58:37

But let's low velocity side entry heads for the cooling water intakes. I read that you are asking for impingement predictions without the LDS he has in place or asking for the existing predictions to be reworked.

58:58

If I'm if I'm right on that, and given that my understanding is that the lbs he has are part of the embedded mitigation. Can I understand and is that it also is that the

59:12

project has been assessed on the basis of the Lv SC being in place installed in use and presumably working. Can you just explain to me clarify why you want to see the reworked predictions without the heads.

59:28

Williamson reimagined organisation that this may be one that I defer to written rep for we do have technical specialists that help us on such matters. And I would like them to review that query from you to enable us to reply robustly to that if that's okay with you.

59:43

Okay.

59:46

Hello, Joyce have a

59:49

good there we go with go well, secondly, whilst whilst I'm with you, and this is a question for you and the applicant about it's about the structure and the content.

1:00:00

The statement of common ground between the two of you are tremendously helpful to have a very thorough statement of common ground. But just helped me about dependencies B, and C, all of those because Appendix B is called your 15, section 56 comments which appear to be your round representations. And then we have your additional stroke ies addendum comments as well. Can I just be clear,

1:00:32

our dependencies C, B, and C, simply a record of what has been said up but through the process? In other words, your relevant reps, your written reps, and anything which you've said in relation to the change? Or are they an additional set of exchanges, which I didn't wouldn't otherwise know about?

1:00:55

Sorry, are you referring to state in a common ground document or the written representation, the state the common ground? So I believe these are the summary positions that we already have in common ground. So they are things that we've already raised. But I guess I will confirm that in writing with you once I've Hantz to fully fully review that, but I believe that they are contained within what you have already seen, rather than adicionales. Your BMC look from a quick blog as those that's exactly what you've said in your in your relevant reps. And, and and elsewhere.

1:01:29

Okay, yeah, I believe that from on the spot right here, I believe that's the case. But I will confirm in writing with you Just in case that that was there. And I guess we'll provide a bit more clarity on that, I think there might just be a little bit more detail in those. But I will flag that in the written wrap. It's definitely not I don't believe to be anything majorly new. But I will provide that in writing just to make sure it's very clear, or flag if you just to tell me that you may be modifying it. But modification I would rather see instead of common ground on hand looking for look for it and to put into place. Mr. trogons, could you can you can you help me that on those two points. One is the question of I'd be interested to hear the applicants comments about why reworking of the predictions without the lbs II heads is

1:02:21

helpful. Oh, probably not helpful. And also on the question of the structure and, and the content and state of common ground? Yes, sir. On your first point, I'll come in a moment to Dr. Steven rose, who's the planning manager marine for SSC. But on the second point, just turning up and looking at the parentheses. Yeah, it does appear to me that they essentially are, as I said, a historical record of the programme discussions which went on between the parties. So that's, that's helpful. It's historical record, but plainly, ongoing discussions agreement or non agreement should be in the campground itself rather than Yes, that's right. Yes. That's, that's, I can read, I can read the ding dong elsewhere, or be honest, it's actually quite helpful to have it brought together in one place. But I'm most interested in you sorting out the things which are agreed and the stuff which is still outstanding. Exactly. So. So if I could then turn to Dr. Rose, please to deal with your point about the lpsc. Heads. Just before you do that, as I see that Miss Mackenzie's got her hand up. And in case it miss Mackenzie's your point on this LBC issue? Yes, it is. Yeah. So I am no expert like louella said, we do have technical advisors for this, but I can just give a very short summary as to why we're asking for them to redo that, that assessment. And the reason is because there's limited supporting evidence for the beneficial effects of the lvnc design and the fish recovery in return system. So because we think there's limited evidence to support that, that those features will have beneficial effects. We've asked for them to do a new assessment that assumes that there will have zero effectiveness, because that will of course, be a worst case scenario situation.

1:04:22

Thank you. Thank you. Okay, back to Dr. Grant, then.

1:04:30

Sorry, Mr. Rose. I beg your pardon.

1:04:33

I was living in the past as in yesterday.

1:04:36

Good morning, sir. Yes. Stephen roast on behalf of the applicant. And Miss McKenzie has actually clarified that perfectly well. The issue that we're talking about in terms of the low velocity side entry intake head is the effectiveness of that without a perceived effectiveness of that without

1:05:00

A cue, behavioural cue for the fish to to move away from it as well.

