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00:02
So good morning. Can people hear me clearly? Yes, Mr. Gleeson, I can hear clearly. Thank you and can Ms Patten confirm live streaming the event has commenced. I can confirm that the live streams commenced. Thank you. For those watching the live stream should we at any point to Jen proceedings will have to stop the live stream in order to give us clear recording files. Therefore, when we commence the meeting, restart the live stream. You'll need to refresh your browser page to view the restarted stream. I'll remind you again this should we need to adjourn. So the time is now 10 o'clock and time for this meeting. To begin. I'd like to welcome you all to this issue specific hearing on environmental matters in relation to the application made by highways England for the A 1 in Northumberland, Morpeth to Ellingham. The developments proposed comprises two parts, with Part A being the widening of the existing single carriageway to a dual carriageway for approximately 12.6 kilometres of the existing Awan between Morpeth and Felton includes approximately 6.5 kilometres one line widening and 6.1 kilometres of new offline highway. Part B involves the widening of existing carriageway to a dual carriageway for approximately eight kilometres of existing a one between Alnwick and Ellingham. Thank you for attending this virtual meeting. My name is Kevin Gleeson. I'm a chartered town planner. And I'm a planning inspector employed by the planning Inspectorate had been appointed by the Secretary of State for housing Communities and Local governments to be the lead member of the panel to examine this application. I'm now going to ask my fellow panel member to introduce himself.

02:05
Thank you, Mr. Gleeson. My name is Andre Pinto and I am also charged on planner in planning inspector employed by the planning Inspectorate. I have been appointed by the Secretary of State to be a member of the panel for the examination of this application.

02:24
So together we constitute the examining authority of this application. And we will be reporting to the Secretary of State's transport with a recommendation as to whether the development consent order should be made. Is there anyone intending to participate in this hearing who has not participated in or observed any previous hearing?

02:49
Yes, I haven't participated in hearing previously.

02:53
Thank you. Okay. So I'll do the fuller introduction. So you're aware of situation in terms of housekeeping. So today, we're joined by Candice Patten, who's the case manager for this project, and James Bunten George Harrold, Who are the members of the case team. This meeting is being held on the Microsoft team's platform has been live streams. In order to minimise background noise, can you

please make sure your phone is switched off or turn to silence, and you stay muted with your camera off unless you're speaking? If you wish to speak as relevant points on the hearing, please use the Microsoft team's hands up function. And please wait to be invited to speak. Can I also remind people that the chat function in Microsoft Teams won't work? So please don't try to use this to ask any questions or post any comments. Please speak loudly. And clearly. If you don't manage to speak at the relevant points in the agenda, there will be an opportunity at the end of the meeting for you to do so under item six on the agenda, any other matters. Because the digital recordings that we make are retained and published. They form a public record that can contain your personal information, and switch the general data protection regulation applies. Consequently, if you participate in today's hearing, it's important that you understand that you will be live streamed and recorded and that the digital recording will be published. If you don't want your image to be recorded, you can switch off your camera.

04:33
Does anyone have any questions with regards to this matter? What's your hand any hands up? So I'll continue. As already mentioned, each time you speak Could you introduce yourself and if you're representing someone who they are.

04:53
As this is a public examination, even if you haven't indicated you wish to speak if there is a point you wish to make Please feel free to indicate the relevant time that you wish to contribute. The hearing today will be a structured discussion which will be led by the examining authority. Based on the agenda that has already been published. The purpose of the hearing is to enable you to answer any questions that we might have to ensure that we have all the information that we need in order to make a recommendation to the Secretary of State's. This is the fifth issue specific hearing to be held in this examination. It's being held because the examining authority wishes to question the applicants and hear from interested parties, primarily arising from the applicants change requests, one, two, and three. So I'd now like to turn to the agenda. The agenda for this hearing was published on the project page of the inspector websites on Wednesday, the second of June. The substantive items on the agenda are as follows. And hopefully, you can see that on the screen. So under item two, will focus on change request two and three. We've identified topics for discussion and the three bullet points, namely the impacts of the proposed changes on the geomorphology hydrology of the river coconuts. The effects of proposed changes on biodiversity ecology, the natural environment, and then the other outstanding matters between the applicant, the Environment Agency and natural England. item three on the agenda, we'll consider change request one, and then two, that item will be considering the landscape and visual effects, and the combines and cumulative effects of the proposed change. item four provides an opportunity for any additional IPS, affected by the proposed development to make halls representations on matters addressed at previous hearings. Although we've not had any requests to become interested parties as a result of the change requests. So we'll seek to allocate sufficient time to each issue to allow proper consideration of them. As with previous hearings, we propose that the table be split into three sessions, each for approximately an hour and a half. So at the completion of this session at around 1130, we'd have a break of half an hour, before resuming at 12 and continuing until 130. The final session is today would take place between 230 and four. We will of course be flexible about those timings will conclude the hearing as soon as all relevant contributions have been made,

