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00:02
Good morning, everyone. And welcome back to today's issue specific hearings 11th, East Anglia ONE North and East Anglia TWO off we resume, Can I check with the case team that you can hear me and that the recordings, live streams and live captions have started.

00:23
Hi, Caroline, I can confirm that I can see you. And you, you the internal recordings have started and the live stream has also started along with captions.

00:34
Thank you. Okay, so returning to the agenda. We were at item three a, and we were about to return to the applicants to respond to the submissions made by both Mr. Williams and Mr. Carpenter. And again, as we were before, could I just ask everybody to turn the cameras on please? It's great. I can see you or Mr. MC wireless, you would like to continue?

01:07
Yes, thank you, Brian mcnellis for the applicants. With regard through the construction phase elements, we have a significant area available at the substation site, we have the the dedicated ccss construction consolidation sites, we have the footprints within the onshore substation itself. And we have the entirety of work number 33. But that, in essence is the entirety of the landscaping and drainage management area, which is a massive area within that that substation complex those areas are available to us for surface water management. The point we're making before the break is that until we have the detailed design until we have the detailed construction, secrets sequence and construction techniques, it is simply not possible at this stage to treat the same that construction surface water management system suffice to say we do have enough space for that within the within work number 33 and within the order limits and the detail of that will come forward and be approved by the relevant local planning authority. When the this construction surface water management plan is submitted as part of the the final code of construction practice.

02:19
Thank you and I think one of the points that was also raised was where you've got areas of reduced Working Width was that the case on E one as well? Did you have areas of reduced working with Sonny Awan

02:33
Brian Macross Ford Elkins there were various areas of reduced reduced working with phone on East Anglia. One nice thing going on, as we heard yesterday was 37 kilometres in length for the onshore

camp corridor. Our onshore cable corridor for the projects is nine kilometres in length. And we've said it numerous times through to Suffolk County Council. In terms of the differential the difference between East Anglia one and East Anglia two and one large is in regard to the the onshore cable grip itself on our monitoring of the stockpile areas within the onshore cable route. So, we will we will move areas of stockpile, where we are required to instal solids systems or surface water management's pawns attenuation systems. So that all along the onshore cable quarter, we will have isolated areas where it is instead of spoil storage, we will have surface water storage areas. And those areas will edlington through existing drainage networks where were available through May infiltrates. There's a number of mechanisms available to us about point but between the swales we will have alongside the under the drainage talents we have alongside the the temporary construction Hollywood and these suds areas along the onshore cable route. Again, there is adequate space within we've ensured that there's adequate space within the onshore development area within the Ord limits to accommodate the surface water drainage. The pinch points. For instance, state that the at the 100 River upstream and downstream of those areas, we have capacity to hold water particularly on the on the east of the 100 River. We've ability to to to to manage inflow, surface water inflow covenants that area. It we don't envisage it's going to be an issue of Rafah going to surface water coming from the west because of the physical separation of the older road and the physical structures to the rest of donagh River, but that again, not at all information that will feed into the detailed design and the constructability assessments to be undertaken. And the final solution for the for those areas will be presented within the final section. Shorter management Well,

05:02
is there any more information that you can provide into the examination that would increase the level of confidence that these measures can be incorporated and can be accommodated within the audit limits? Or any further information that you can put into an examination in terms of how you would manage that in those reduced working with areas?

05:24
primer grounds for the applicants, I think we can possibly better illustrate what we're talking about when we're talking about the the spoil storage displacement with suds. And sure, the shorter the configuration of the onshore Kibler to reflect that, that that's certainly something we can generate reasonably, reasonably quickly and possibly submit within the update. It's like any other updated operational drainage monitoring plan. I'm sure there's some mechanism we can we can submit a deadline, it's valid information.

05:58
Yeah, perhaps is an additional note, you could provide that for construction. Is your intention to provide an updated outline code of construction practice, a deadline?

06:12
I brahma goudsmit. Applicants, I'll take that I'll take that right in consider it, maybe we perhaps could just an appendix rather than some of the entirety of the documents. But just a clarification of the thing can be incorporated within the final code of construction practice where appropriate.

06:27
And just something else that Mr. Carpenter really raised was the issue of what storm events you had considered in the in the assessment for the construction phase. And you provide any further information on that

06:43
parameterless party sabaton across three, Helena works to address that.

06:51
On behalf of the applicants, in terms of in terms of assessments, I don't believe it's been a detailed data model at the current stage. However, it will be that that there will need to be a reduction to preferred runoff rate. And it should be to at least the 130 year storm due to the timescales and phases of the project. But we will need to respond back on that in writing to confirm.

07:22
Again, is that something that can be incorporated into the Denver motor appendix or

07:31
I'm gonna make some power for the applicant? Yes, we can incorporate that into the information we provide.

07:38
Thank you. And just before we move on, just to and Mr. Williams, what what detail or what level of information if we're going to get some more information in what what would you expect at the applications stage.

07:50
As the applicant said in their opening remarks, the methodology, the policy, and the guidance is the same for construction as it is for operation. Our position is that therefore there should be no difference between the information provided between construction and operation, the risks, if anything, for the construction phase of potentially greater because as Mr. Carpenter referred to the areas of impermeable area are potentially greater, you do have the issues of suspended sediments in any surface water runoff, which are unlikely to be there for the operational phase. So the risk of Friston is potentially greater. So the justification for that ask is certainly there. And that is what we'd expect. The one thing I would add as well actually, is what Miss wicks just referred to, is with the one in 30 return periods, which we would see as not compliant with policy as we say, it should be the same operation as construction and that would be one in 100 100 for

08:50
construction as well. Right. And Mr. Carpenter, would you agree with that?