1:05:05

We've obviously gone through a great deal of these kind of calculations in Hinkley Point as well, as Mr. toman said. So, we are doing a sensitivity analysis as requested by the MMR, which will be delivered at D six. I think it's worth commenting, though, that the environmental statement assessment itself does do a staged assessment whereby it includes the perceived mitigation effects of the intake head, and the fish recovery and return systems. So those numbers are calculated in the environmental statement, they then carry through to the overall mitigated design. So we have the numbers. But what we're providing that deadline six will be those numbers without limited perceived mitigation of the low velocity and take head against the background stock and what that might mean, in terms of the impact assessment. I think the other thing that it's worth highlighting is that it is precautionary, in the MMOs statement of Common Ground themselves, they say, well, that the benefits of the adaptive living take hit design on its own are feasible. They're just not proven. So as a worst case scenario, we are doing that sensitivity analysis as well.

1:06:25

So hang on.

1:06:29

You've done. You've done a impingement predictions without the rbse heads, haven't you? Yes, yes. So we we do it. So so the assessment and Dr. brepols and safe Escom could possibly talk to this better, but the assessment is done based on no mitigation, they literally just scaling up from from the figures that we have from size will be in terms of the increased flow. And then we applied various mitigation elements based on the intake head and fish return systems. We have those numbers without the without the mitigation.

1:07:04

But not the comparison against the the overall stock assessment, the baseline,



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which is what the sensitivity analysis will cover. Okay. That's your understanding what the MMO seeking.

1:07:17

Yes, as far as we understand, that's, that's the question they're asking basically remove any perceived benefit of that particular intake.

1:07:26

Fine. Okay. Thank you. And that's coming forward to D six. That's correct. Yes.

1:07:33

Right.

1:07:39

Just stay on stay on the on the line as it were, or you may want to pass back to a colleague national there. They're listening anyway. So why don't you stay there in case this is this is for you.

1:07:49

I want to be clear about the meaning of some terms such as well, particularly entrainment and impingement.

1:07:59

Now,

1:08:01

tell me if I've got this got this in any way wrong, but the term they use quite a lot. entrainment sounds to me looks to me and I have looked at your glossary. But I think this may be used in more than one way in the in the, in the documentation. And training looks to me as though it's when a fish or plankton or something else is drawn into the system. It passes through all the racks, and other mechanical

1:08:32

impediments, and it goes all the way through the cooling system, past the condensers, where the temperature then rises, it goes out the other side and back into the sea. It seems to be you used word and treatment to describe that. And you have great, thank you. Yeah, impingement is a fish or some other organisation hitting any of these racks and screens.

1:09:03

So if you're in trained,

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if a fish is in drained, it could be impinged as well, in fact, probably will be.

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And

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that some fish will be impinged and will then go out through the fish return tunnel.

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That's great that way, but it's but nothing gets them. If anything is drawn in at all. It's going to hit something and we'll be impinged and then either complete the full circuit or take the shortcut out through the fish return tunnel.

1:09:42

So that the the the organisms that go that have been trained, some of them are sufficiently large that they you know that they would hit the hit the screen but still be pulled through. So so there could be that potential potential mechanical interaction. A lot of it is

1:10:00

is x etc, which which are also small enough to pass straight through without touching the site so to speak. So you don't have that impingement of that. But yes, some some right on the borderline could be impinged, but they still pass through.

1:10:13

Thank you. Okay. Understand.

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What do you call?

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What do you call the process where something is drawn in?

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But then goes out through the fish return time because that's clearly not entrainment. Now that's the that's the impingement assessment. So with that there, impinged there onto the screens, and then and then pass through the fish return system out to see.

1:10:44

So there's two that says, so there's the two elements, there's entrainment where it passes through the filtration screen goes all the way through the circuit and goes out through doubtful that is impingement, which are fish that have trapped on the screens, travelled through the fish recovery into return system and are discharged via that out doubtful. As part of the overall assessment, we then are not sure whether you're going to come to it is entrapment, which is obviously both combined, so the

1:11:13

complete impact on the fish, but stuff that goes through the station that retrained and stuff that is part of the material is passed out through the through the fishery 10 system.