and all questions asked and responded to that may mean that we don't need all of the timetable sessions. But discussion can be completed and they are likely to be issues which take longer, it may be necessary to prioritise matters, and refer others to written questions. We've already had four issues specific hearings on the environmental matters and thus the considerable number of written questions. So we won't be pursuing matters where they have been satisfactorily addressed already. That's previously indicated. This issue specific hearing is primarily focused on the applicants proposed changes to the application. So I'd now like to say the names of those who wish to speak at this hearing. When giving your name please indicate who you represent. I'll begin with the applicants.

08:52
Good morning, sir. My name is Michael, Greig, from DLA Piper clusters representing the applicant. Assisted obviously today, sir with a considerable number of sporting experts. I propose to go through them all. Just now given the number but to introduce them as we go through

09:16
the agenda. That's absolutely fine. Thank you. And for Northumberland county council.

09:27
Thank you. So my name is Katherine Robbie, I'm a senior town planner with Northumberland County Council. Today I've got with me Ann Deary-Francis, a chartered ecologist. I don't expect that we will need to speak today. But we're here just in case you've got any questions for us.

09:44
Thank you very much, Ms Robbie, and the Environment Agency. Hi, my

09:51
name is Lucy Mo I represent an Environment Agency planner, supported by Christophe Dabrowski. He's a biodiversity officer and Alistair Laverty laboratory here is a genealogist

10:03
that's great. Thank you very much as well. And is there anyone else who wishes to speak today?

10:15
I'm not getting any indication that there is but as I've said previously, if anyone additional does wish to speak, please use the hands up function. Thank you. So as indicated in the agenda, the key documents that we're likely to be referring to throughout this hearing are as follows. Track development consent order, the outline construction, environmental management plan or camp, the outline, construction traffic management plan, culvert mitigation strategy change request letter E s addendum on earthwork amendments, he acid enzyme on stabilisation works. He acid enzyme on Southern access works. Refer kokott fluvial geomorphology assessments, the parapets dewatering assessments, the option appraisal of the river cocom, which foundation stabilisation and scour protection system and finally the river coconuts hydraulic modelling report. So that's addresses the first item on the agenda. Welcome introductions and arrangements for the hearings. Are there any questions of an introductory or preliminary nature

11:41
cannot see any hands up. So on that basis, we'll move on to item two, which is change requests two and three on which Mr. Pinto will lead. Thank you.

12:00
Thank you, Mr. Gleeson. As Mr. Gleeson has just highlighted, the first item, substantive item of today's hearing is regarding change request two and three, which will actually take together those two change requests as they make more sense for us in terms of the questions that we are going to ask do today the bullet points that were identified for these item would consider the impact of the proposed changes two and three on the geomorphology and hydrology of the river co-head particularly in relation to scour protection, then to consider the effects of two proposed changes to influence biodiversity ecology, international environment, and then finally, to consider any other outstanding matters still under discussion between the applicant, the environmental agency and natural England particularly. So, I would like us to start with the first bullet point linked with geomorphology in hydrology of the river korkut particularly related to scour protection. So in order to not set context for this particular changes in their effects on geomorphology and hydrology. Could I please ask the applicant to start by providing a brief overview of the proposed change to in three As it stands, please? So Mr. Greig

13:47
Yes, sir. Just put by obviously, by way of context, what we're what we're dealing with here is the crossing of the river kokott with with a new a new bridge for the southbound carriageway, and obviously, the one is a very significant arterial route. It's the primary route traffic routes on the east coast of the country linking Scotland and England. So it has a very significant strategic role for road traffic. Now, during the detailed design work, which has been ongoing during this process, and it's been referred to previously at hearings that in common with other highways England projects, aspects about detailed design are carried out hand in hand with the dcl application. So, during detail design, it was it was discovered by the consultants engineers at There are current stability issues primarily with the the north side of the river, which means that additional ground stabilisation work is required in order for the bridge to be constructed. So, a number of options have been looked at in order to find the best best option, the best engineering option to provide the required level of stabilisation. So, effectively we have sir firstly is our current stabilisation proposal in the vicinity of the the peers for the for the new bridge. And that's the first aspect of the change request associated with that sir, one of the issues which was also uncovered in the detailed engineering work was the potential impact which the flow of the river has on the north and south riverbank. And it was was assessed that there would also be a requirement to provide measures to protect the new piles and piers from the effect of erosion from the river. So the second aspect is that the north and south of the riverbank, there is a degree of scour protection required. Again, so, there's been a number of options, which have been looked at, for for that scary protection. But the optimal option involves a degree of rock harmony for the slopes. And the third part of the change request in relation to change request three is the provision of temporary bridge to link the north and south banks. Obviously, sir, as part of the work, which is going to be required to carry out the integrated stabilisation operations that will be quite significant operations taking place. And this facility in any event, and the opportunity was identified to provide an alternative means of access to the south bank, the difficulty there is that in relation to the original proposals, the the access route to the to the