08:57
on that latter point, madam. Yes. There are two different approaches, which we know that face take one is that to assume exactly the same as Mr. Williams has suggested, which is that the there is still a risk

of such large events and that they therefore, want the same magnitude of event to be considered. There is an alternative approach which tries to look at a comparable level of risk for the duration of the activities on site. So, if the site if the construction is sorry, if the operational phases essentially in perpetuity, do you use one in 100 plus a climate change, if you're going to be constructing on site for for a reduced period, then there is an argument to make that a reduced period should be, should be used, but certainly I would say that no less than one in 30 year, but I think that's at the discretion of the LFA to some extent, but also the confidence within which that design is put together, and the risks that are posed to them to the receptors beneath and I It may well be that in this situation with a clear pathway link between the site and the village, that a more cautious approach, as advocated by Mr. Williams is entirely appropriate.

10:16
What we say to the applicants in that in that situation is if you could take those points on board, what Mr. Williams has said, I want Mr. Carpenter said, and provide that information with with this new appendix for deadline eight, please. Would that be possible?

10:34
Helen works on behalf of applicants? Yes, we'll take that both of those comments on board and give clear guidance within the appendix that we provide. Thank you

10:44
very much. Mr. Carpenter.

10:48
Thank you, Madam, it's just a further point, really, which I touched on earlier, which is that we know we don't accept that, you know that this has to be left to the detailed design stage. But it's entirely possible for the applicant to to adopt a worst case scenario, if they believe they'll disturb the entire site, they should work on the basis of the entire site being vegetated if it might be vegetated at the same time, then that's the worst case scenario they have to allow for and design for. If they can demonstrate with sufficient certainty that it will be working phases, then they can reduce the requirements accordingly, but to to state that, it has to wait till the design period to actually prove the viability of such a scheme is not only not only unreasonable is nothing, it's technically that's a that's a nonsense. Okay.

11:37
The applicants like to respond to that.

11:40
No further comment at the moment.

11:42
Thank you. Okay. And we would you provide any further comments to that? Please take that as an action to respond to that by deadline eight, please.

11:51

Yes, that will be included within the documentation.

11:57
I think actually, in dealing with this particular agenda, we have actually sort of merged into agenda item three, and three, seeing we've actually answered a lot of my questions that I had under those agenda items. So I think in in that case, what I would say is if there's anything else people would like to raise before we move on, in particular with to this agenda item. So starting with Mr. Williams, is there anything further you would like to raise with respect to construction fees?

12:28
There's one point which I should add to your earlier action for us about providing details with regard to EA one. I would also request that you asked for information from the Environment Agency. I believe they were involved in regular discussions with the project promoter at the time, they will have far more detailed information and may be able to provide you with much more help than we will be able to in this instance, which would unfortunately only extend to the minutes of one meeting. In addition to that, I won't have anything else to add at this stage. But I would just add, as Mr. Bedford referred to earlier, some of the points we cover under agenda item four in terms of site hierarchy, infiltration attenuation will be equally applicable to this, but I think it's best we move on now rather than go through that argument here.

13:17
Absolutely fine. Mr. Carpenter, is there anything else you would like to raise into this this item?

13:23
One point, which is our script supposes the reiteration, which is that the issue of abilities, and the turbidity that's in the runoff leaving the site is specific to the construction phase and not the operation phase. And that this therefore has potentially consequences in terms of the amount of storage is required. It's not just about holding the water back, it's about holding it back to get it then treated, and how no considerations of how that might be treated and whether the treatment facilities themselves require require footprints as well. The second point I just wanted to raise as well was that we've talked entirely about the construction phase impacting upon the footprint of the site. The construction phase also impacts upon the water courses and flow routes that route across the site from the upslope watershed across the site to the downslope these also need to be accounted for. And the impact of either their diversion or them allowing to come onto the site and how they are managed and protected, also needs to be considered and this hasn't been considered at all the consequences of allowing off upslope water onto the site is that that is that it mixes with the target site. If that involves that creates a much larger amount of stability and therefore you need even greater storage. So it's a fundamental input to the design philosophy for how you manage construction phase water management. Thank you.

14:40
Thank you misconducts. Very helpful mistakes again, is that something those points could this also be addressed and contained with within the appendix please?

14:51

I think Ellison says Mr. Mr. grellus, will be answered on behalf I think

14:57
Brian mccarl is for the applicants. Yes, we will sent for learned French within the within the appendix. We also would just like to reiterate the experience on the stained blue one, we we acknowledge that we did have issues on the same one on nuance or cantilevered. The the experience of the onshore substation was very, very different. And the issues that we experienced that Mr. Williams is referring to on along the onshore cable Earth, we have identified and incorporated remedial measures within these dangler tuning standard one North projects, as we've, as we've explained previously, and as we've explained at this issue specific hearings, so they are very, very different elements of the construction, we have the the between the onshore cable route, and the the onshore substation. And again, that is the type of information that we we bring forward into the detailed design stage of the projects, and then to the delivery of the projects. And that is all reflected within the detailed construction surface water monitoring plan for the standard before the local planning authority for approval.

16:02
Thank you very much, Mr. gratis. And in that case, I have no further questions for agenda item three. So we'll move on to agenda item four, which is operational foot risk, and drainage starting with item four A, which is surface water footing in Friston and to Suffolk County Council in the first instance, can I just ask, you know, content that the existing surface water flooding issues in Friston have been adequately considered within the outline operational drainage management plan.