1:11:23

entrainment is a wash. So entrainment is the two added together, effectively the small fish and eggs etc, that have been trained, obviously have an impact.

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We compare those with the baseline and the larger fish which go through the official term system. Also, we look at the impacts of that in terms of the baseline assessment. So, entrainment is where you add all of those together and look at the total impact both on the untrained animals and from the entrainment and the impingement.

1:11:57

Right, so it's anybody any any facial plankton award or eggs, we've made that change to the system at all. That's exactly that's all of the material that goes through the system, whether it's returned through the fish return system or or via the outfall. Right, okay, entrainment is all the way through the system. impingement is take the shortcut through the fish return tunnel. And entrainment is the two together. That's correct. Much of life too much advice.

1:12:32

Now's the chance for anybody to disagree with you.

1:12:38

exigencies of fairness, nobody's putting their hand at all it does seem as Dr. Henderson I saw that you had your hand up briefly was Mr. Rice was talking.

1:12:49

Good morning, sir. Morning. Dr. Peter Henderson on behalf of task. Yes. And the reason I put my hand up briefly was that you mentioned that entrainment organisms would be in pinched, they don't necessarily have to be they can pass straight across the travelling screens and then go through the condenser circuit to see but in fact, that point I think was clarify which is why I put my hand I see Thank you very much. Thank you.

1:13:23

Okay, now let me get to, to the to the substance. So let me make sure I understand the position first of all of the

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It's okay. If banks Mr. tremens.

1:13:37

I want to make sure I understand the position of the of the of the applicant and and others in relation to significant effects. So or at large scale now. So your position, Mr. Chairman, your clients position is that

there are no significant effects door from the cooling water system. The temperature the discharge is the content. Its construction, commissioning operation, entrainment, impingement, entrapment, plankton, fish or anything else? Yep. Yes, that's basically the position. So obviously we can we can expand on that to the extent you wish.

1:14:13

Does that's okay.

1:14:15

Natural England, then I'll go to the demo, and I'll get the Environment Agency as as as well.

1:14:25

Clarify for me, please. Where you say there are significant effects on where you say you need further information. I start with you, Mr. Haynes for the natural England check into the drilling and so yeah, I'll offer position on this is outlined in issues 1336 and 4147 of our written representations. There we still have concerns for impacts on fish species assessed in their own right within the HRA, including annex two species include river lamprey, tweet shad, Alice, shad, sea lamprey and Atlantic salmon and also as fish's prey species.

1:15:00

Nearby old Austrian means meatballs, SP. And Rams are birds. So they include golden turns. And then we also have concerns for fish as part of the modern environment. So as a wild, considerate consideration on the EIA, and yeah, those those are impacts from the impingement and train within the cooling water infrastructure, but also the associated thermal chemical plumes and also drilling and bentonite breakout, although that's not the topic of topic here and set it in a wider context. Yeah, we have some concerns on the methodologies, the use of best available evidence and the mitigation considerations. And, as I mentioned, I've got my colleagues here,

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on and if you want any further, any further detailed explanation, revenue specific questions on our concern to

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pass over to those, just just keep it a high level? And my understanding is that your concerns are both at the conclusion of no significant effects, and also was not sufficient data to support that? Yep, I believe that's correct. And um, yeah, I can I can pass on to my colleague, if you want to probe any further. No, at the moment. That's, that's, that's fine. Can I go to? I guess it's Miss McKenzie at the MMO.

1:16:16

you're

1:16:18

rushing. Hi, David. Sorry.

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Thank you, organisation. Yeah, I can cap this point. Are you are you tucking in wholly behind? Naturally in the non resource? Are there any things where you where you

1:16:32

take a different view.

1:16:34

So whilst MMO do genuinely agree with sort of where best available evidence can be used, it should so well, that's brought forward from other interest parties and statutory advice that should be considered. But ultimately, for the MMO. With our comments, we are overall quite content. With the assessments made by the applicant, there are only for us two main issues. So we consider further information is required, one of which obviously, Elon briefly touched upon earlier. And of course, we will look forward to seeing NASA deadline six. But ultimately, it's just that we are hoping to see supplied further sensitivity analysis within report SPP 103 to examine the effectiveness of Lv assay design, and also the fish recovery

1:17:17

and return system gotta use the acronyms correctly. And then ultimately, the only other point we have outstanding on fish impacts are that we are requesting some additional evidence in relation to acoustic fish deterrent options. But other than that we are overall fairly content.