southern bank is quite steep, quite difficult and rich require quite significant engineering operations with associated environmental impacts. So the benefit of the proposed bridge, the temporary bridge is that the southern bank can be accessed from the north. It avoids the need for those potentially intrusive works to gain access from the south. So that that's why that forms part of the proposal. So that's a brief summary of of what's before you.

18:14
Thank you very much. Mr. Greig. Can I also confirm because in some of the documentation that you have submitted previously, you have mentioned that it is your opinion as the applicant that you will be able to actually Bri build the scheme. Without this change? Can you actually confirm that that is still situation?

18:37
Well, so the difficulty is that the the engineering operations which are required for the stability on the site, which took a bit both change request two and three,

18:50
and all parts, talking about change requests. So I don't actually have do reference to and I believe it was referenced within your change request letter. Although I am trying to very quickly find it. And I can't focus at the moment. But I do recall reading within the information that you have submitted, that you can confirm that the project would still be able to be built without the change request. And I'm just asking you to confirm if that is still the case, or if the applicant believes that change requests is essential to actually deliver the proposal. Or if you can deliver the proposal without change request.

19:37
The position says it's physically possible to deliver the project without change request, but the difficulty is or is that there are potential then long term stability issues associated with the bridge. So the question is whether it would be sensible In fact, to do so because we know that our Ability issues. And the applicants view is that that that would not be a form of development, which is a responsible public sector developer that they would wish to proceed with, when they know that these stability issues are there, hence why we are proposing a change request proposals.

20:25
That's okay. Thank you very much for that, Mr. Greig, if if we could perhaps following this meeting, perhaps have a clearer position statement on that. So if we could extract a connection for that that might be useful in terms of clarifying what the latest position is on this issue in terms of deliverability of the project. But moving on, can I just ask the applicant to please summarise the effects of both this to realisation works in the southern access work. So basically changed to in theory, as you have explained to us now, in relation to each one of the environmental segment, topics assessed attend as topics, for instance, position works, and six topics, assess for the sudden excess works in how these have been assessed, in defects, please.

21:22

Sorry, so you want, you want us to summarise how we approached the assessment of all of the environmental topics of the years for each part of the change request,

21:35
that to summarise how you have approached it, and also the effects that you have identified for each one of the changes. So change to wind change three?

21:45
Right, I suspect, it may be one of my colleagues who may be better placed to provide that sort of summary. As opposed to myself, and we're just waiting for a virtual posted note at the moment to tell me which of them would be we'd be, we'd be the person who would be the case person is take that one on?

22:16
Me, that's fine. Mr. Greig, we can we can we can we can wait for that information.

22:24
I mean, obviously, Sir, what's what's happened in general terms is that for both change requests two and three, the the applicant has looked at the relevant findings originally, yes. And as then assess, for each of the relevant topics, what the additional impact would be for those for those environmental topics, to determine whether there's been a change to the findings. So effectively, the same same methodology has been used for as was used in the US, and that is then merely replicated in the USA, then for for change request to change requests three, and there was in turn, identify whether there had been any additional impacts associated with the change requests.

23:29
That's fine. Mr. Greig, I was hoping that we would also be able to, you would also be able to actually explain or someone within your team would be able to actually cover how the impacts have been classed. So from whatever classification you have adopted, sell minor adverse to moderate adverse effects have actually come to that conclusion.

23:51
Yeah, I think it may well be opened up learning a bit here. But I think it may well be Kevin Stubbs, that might be the best person to to give that sort of overall view in terms of the general approach, if that would assist.

24:10
Yes, thank you. Mr. Greig. Mr.Stubbs, would you be able to help us with this information?

24:17
I forgive ago, Kevin Stubbs from w SP. Yes. So as Mr. Greig has already said, we've assessed the change over and above what we previously assessed. We followed the same methodology for each topic areas set out in chapter two and as detailed in each of the relevant topic chapters, so there's no

change in methodology between the methodology reviews for the main environmental statements and for the change requests. It's all similar or the same.

25:03
Thank you, Mr. Stubbs would, would you be able to talk a little bit further perhaps in a little bit more detail in terms of the main differences between how the impacts have been classed, so what constitutes and minor adverse impact or moderate adverse impact in how you actually come to those conclusions and how you define those?