16:37
So refer to our earlier point in terms of the Friston surface water management plan and the need for that to be assessed thoroughly and in detail as if it were part of the flood risk assessment. And that position doesn't change.

16:50
And in terms of when we're talking about it, because it is it is it is discussed within the outline operational drainage management plan. What would you What do you mean by smss?

17:01
What level like the the outputs of that surface water management plan assessed in detail to be clear, the applicant does have the model, the hydraulic model, they do not just have the PDF report that is available online. From that you can interpret a lot of data, you can interpret water depths for different return periods, they can run their own return periods through the model, etc. They could even try and adapt to the model not necessarily develop their own hydraulic model as they refer to for detailed design. But it is within their gift to incorporate their development within that hydraulic model, the information is there. I appreciate we're not going to get that now. But we would like to see some sort of assessment of the outputs of the model in more detail than what is simply in the PDF document. Because at the moment, the outline operational drainage management plan refers to what is said in the first and service water management plan and is very good at reiterating that information. But there's no assessment of how that impacts the development and how that affects flood risk post development.

18:03
Mr. Carpenter, have you got anything to add to that?

18:08
Thank you, madam. I'm mindful not to try and strain to the next agenda item which is based on information and existing conditions because that obviously also includes the surface water flooding, so on the assumption that we will then go on discuss it as a separate item. I just want to briefly point out what went on what is what is clear in that there is an ongoing an existing pluvial surface water flood risk to the properties and people in frison Village. This happens in the flood events occur several times a year with a significant event occurring every year or every other year. There's a direct Holic direct hydraulic link between the site and these flood flow routes that pass through the village as demonstrated by public may include your flood risk maps and the BMT frison model study looked at that in more detail hardstanding areas will increase in the area of the development during its operational phase this will generate more runoff and unless there is adequate medic mitigation, and there will be an increased flood risk to the village. So it's it's a fairly straightforward and simple equation in our eyes. You know, to go back to a point that was mentioned earlier in the day in there. This is area has a as a high fluvial flood risk profile. That was that was evident. that's evident in the public domain information. My rock assessment should have picked this up and and the the applicant could have chosen a less vulnerable site but they've chosen not.

19:35
Thank you to miss Wix. Is it possible to produce a further assessment using the outputs from the first and surface water management plan? Why hasn't Why hasn't that been done in the first instance?

19:52
Helena works on behalf of the applicant. We have been provided with the report the BMT report the surface water management plan By Suffolk County Council, we have been provided with the PDF documents as part of this, it would be in the gift of Suffolk County Council together to provide those actual modelling files to us. Obviously, it is been produced for a specific reason for Suffolk County Council, they hold the rights to that modelling, it would be a requirement for them to authorise the delivery of the model document, model files etc to is for us to be able to look at to be able to review it in greater detail. I think one of the things I'd like to reiterate is that the results of the BMT report and the modelling information that was developed in order to produce that report reiterated the understanding of flood risk already, in relation to that site in that week, there was an existing surface water flood risk, and this supported that. It was, it's been acknowledged and recorded in the agreement that we set out in the statement of Common Ground Ia 05 point 06. That flood events in the first scenario resulting from overland flow that occurred during late 2019. Early 2020 was a result of multiple flow paths, and not a direct result of surface water runoff from the land associated a proposed site of the onshore substation, or the National Grid infrastructure is I think it's important to highlight that there are multiple flow paths. And the site wasn't wasn't the only source of that flood risk. And in fact, the BMT report, results indicate that a slightly lesser impact from this area actually than the original Environment Agency surface water flood risk mapping that was produced. Hence, we would need to understand the modelling results which could be provided to us by Suffolk County Council. I think one of the other items is that we would not be looking to increase it, it's important to note that we'd not be looking to increase the flood risk.

Although we've talked about increase in impermeable areas, etc. This is straying into the drainage management plan, I suppose part of the agenda. But the requirement is for us to ensure that we do not increase runoff from the site and therefore we not increasing flood risk downstream. I'll rest on that. I think that's a lot of comments for

22:23
response. And I do Williams.

22:28
Yes, I'm fairly certain that we did send the applicant the hydraulic model, I can double check to be absolutely sure, but I seem to remember it was a very large file, and we had trouble getting it across to them. So it does stick in my memory. But I will double check and confirm. The other point is in relation to the flood event in October 2019. And the impact that that had or that contributed towards the development side countries towards that flood event. It is acknowledged in the statement of common ground that the proposed development site did not contribute a great deal, or it didn't directly affect flooding in first and I think is the exact wording, which is true. He doesn't mean that it doesn't have the potential to in the future. And that is the key point. I think that needs to be distinct.

23:18
Mr. Carpenter.

23:21
Thank you, madam. Either the one of the points I was going to make was was that wish Mr. Williams just in just made which was that there is a clear link. I don't think anyone has articulated at that site was entirely responsible for the flood risk, but there is a direct link and therefore, the if there is an increase in runoff, then then there is an increase in risk to to forest village. The second point I just wanted to make was that in for now, we are mentioning the flood modelling. This forms part of a wider need for assessment which goes back to looking at the adequacy of the characterization of the catchment and the baseline conditions, which I know we're about to go on to talk so I wouldn't say any more but rather, I just think it's important that the the focus of the attention on the flood model is is part of a wider of a wider need for characterising the flood risk in the locality.