1:17:36

Thank you, we're going to come very shortly to fish deterrence.

1:17:41

I'd like to thank you, the Environment Agency until I hear from them.

1:17:54

I suppose just to highlight, we do have kind of many aspects that we could talk to you on this, I think from in terms of

1:18:04

whether the best possible design has been chosen for the or justified for the cooling water system.

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Whether the fish impingement estimates are

1:18:18

suitable for drawing the conclusions. Within the EIA. There's there's also issues regarding some of the data that's that's been used to,

1:18:31

to carry forward those assessments, as well as the kind of efficacy the some of the the mitigation measures such as the low velocity side entry intakes,

1:18:44

as well as substantial comments about the methodologies used to calculate the

1:18:55

the the impacts of the cooling water system. So I've got specialists who can sort of talk to all of those matters. But for now, just summarise it for five stages. I'm going to keep it at a high level for for the most part, and quite a lot of not today.

1:19:14

Just just help help me.

1:19:18

So some of those things will touch also on your licencing powers your licencing duties, indeed.

1:19:32

Yeah, okay. Well, I think but but you are raising things there which are completely independent of your licencing duties. Is that right? Yes. Is it worth giving a brief summary of how our permitting duties sort of fit in with the decio that'd be helpful. I think a good reasonable grasp of it.

1:19:52

But it's there in a in a in a in a couple of sentences. Then just in case I'm completely off.

1:20:00

That would be helpful. So in very briefly, our water discharge activity permit will consider the water discharge from from the system in terms of minimising any polluting impacts to the sea.

1:20:17

Whereas our comments within the decio space are really around the the impacts of impingement the fish, and I suppose that's specifically in terms of EIA aspects and water Framework Directive impacts in losses to those fish populations. Yeah, yeah, that's fine. Thank you. Thank you. We're on the same page. You'll be glad to know.

1:20:49

Fine, Mr. trogons, I don't think I need to ask you to turn to reply. Because I was just trying to establish what everybody's positions are. But if you do want to now's your, your opportunity on those, and then we'll move on to talk about fish guidance, please.

1:21:07

Well, I think it's right, me, sir. Just to draw your attention to a little bit of history on this in relation to Hinkley Point C. Okay. I think it's probably important to you and your fellow examiners to do know that.

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Just let me I'm sorry to stop you because three hands have gone up too. So I was just I was coming to you. And I don't want to mean to go have to go have to go around again.

1:21:31

Miss

1:21:33

Miss Miller.

1:21:37

Hello, thank you.

1:21:40

I just like to add a few points on the cooling water system and acoustic fish deterrence. If that's possible. Can you do just cooling water and then we'll come to Switzerland in a minute. Okay. Yep. So, our concern is potential effects on predator species. Third predator species that is from reduced prey availability arising from the total entrapment mortality. We support the environment agency's view about the limitations of the assessment that's been provided. And in particular, wanted to know our concern about the level of mitigation achievable by the low velocity side entry intakes. And that's in support of point the point by the Environment Agency. I just wanted to add the concern about the ecological implications for bird species as minsmere Walberswick out attempts estery and old or s3, sbas. And that may not have been adequately assessed as a result. And in particular, we're concerned that the Environment Agency gave an example of illustrated their concerns using smelt in their written representations were based on their concerns. When looking at the assessment, they would not be able to rule out the collapse of that fish population. Given that declines in fish populations can have significant effects on breeding turn colonies. Were concerned that long term depletion in fish populations could result in the loss of colonies or changes in distribution. So as an example, Jennings I 2012, discussed the collapse of a sprat population due to fishing and the subsequent decline in common turns breeding in eastern Scotland, noting that there was a long recovery period for the turn populations even after fishing ceased. So that that's our significant concern in relation to the cooling water system. I'll provide that in in our submissions with all the References and notes provided.

1:23:29

But thank you, thank you. Got that.

1:23:35

Mr. Thompson.