24:17
Mr. Williams, did you have a further point to me? Yeah,

24:19
I've just found that email. The first and service water management plan is dated the ninth of June 2020 times 1242 and that was sent to Philip Barry Williamson who understand is now left the applicant but it was also copied into Brian grass and Helena weeks. Okay.

24:37
Thank you for providing that information. Miss Mr. Williams, Miss fix? Is there anything you'd like to come back on there on those submissions?

24:45
No, I will go and review the model files and see what whether whether the software is software that were also able to review it in that may cause an issue. I will need to thank you very much,

24:58
just before moving on to you Generation forby I do have a question for the applicants. In your response to e XQ 2.0. Point 14 concerning accumulative effects assessment, you have stated that you will undertake an assessment for deadline eight using information submitted to the examinations for the proposed Nautilus and ulink projects. Can you confirm whether that will also include foot risk?

25:27
I'll ask Mr. McGraw Ellis to respond on that

25:29
one. Brian mcgillis for the Atkins I believe you're referring to the response to one of the written questions that was submitted recently. So we need to be very clear that the thing that the response was very much that it's not a cumulative impact assessment per se, that we will be seeking to provide. Rather it is because we do not have information on the nature of projects on the final design of projects and such projects are not in sufficiently advanced stage currently. So the intention was, should be examined in order to request we would be willing to provide some visual representations of what potentially the natural, the natural and substation extension could look like. Again, that is without any sane information coming from National Grid, because they simply do not have information, larger National Grid ventures. So it is our best guess, effectively of what the national infrastructure would look like. So that was as far as we were intending to take that that narrative, rather than serving that on the cumulative impact assessment, but that was as far as we were intending to take that that narrative at the stage.

26:47
Thank you for confirming that. Okay, well, we move on to item four B which is baseline information on existing conditions. Turning to the applicants in the first instance, to date only desktop studies have been carried out an EU state in the outline operational drainage management plan, as is normal for unzips that early on completion of detailed design of the National Grid, onshore project substations, confirmation of the ground conditions and infiltration rates and establishment of the catchment hydrological model. Can the detailed design of the surface water management system be finalised? You say as is normal for n steps on what basis Have you made that assumption?

27:38
has an effect on behalf of the applicant? I will pass them Mr. McGrath in relation to to part of that question. Let you step in Mr. Mr. McGinnis straightaway actually, if you want,

27:51
okay. Brahma gras for the applicants. It is it's certainly our experience and applications that this estate the arrangements, the re progressed with other projects of the Likewise, we did note science policy, for instance, adopted a different strategy. Their project is obviously much larger, much longer duration than

our project. In terms of the construction phase, in terms of the nature of the unbalance between the outline information and the detailed information, again, refer back to I believe it's Appendix A of the flood strategy that was identified the differentials between what's expected essentially an opening stage and what's expected at a detail stage. So in terms of fancy projects, the dark lane code of construction practice is the information we've presented before to the panel, where it sets the broad principles of what we what tools we have in our toolbox to apply. And the final quarter of construction practice will identify the final detailed measures that would be deployed and again, that's subject to approval from the relevance planning authority.

29:14
Now, obviously, I know from submissions that the county council just disagree with this. What would you expect to see Mr. Williams at the application stage for major developments in terms of fantastic would you expect there to have been some infiltration testing or ground condition testing?

29:38
Yeah, certainly. I mean, day to day we deal with Town and Country Planning Act planning applications and as Mr. mcgillis refers to Appendix A previously didn't require such information at early stage. However, there is interim guidance issued which is an addendum and is available on our website in addition to Appendix A, that was published around this time Last year, I believe from memory. And that does require that type of information to be submitted outline as Mr. McGrath refers to is our experience with sizewell see that that information is provided. However, we appreciate the applicant hasn't undertaken that testing today, which is why we have asked for those minimum values 10 mil an hour for infiltration to be used. There are consequences to that. However, it is our opinion that that is the hand that the applicant has dealt themselves as it were. And there are consequences, as we say in terms of land take, but that is the consequences of that decision. And we would have preferred to see infiltration testing. But we have accepted that we're not going to get that information and we have worked towards a solution. Despite that.

30:47
I can also see that Mr. Bedford has his hand raised.

30:54
Thank you, Michael microbead was the applicant it was more by way of an aside but in a couple of Mr. McGregor's his answers. When he was explaining how he saw things going forward in future, he had referred to matters then being in due course, for the approval of the relevant planning authority. And I just wanted to make the point, which I'm sure you've picked up already from our various representations, that there is still an issue. Yeah, absolutely. I that's all I was just a by the by as it were.

31:27
Thank you, Mr. Bedford. And then tend to safeties that can see that Mr. Attorney, has his hand raised, who would like to speak first?

31:40

wrench attorney for sizes, just briefly, I know Mr. Carpenter wants to say something as well. But when Mr. McGregor says, Well, this is normal for n sips. The clarification that's really needed is whether it's appropriate for an n step, which involves the sizing of infrastructure of this scale, in an area of known flood risk. And that's the real question, and I suspect the answer, if Mr. McGregor's looks closely is, it is not normal for a proposal, which does that, to have such limited information. And I just draw attention. Mr. capitals, may want to say more about this, but draw attention to the NPS, which makes good I touched on this earlier at 5.7. point five, the flood risk assessment must be proportionate to the risk and the scale nature and location of the project and similar words found in the PPG. So when looking at what information has been derived, what studies have been undertaken and what baseline information has been put before the examination, one has to think about what is the risk? And what is the scale of the project. And in this case, it says, a case of a known risk, and very, very substantial new infrastructure into the area of name race. I don't know if Mr. Carpenter wants to add anything on those points.

33:13

Thank you, Mr. Attorney. Yes, I mean, the point I was going to make was that this really has to be a risk based assessment. And, you know, we know that we have a high risk environment here. And therefore, the degree of baseline definition and risk assessment has to be reported proportional to that. And there is a considerable wealth of information that the applicant has access to that they've chosen not to, to use. There's very high resolution topographic data, which we call LIDAR data, which picks up an enormous amount of granularity of the heterogeneity of the catchment in terms of depressions and so on where flow rates pass, there's been no attempt to do ground investigation, even though the geological maps show that there's considerable variability in the permeability of the underlying strata. There's been no watershed characterization, other than a very broad scale approach, using what's known as the fvh catchment approaches. And this is not even consistent with Defra guidance which for small catchments, they put a strong focus on the need to undertake flow, gauging rainfall monitoring, neither of which have been done. And I'm partially not aware of the time period that the applicant has been interested in this site, but it's entirely routine insensitive developments to put in stream flow, gauging rain gauge monitoring as part and parcel of understanding the baseline conditions, understanding the relationship between rainfall and runoff, and none of these activities have been have been undertaken. And we know that there isn't a recognition by the applicant that they understand that it's important for them to undertake hydraulic modelling. But then there's no assessment in the documentation to date on The characteristics or those of those flow routes through the village. And as has already been highlighted, there's despite numerous invitations to do so there's been no attempt to undertake infiltration testing. And as we've said in previous submissions, the range of values of infiltration are considerable way over many orders of magnitude in the natural environment. So this is not something that can just be left to a quick factor of safety calculation, this is something that's fundamental to determining the viability of the scheme. So, at its most basic, the in the source pathway receptor approach to flood risk assessment to characterise the source to understand how it gets down to, to the receptors, and then the nature of those receptors, the individuals in that in the village, the variability, sorry, their vulnerability, whether they're elderly, whether they're not, whether their houses will be flooded by two inches of water or not, none of this has been assessed. So to us in at the baseline conditions are poorly defined. The results of the of the baseline analysis are therefore

unreliable. And as Mr. Tony pointed out, this goes back to a key point of policy as well as to the adequacy of flood risk assessment.

36:18
Thank you.

36:20
Thank you, Mr. Carpenter, and I returned to the applicants to respond to those points raised please.

36:28
Helen works on behalf of the applicant. All that just respond on on one item, potentially performance democratise, that steps in as well in terms of we believe that the flood risk assessment is proportionate in that it's in that it addresses all sources of flood risk and technologies. That's the primary source of flood risk two, we're dealing primarily at the onshore substation, obviously with the project at the moment. And we understand and acknowledge that there's a surface water flood risk, it is important to note that the we're moving into the areas of the outline operational drainage management plan, because that is the mechanism by which we will be looking to ensure there isn't an increased flood risk as a result of the project. And that In addition, any existing flow which will continue to for conveyance around the site, I will step up, let Mr. Gillis fill fill in on remaining items.

37:27
Thank you parameterless for the applicants really just to reiterate that what we are in essence dealing with here is the surface water management issue. And we have demonstrated within the pipeline operational drainage monitoring plan, but in terms of the E solution, a potential solution for that a not the ideal solution in terms of infiltration, but the fallback position, we have the entirety of the of the Sun system able to be accommodated within a sunset solution, like anything with regard to infiltration is an improvement on that. That was our primary solution were seeking to address an infiltration primary solution, but the fallback being of if all infiltration testing that we undertake if all of the detailed saying that we undertake if the fallback to that is that it is a solid solution with sera infiltration. we've demonstrated within the hard lane operational drainage runs from plan that that can be accommodated within the within the scheme design. touching on the grant investigation works. Just going back to one of the earlier points in terms of current investigation works for the projects. They are scheduled. They are commencing imminently it is a multimillion pound grant investigation campaign that is looking at the entirety of your own short development area. And it does cause in reality some considerable disruption to landowners and landowner practice. So with that, as the reason we have fared great investigation works through as late as possible in the process, especially the grant investigation works will be undertaken post consensus, pre detailed design of government policy with regard to portion of offshore wind and our decision to bring the projects forward as far as practical. We've taken a decision that in order to achieve that, that early delivery of the projects we need to undertake that grant investigation works currently say that is a very comprehensive suite of onshore grant investment investigation works. The results of which I believe will be available towards the end of end of this year. But it is that information will be used to inform the detail the same of the surface water drainage systems both along natural cable corridor, but also at the substation site itself.

39:51
And Mr. Berger's just while I have you on the screen, Mr. Williams did refer to interim guidance that was published last year did you say Mr. Williams

40:01
Correct. Yes.

40:03
Have you have you looked at that? Or have you taken that into account?

40:09
I would need to take that on a trace. Perhaps we reply to that in writing.

40:15
Yeah, if you if you could look at that, and if and if you haven't taken that into account and I would like you to take that into account and produce something for us to to assess your proposals against that interim guidance. Thank you, Mr. Carpenter. Thank you, madam.