1:23:39

Morning, Sir Stephen Thompson, Eastern Africa inshore fisheries and Conservation Authority. And we do we we do have some concerns, which I understand you're at the moment looking at high level concerns. We're going to go into the detail later. Is that correct? Yes. Well, some detail. Okay, we do have consistent concerns, we recognise that there will be more to inevitably be mortality of fish caused

by this operation. And we recognise efforts by the applicant to mitigate this. But also the many important aspects of this, particularly lb se are untested, and they'll be an opportunity to test them and assess them before they become operational.

1:24:15

We don't consider the impact of this, this operation can be compared with commercial fishing impacts. Because there are many, many options available for the management of commercial fishing impacts such as temporal, spatial and method restriction, which are not going to be applicable to a power station which is operating in the same manner, in the same place for multiple decades. And 24 hours a day, seven days a week, 24 hours a day, seven days a week for

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until we're all until none of us are still around.

1:24:43

And we don't consider that the area over which the initial impacts were assessed the comparison of the impact over over populations, the areas that were initially assessed were appropriate or we recognised the applicants moves to consider over a more local area since then, and

1:25:00

We would like to see some form of monitoring of impingement entrainment ongoing and as monitoring become why and become widely available, because if the impacts exceed the prediction, it may be that some mitigation of those impacts becomes necessary. As I say many of the measures for reduction of entrainment entrapment and drain impingement are untested. And if they if the actuality exceeds the predictions, it may be that subsequent mitigation is necessary

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is that your your detailed view, more detailed view as well as the overview high level, that really was the overview high level, there will be more detail available, which can contribute later if it becomes appropriate.

1:25:48

Okay, so we'll just check on my notes file and bring you in.

1:25:55

We're going to have a discussion about fish stocks.

1:26:00

I think might it may come in?

1:26:05

I think many of these are associated with the cooling water, which is why I bring them up at the moment rather than waiting for the fish stocks because many of them are associated with cooling water or go operation. Right. Well, I'd like you to go on in that case.



1:26:19

Okay. And as I said, that was that was the high level review, in terms of detail the LDC design is a little recognise the efforts in the modelling which has been made this is all modelling and is an untested system as yet, we would like to see that

1:26:36

in adaptive money and adaptive risk management approach to this would be that there is ongoing monitoring of the impact on fish populations. And this exceeds the predictions which have, assuming the predictions eventually come to conclusion no adverse effect that there is subsequent mitigation for those unanticipated effects.

1:26:57

And this does touch on later points where there has been an adult equivalent value assess, but there are other ways of assessing the impacts of what the effects on populations, such as habitat prediction for gun, where it may, in future be possible to envisage the creation of compensator II habitat if it is identified that the effects for instance on young fish exceeds what was predicted at this stage.

1:27:19

Okay, carry on.

1:27:23

And in terms of the company, the comparison between the activity from the impacts from the power station application and the commercial fishing operation, for the reasons I've identified, we don't think that that is it is valid to to make a comparison between the two activities because as you correctly identify this is an operation which will continue in the same way, in the same place in the same manner 24 hours a day for 80 years.

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And the options which are available and which have been used at the management of commercial fisheries, such as temporal restrictions, facial restrictions and activity, restrictions on methods will not be available for this operation. And there will be no opportunity to remove it will be an opportunity to stop it operating. And there'll be limited opportunity to to alter the manner of operation once it is in place and operating. Okay, thank you. Thank you.

1:28:12

I take it that you've been

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you're summarising forming points which are in your written representation Anji? Well, I must confess, we probably haven't made sufficient written representations to you we have been liaising with the developer to use your own code, your wonderful phrase Bucky, which I've never heard before, try and truncate the dingdong we have been liaising with the developer and have been. And that has been a

very satisfactory process. But I will, I will, I will openly admit that we we haven't probably engaged with yourself as much as we should have done.

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But that's fine.

1:28:48

What I would rather it's remedial, remedial.

1:28:53

When you put in your as you know, there's an opportunity at the at the end of this next week to summarise your written submissions. So summarise your your oral submissions. So that's the opportunity which I'd be grateful if you would take Yes, give me the chapter verse and in detail on the points which you've been explaining now. It's very helpful. Thank you that is

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that is that is good get out of jail free close.

1:29:25

Flight.

1:29:27

Are there any other parties who want to

1:29:33

contribute at this point, which is their position on the cooling cooling systems? I've got I've got them from most of the parties.

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Obviously in no written representations, and wanted just to be clear on on the major players, Mr. Henderson.