40:37
The comment by the applicant that the designs presented, which we will no doubt discuss in due course, demonstrate the viability of the scheme This is dependent entirely on having a robust understanding of the baseline and understanding exactly what the pre development flows are. their understanding of the baseline conditions is weak in it, there is no there is a little there's been little consideration given to the heterogeneity and complexity of the catchment. And this this catchment is engaged as it stands in its in its current state with no attempt to, to do anything about that. So, the suggestion that the designs have demonstrated is viable is not proven, because the Q bar which we will go on to talk about later is, is poorly constrained. And, and therefore, that follows through into the into the design process. The second point I wanted to mention was about the deferral of the ground investigation due to its cost. It's entirely appropriate to undertake phases of ground investigation as you would for any design process. And you can have a small amount of ground investigation done very early at the conceptual stage of pre feasibility stage of a project. So to suggest that it can be pushed that it cannot be done earlier, and that it's significant in size, I think it's a bit misleading, you do perfectly capable to put a backhoe up there with a browser for 500 pounds, and do some do some infiltration testing, clearly that wouldn't provide all the all the information you needed, but it will provide some evidence based infiltration was possible over a different of over a range of starter types. So I think that that's a that's a little bit misleading. And I'm surprised that this this kind of information does not exist to guide an even at an outline stage, you know, whether whether drainage designs are feasible or not.

42:24
Thank

42:26
you, Mr. Carter. Mr. Williams.

42:29
It's quite, it's not something I intend to go into detail on now. But Mr. McGrath, his opening comments did refer to the attenuation option as the primary option. As I said, I don't think it necessarily fits under this agenda item. But it's something I'd just like to flag as we'll come back to that.

42:43
Yeah, of course, bring that back up later when we when we get to that that part of the agenda. Okay, I have no further questions. Does the applicant wish to respond to any of those final submissions there?

42:58
Helena works on behalf of the applicants. I think the comments related to Q bar etc, probably fall under the next agenda item. And I don't think we have response necessarily on the second point either at the moment.

43:12
Okay, in that case, we will move on to agenda item four c which is the outline operational drainage management plan. Some of my questions that I'd have may have already been answered in light of what Mr. Ennis said at the beginning of this session, so we'll just have to, we'll have to go through them and take them as we go. In the first place, methodology and assessment a number of concerns were raised by both Suffolk County Council and cc's at issue specific hearing for and also in written submissions regarding assessment work and assumptions. To the council in the first instance, do you consider that the additional assessments that are now contained within the outline operational drainage management plan submitted deadline six address your concerns?

44:05
Not entirely, not. There is some information provided, which does address some of the concerns such as design assumptions on water depths, side slopes, etc. That is all now compliant with best practice and local guidance. However, we do still have the outstanding issue of the infiltration only approach being prioritised.

44:29
Mr. Carpenter, I could pose the same question to you please. Thank you, Madam

44:36
No, no, we don't consider that the the methodology and assessments undertaken today are satisfactory. I won't reiterate our comments about the poor baseline characterization is applicable to both the construction phase and the operational phase. But it does mean that the cue bar this this one in two year return period which is an approach that is used widely to address the total flows issue which we have raised on numerous occasions in the past. You'll be aware that most flooding is caused by peak flows increasing, but where you have constraints within the existing drainage system than the total flows become important. The approach of bringing the water that flows down to Q bar is one that's widely widely used. However, we would argue that in this situation in this particular situation, this is inappropriate Firstly, because the Q bar is poorly constrained as I just articulated in previous section, the baseline flows are a poorly understood. And the second is that the cue bar itself may not be

sufficient to not cause flooding in frisson the flooding that occurs from Friston is frequently on numerous occasions during any year. And it with significant flooding occurring regularly every year or or every other year. So the assumption that releasing flows that that flow rate will mitigate flood risk is unproven, and the anecdotal evidence would suggest that it is actually inaccurate. So therefore, we have serious reservations about the baseline information and the approach taken.

46:22
Thank you, Mr. Williams.

46:26
On that point, I would also add that the forest and surface water management plan hydraulic model can be used to well as a sensitivity test, as it were, against the fvh. And the FSR previously used rainfall methodologies to determine what that key bar discharge rate is. So it would provide some additional additional justification potentially, or may provide a different rate altogether. But that sensitivity test hasn't been undertaken today.

46:56
Could I ask the applicant to respond to those points piece

47:02
further was sent on behalf of the applicant? Well, I think Firstly, we need to ensure that it's not that that the development is not here to stop any flooding, downstream that the development will be preventing an increase in flooding downstream or any increase of that. So as not to make the existing scenario worse. I think the fuel by rates will offer if anything, a better solution than a variable. Greenfield run off this charge, which would provide the bigger discharge rate that the green Greenfield runoff rates for the one and 100 events, for example. So what's been demonstrated in in the outline operational management plan is that should infiltration not work at all, then we still can delete an attenuation pond that will secure an old back water to prevent an increase of the downstream flooding.

48:23
Okay, thank you for that. Just to the council. In the interim yajnas have stated that they've assumed a worst case scenario predevelopment Greenfield discharge rate to the first and watercourse with new infiltration. In your submissions, you state that this is only the worst case no for discharge and not potential potential land take. Could you elaborate on that point, please.

48:50
So the discharge rate that's ashamed is based on the fvh methodology. As the applicant refers to themselves, they do intend to undertake hydraulic modelling detailed design stage that could identify that a lower discharge rate is the existing situation and it is what we would then expect them to mimic. So in that instance, the land take required because of the lower discharge rate would be greater. So this is the same for the infiltration issue as well. So the infiltration rate used to shows the maximum land that is required in the worst case scenario for suds, just because they're using an fvh discharge. Right. That's worst case in terms of flood risk terms. That's the purpose of their assessment, but it's not worst case in terms of land take as per Rochdale envelope.

49:42
Thank you. Does the applicant have anything to respond on that point?

49:48
Yeah, I just like to reiterate what was said by the applicant earlier on that our primary approach where possible will be the infiltrations systems and we'll design according to the rates that are demonstrated to be existing on the on the site. The lunk take also, following the meeting, we are with the LFA. And the LPA will be maximised within the site providing that it doesn't compromise any of the other deliverables within the site, the infrastructure and landscape that needs to be delivered along with this site. But if it's required, then all all the space available after these things are delivered, will be used for for the use of for the disposal of water or retention of water, depending on how the system's gonna work.

50:54
Mr. Williams.

50:57
Is it worth clarifying the discussions that took place last Friday, which the applicant just referred to?

51:04
Yeah, I mean, I was going to come on to them in the next in the next hour or so tie rockin infiltration. But if you want to we can we can move on to to that in just a moment, actually. Just to regarless Do you have anything further you wish to add?

51:21
Yes. Brian McCullough sport outcomes. Thank you just to add on, follow up on pedders submission within the outline operational drainage monitoring plan, table 7.3. Does consider variability of Q bar rates. And we have assessed a, what we consider to be the current q bar, which is 7.99 litres per second. And we've identified the storage requirements associated with our Q bar rate. This relates to the onshore substation specifically, we have also tested that Q bar to see what happens with the storage requirements should the Q bar rate reduce, we've tested all the way down to five litres per second, which we consider to be the minimum practical discharge rate. And we can see from from 7.9 q bar, the storage requirement is 14 14,893 metre cube. And if that's you're just starting to even five litres per second, the storage requirement increases slightly to 15,379 metre cubed. So even with that variability of kubarz, we're demonstrating that within the within the site within the design of the sub system and the substance, that we do have adequate space in order to facilitate that for variability and kubarz.

52:42
Carpenter

52:45

Thank you, Madam, we're not we're not disputing that has been a sensitivity analysis of sorts undertaken on the cube. But our point is that because the catchment is poorly understood, because we know from the evidences that's available to answer in terms of the high resolution, LIDAR topographic data that there are significant depressions with within the footprint and just around the footprint of the site. And we know from our walkover surveys and our interviews with local residents, that these depressions take considerable quantities of runoff water and routed directly into the ground, that having a handle on the Q bar is problematic, and that the likelihood is that it is much lower than previously thought. So that the sensitivity analysis was it's helpful. It's it has no context, because it's not clear with us that the sensitivity analysis actually covers the full range of possible CueBall baseline flows that could exist.

53:47
Thank you very much, Mr. Carpenter. The applicants like to respond before we move on to the next part of this item

53:56
is sent on behalf of the applicant. Well, I believe the latest submission of the application demonstrates that were the footprint of the of the site impacts on any existing attenuation systems or natural attenuation pockets. Those have been considered and if possible will move up the catchment area for those same basins otherwise they were included within the proposed final attenuation system provided. So we did consider all of the all of the catchments and all of the existing pockets of attenuation that currently exist on the site.

54:48
Mr. Williams?

54:50
Yeah, I just raised our last submission, we did highlight the relocation of one of those existing depressions is not agreeable to Suffolk County. counsel,

55:01
I've got some questions on that in the next 10 minutes. Thank you. Okay. And in that case, I would like to move on to the next section, which is this hierarchy. And then infiltration and, and attenuation. Before we do, obviously, Mr. Ennis, did set out this morning, and their intention to submit an updated outline operational change management plan, which they consider now puts infiltration is option one and attenuation as option two, have I got that correct.

55:49
That was sent on behalf of the applicant? Yes. infiltrations from everything.

55:54
And and, Mr. Williams, do you? Do you want to provide us with an update on on discussions that you've been having with with the applicants? And do you understand that to be the case as well?

56:04
Yes, so we understand that to be the case that infiltration will be prioritised. We acknowledge at the previous submission by the applicant, that there is a clash between the provision of landscaping and the land required for an infiltration only approach. Now as mlfa, our priority is to achieve the optimal such design. And that is an infiltration only approach when there is the clash with other mitigation options B that landscape in this instance, or anything else for that matter. That is something that we would normally refer to the LPA or in this instance, most likely yourselves. Now, what we've asked the applicant for at this stage is to identify what land is at risk of a clash as it were mitigation clash, and make that very clear on a plan. So that we can see this is where the infiltration only sides are impacting on landscape mitigation. Once that has been identified, we would then like to see what the absolute minimum land the applicant feel they can provide is force infiltration suds. So once we have that absolute minimum, we know what we can work with them. From that we can deduce what an infiltration rate may be required in order for an infiltration only approach to work with a base and of that size. Now beyond that, infiltration still must be prioritised. And if it turns out that we can get more land for infiltration and suds, then fantastic a detailed design stage, but we have that minimum. After that there's an overflow to the first and main river. Now I stress the point that it's an overflow, most common rainfall events should be dealt with by infiltration only, only the extreme rainfall events would be permitted to discharge to the first and main river at a restricted rate be that key bar to be determined as part of detailed hydraulic modelling. That was my takeaway from Friday's meeting, it's probably worth maybe we're going to the applicant to get their input first.