1:29:51

Yes, sir. The at the broadest level, our concerns are that the number of organisms that will actually fish in particular

1:30:00

Which will be killed by the intake of being grossly underestimated to date. This is because fundamentally, we sample the number of organisms sucked in to say size will be by two methods count the number which are impinged on the 10 millimetre travelling screens and that gives us our impingement number.

1:30:24

And then we also count the number of organisms in a sample of water extracted from the cooling water intake system normally in the in front of the travelling screens using in the case of size will be a pump sampler. Now, the problem is that the pump sampler will only sample larvae and eggs of fish and very small crustaceans. However, because you've got a 10 millimetre mesh, a lot of juvenile fish will pass through that mesh, but they won't be sampled by the pump sampler.

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The result is that at present, EDF and CFS have grossly underestimate the number of small fish that will be caught by the power station and killed

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because of this mismatch between the two systems under use. Now, to give you some concrete examples, in the case of spreads, a spread less than 70 millimetres standard lens can penetrate a 10 millimetre screen, an awful lot of the sprat and less than that length.

1:31:39

In the case of gobies these small little fish which are so abundant in that vast of the world, almost all of them will penetrate a 10 millimetre mesh, so a fish 50 millimetres or 14 millimetres long, which is an adult go through the mesh and getting trained. But it's not counted in in treatment calculations because they're not sampled by a pump sampler, because they can avoid the pump. Now, this becomes particularly serious when we deal with endangered species. lamprey, for example, can penetrate a 10 millimetre mesh even when they're approximately 200 millimetres long. Now, in the environmental statement, it is asserted that you cannot entrain migratory fish like lamprey because the in trainable life stages occurring with freshwater. But what they've forgotten is that you can entrain quite a large fish because it will go through the 10 millimetre mesh and hence pass through the condenser circuit. So, for that reason, another very large scale, the numbers of animals which will actually be killed on this power station and the size we'll see have been greatly underestimated today.

1:33:01

That is not the only large level concern. The second one concerns the operation of these travelling screens.

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The entire cooling water system is one is quite unique. We have never had a cooling water system with a three kilometre long intake canal that large culverts or large culverts will gradually biofouling

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that biofouling will also occur on the travelling screens and all the other equipment linked to the fish return system. Now, normally in an operating power station, you protect against biofouling by chlorination.

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It is proposed at size we'll see that termination will occur after the travelling screens. This is to stop the fish return system fish suffering from exposure to chlorine and hence allowing them to survive.

1:34:02

We have recently got an example of just such a system which has been tried and that is at Marchwood power station in Southampton water. They are now changing the chlorination system to put it in front of the travelling screens. This is because the screens failed and hence stopped working.

1:34:22

There is a real risk. If they were to build this power station in the way they're proposing to that it will fail seriously foul as size will be wood. And that will mean that without inevitably ADF will return to ask permission to move the chlorination in front of the travelling screens because otherwise they'll have an actual threat to the integrity of the powerplant and its cooling water system.

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Now, link to this as well. We're informed that the biofouling have the main COVID. So those three kilometres long will hardly occur because some

1:35:00

Amongst other things, the water flows at two metres per second. And therefore, it's unlikely to fall much in any way it's of six metres diameter. So it doesn't really matter what fouling there is around the edge.

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I'd like to point out that two metres per second is about four knots. Anybody knows anything about ships will find it hard to believe a ship would not gradually accumulate barnacles, tunicates and other found organisms, it just moved at four knots.

1:35:31

Now, the biofouling issue is not simply a question of whether or not insufficient water would flow into the station. As the fouling builds up along that channel, a number of factors come into play. The first of which is that organisms will break off like mussel shells, they will enter into the system and they would jam and the condenser tubes causing erosion and failure. Secondly,

1:36:01

biofouling will always grow on these systems, when you turn the system off, the entirety of that free kilometre channel will go and knock it will consume its oxygen and will kill everything in it. When you turn the pumps back on, a very large volume of anoxic water will flow into the sea and will kill the benthos, which it lands on. I think that gives a general picture of the larger scale issues I have.

1:36:31

Thank you. So tell me, so I understood the So basically, you're saying where you've got long thin fish, which which which can go through the screens, and the pumps, because the pumps are?