58:08
I think I think just before we do that, so given what the applicants are now intending on doing, does that mean everybody is now an agreement that should that come forward, that you're now content that it would accord with this hierarchy,

58:26
we would say that we still as Elena left as llf A we still support a infiltration only approach and that maximum land take has been identified if there is a clash with landscaping, and the examining authority decide that that landscaping is necessary and that mitigation cannot move and that land cannot be used for infiltration suds, and we are advised of that then we can take that into our consideration, but until we have that clear determination, that land cannot be used for suds, it is used for something else, then opposition will remain unchanged. And it will be that we promote infiltration only suds and that land take is necessary.

59:05
Okay, but it may be the case that further testing may reduce the size of the requirement. infiltration. Yeah, in which case it wouldn't have necessarily an impact. So if the applicants are proposing a option, option one, which is infiltration only, which is the first port of call, and then only at that point, you they would move to attenuation. Would that satisfy you that that then accords with this hierarchy?

59:34

It would be option one infiltration. Yeah, option B infiltration with a discharge for the higher return period events. And then option three would be there's no infiltration possible. And then that is the discharge to the main river, but we have issues with that as well, which we'll get on to at a later stage.

59:53
Yeah, that's fine. Just to the applicants then on that matter is that your intention missed Wanting to just describe them in terms of auction? Why not pretty obviously. Is that is that what you're proposing to submit?

1:00:08
parameterless for delticom Yes, absolutely. That is the final summary of our calls last week on this matter. So it will be the premier solutions institution and we will work down the hierarchy as required. On the point of minimum or maximum Atlantic's, it's simply not possible at this stage to identify a minimum or maximum lantic for surface water drainage solution. It is solely dependent on as an example, public consultation that we're in need to have undertaken post consent with local human bodies on the landscaping, that we've committed to your opposition, the same principle statements, we cannot compromise or prejudice that consultation by identifying at this stage what a maximum or minimum amount of land take would be required. Other considerations, being the footprint of substations of national grid, for instance, adopt a GIS solution rather than an AI solution that significantly reduces the amount of hardstanding within the onshore development area. I guess what we need to we can't go too far down the process at this point in time, the information is not there. In terms of the design, it's not there in terms of growing conditions. What we are committing to is d infiltration where as a primary solution, and the detailed operational drainage sponsored plan, the final final operational response plan will contain the precise details of the off the off the surface water drainage solution, as integrated with the landscaping on biodiversity on access on all the other elements we need to take into account in establishing the viability and practicality of the of the final solution

1:02:00
to now you agree with the council now that the Setai rocky infiltration first, followed by infiltration attenuation, that attenuation you're in agreement with the Council on that point now as well.

1:02:15
Ram across but an alkene status exactly the strategy that we're adopting? Yes.

1:02:20
Mr. Carpenter.

1:02:23
Thank you, Madam, I have two points that I wanted to raise. The first is, in part a clarification on the on the hierarchy. But I think it's an important point. So clearly, there is an understanding on all parties that get that infiltration only is the preference that the council wants to see and the applicant is sounds like they're committed to trying to achieve that. And the least favourable option is no infiltration and attenuation. And then direct discharge to the fist and mortar course, in between is this hybrid, which I

recognise the council has been trying to get some clarity on in that declared in that the council is saying and we would agree with them, that you still need to maximise the amount of infiltration in that hybrid solution. And I wanted to just get confirmation that that is what's intended. Well, first of all, that I'm not misrepresenting the council and secondly, that the applicant is also agreeing to the approach. So it's not the case of we will do a little bit of infiltration and therefore we have a hybrid solution, rather than the maximise that because this does have consequences in terms of viability. If they're maximising infiltration, then it means that the infiltration structure has to be full before it over tops, when it over tops, there has to be over top at q bar, which you can't actually do unless it goes into another attenuation structure, which which then over which it then flows out of that Q bar. So the consequences in terms of land take significant if they are committed committing to that, which brings me on to the last point I wanted to make which was that in the previous section, and I think again, just the applicant has stated quite clearly that the drainage options they consider to be viable will be constrained by other issues, including landscape design and not biodiversity and other parameters. And we consider this is entirely inappropriate, there is a policy and requirement to ensure there is no additional increase in flood risk to third parties around development. It cannot be compromised by the need for landscape biodiversity or other issues rather those have to clearly there has to be integration of design and clearly there has to be an acceptance that these other issues need to be considered but the landscape and biodiversity issues should not be compromising the flood risk that is resulting from a development to third parties in down downstream with the sign. Thank you

1:04:56
very much Mr. Carpenter with the app and like to respond to that

1:05:01
sent on behalf of the applicant. So I just like to highlight that the applicant is committed and to use the maximise the use of infiltration, and it's for the their benefit as well. So perhaps I'll pass on footballing if he wants to live on.

1:05:24
Yeah, comments about the outcome just to confirm that the principles of, of where other matters might come into the equation is the application of the hierarchy, not in any way to compromise the commitments regarding the the discharge rates, or future risk to flooding? So make that absolutely clear, the the applicants position was very clearly predicated it's with an applying the hierarchy, not in any way to compromise, that fundamental principle of the drainage management plan. I just wanted to make that clips to suggest that the comments around other aspects only coming in to determining what is practicable in the context of the hierarchy. And not in any way to compromise that fundamental principle, which has been at the heart of the applicants position throughout the design of the drainage solutions.

1:06:26
Okay, thank you. It's just after one o'clock now, we haven't got a lot left to to get through. Would anyone object if we just took a 30 minute lunch today? Would anyone have a problem with that? Okay, well, it's just after one o'clock. So what I'll say is, we'll come back at 1335 this afternoon. Thank you very much, everyone.