1:36:45

Well, they won't take up all the fish they will necessarily be, I guess randomly selective? Yes. Well, all long thin fish, which includes sandeel, which are so important for bird feeding, for example, have not

been sampled. But with the work that's been carried out so far, because they're not impinged because they go through the screen, but they're also not caught by the pump, which was put into the intake forebay to sample for entrainment because they avoid it. They're good swimmers. Therefore, we don't know how many long thin fish size will be sucked in. Therefore we don't know how many long thin fish signs will be sucking. Okay, got you. Thank you very much. Thank you to see best in it. I see you're there.

1:37:36

Yes, hello, thank you very much, Josie Bassinet. I'm speaking for the Walberswick parish Council. I would just like to make a statement to say how strongly we support the statement that was made by the Suffolk Wildlife Trust. And in fact, the last speaker we heard yesterday from the applicant, that everything would be fine for the birds, when we take away their habitat from the marsh, then we heard today that everything will be fine if we take away there

1:38:14

are peaceful migration and movement because of shipping lanes. And now we hear that nothing's going to happen from the fish. But in fact, when we put all these pieces together, when we lose their land habitat, when they potentially collapse the fish stock, when we disrupt their flight from the shipping lanes, you know, the impact has got to be there. And this is I think what we amateurs have yesterday, we're trying to make the point that it's not accurate. And it's not enough to take each of these points separately and make a claim that there's no impact from each of the pieces. If this isn't added up altogether. And this is what all of us who live locally are trying to do, then we will end up in a situation where in fact, all of the worst outcomes will come true. Thank you very much. Thank you.

1:39:13

Mr. Chairman terms, I can now go back to you. And just just so we know where we are. So I'm trying to get an understanding from

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naturally with MMO agency and others have their main positions.

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So you can come back to me now

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with this guidance on how that might change things or not. Okay. I'm keen, as you indicated to keep this this high level.

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I think we will take away Dr. Henderson's point about the biofouling and come back to you with a written response on that. I think that will be one of those

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you have to deal with.

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Likewise on the same fish, we'll come back on the

1:40:00

Come back on the thin fish.

1:40:03

I think we could if that's the approach, we could also come back on the point about the collapse or possible collapse of the smelt population and the food for birds point. I think some that's probably, again, best dealt with in writing unless you want to hear from CFS on that, particularly now.

1:40:23

Mr. Roast I think can deal or Dr. Rose can deal with the point about ongoing monitoring, if you'd like to hear anything on that briefly at a high level, or we could deal with that in writing too low that would help me. Thank you. Well, I hand over to Dr. Roast them to deal with that point. Thank you very much.

1:40:44

Off you go. Dr. Rose. Thanks. So yeah, speaking raced on behalf of the applicant so and I know we've got a session on securing mechanisms later on. But there is a condition on the marine licence which is number for the deanery licence, which is number 50, which is to develop a monitoring plan prior to to abstraction starting.

1:41:06

So just as a bit of background, the way that we look at the the impingement predictions is that we already sample at Sizewell B, we look at the fish that are coming off the off the screens there is Dr. Henderson alluded to earlier. And there's a condition already on the marine licence that that's what we will need to do. Going forward once the operation once the station is operational, that plans to be obviously the details have to be agreed with the Environment Agency and marine management organisation and

1:41:37

natural England etc. But there is already a commitment to do that as requested. Okay, thank you very much. That's that's helpful.

1:41:48

Right, it's now just gone 20 to 12. I think that would be a convenient point for us to adjourn. 15 minutes. And then I want to talk about

1:42:00

fish deterrents. So one of the things I will need to hear from is the gentleman on behalf of fish deterrence. So I haven't got could be good if I if I had an alphabetical list. Dr. Lambert, I think it will be sir. I think that was right. Mr. Chairman. Thank you. I will come back after the chairman, if I may just take five minutes to give you the position regarding Hinkley Point because it is germane to our

discussion. Okay. All right. We will. We'll do that by midterms. your microphone is is very close to your mic and there's quite a bit it means I can hear you very very well. But there's also quite a lot of

1:42:42

lipping wind noise say

1:42:47

Oh, it's got to quiet now. Put it back where it was. That's fine. Okay. Okay, let's take break. 15 minutes is 1142. So 743. So we'll come back at

1:43:00

12 o'clock at noon. Thank you