25:32
Can we follow the same methodology as set out, as I said in chapter two, which I don't have in front of me, but we break categorise into generally does vary for some topic areas you have in within dmrb have their own specific nuances in the way they're reported. But in general, we follow the same principles of neutral, no change, slight adverse moderates, large and very large, both beneficial and adverse effects. Now, as as, as we have done within the Yes, we've considered anything above slight adverse or beneficial as significant. So anything that is slight, or minor, or no change with is not considered significant throughout the Yes. And within the change requests.

26:30
You said slight, a slight minor or no change,

26:33
I say minor because some topic areas use minor rather than slight or there are nuances, as I said, between topic areas and dmrb. And they sit out within their own particular chapters, the specific methodology for each of those.

26:50
And are there any strict criterias that you apply? So are there any categories? Basically, it's my question. So are there specific categories that you would apply in order to come to the conclusion of it being slighted versus minor or no change? Or is it a professional judgement alongside devaluation of the of the evidence that you have collected?

27:18
Yeah, so based on the magnitude of impact on a particular receptor, so the each topic area is slightly different, but there are criteria for various topic areas, which sets out the magnitude of change, and then that's drawn through to the based on a baseline. So obviously, there's a baseline assessment, which sets out what the effects are currently within look at the magnitude of change. And then from that derive a significance of effect.

27:49
Thank you very much, Mr.Stubbs. Thank you for that information. And now, if I could turn to Mr. Greig, again, please. Or if you could point me in the right direction, if not yourself, Mr. Greig. My next question has got to do with discussions with other IPS. So would you be able to actually summarise where we are with those discussions, particularly in relation to change to in change? Three, I would be particularly

interested in hearing a summary and an update on where we stand in terms of the discussions with natural England agency, Northumberland county council?

28:35
Well, I think the position is quite a positive one at the moment. I think it was alluded to at that last hearing that we were having discussions, particularly with the Environment Agency, in relation to agreements for compensation. Just to cut a long story short, I'll come back and answer your question when we leave it, things have moved on. And we've now reached agreement with the Environment Agency and the terms of the compensation agreement, which was referred to previously which is I understand that means that the remaining issues with the Environment Agency have been resolved. And my understanding is the position is similar with natural England and again, the position with Northumberland county council in relation to change request in order to correct me if I'm wrong, but I think they were relying on the the expert analysis by the relevant statutory consultees. So effectively, the position is that if matters are resolved with with the Environment Agency and then unnatural England, then similarly the result results as far as the change request is concerned with the Northumberland county cancel. Now there had been the Whereas when I say the result of the position is that there are there are two areas where the parties are not in full agreement in relation to the assessment of impacts associated with change requests to industry. And so both the Environment Agency and natural England were of the view that the the impact on biodiversity biodiversity from the loss of riverbank was a large charged adverse impact, whereas, we were the view that it was a moderate adverse impact. But both of us agree that it was still a significant impact, which which required compensation. And in relation to geomorphology. There was a disagreement in relation to that, in that the Environment Agency had considered that there was an adverse or moderate adverse impact in relation to geomorphology from the decoupling of the banks from the river, whereas the position of the applicant was that it was a minor adverse and pattern, it's not significant. So, that was the extent of the primary areas of disagreement. However, what, what, what what the bit of work that has now moved on, because the Environment Agency has agreed that provided that we were able to agree appropriate offsite compensation for both the impact on the riverbank under riverine impacts, then that would effectively resolve the issue as far as they were concerned. And as I say, sir, that is the position we are now in, we now have already Currently, we now have agreed terms for an agreement. And as I say, my understanding is that resolves the remaining issues between the applicant and the statutory certainly between between the applicant and the Environment Agency, and hence, there's nothing outstanding between us in relation to natural England. We have provided them with the terms of the finalised agreement, we're still waiting to hear back from them just to confirm that they're content with that, but my understanding is it's likely that will be the case and that service where we currently are.

32:41
Thank you for that. Mr. Greig. I would Nevertheless, I note what you have mentioned in terms of the agreement in how you have actually reached it with the Environment Agency and natural England but I would also like to test a little bit more in terms of how you have come to the assessment that you did, and it is my understanding that the applicant has come to an assessment of minor, moderate adverse, actually minor adverse or moderate adverse in relation to the impact of change to and change three Anja river callkit would someone within your team actually be able to explain a little bit further how you actually arrive to that specific conclusion.

33:40
Yes, sir. I suspect that might initially be a question for Dr. Ian Griffin, who is that the lead from cgp. In relation to that, we also have Alex Bellis in relation to modelling the modelling exercise as a state it may be Mr. Griffin, who would be the appropriate person to begin the explanation in terms of how we have how we have carried out the assessment or who would come to the conclusion that no, no in relation to the impacts. Thank you. So perhaps Dr. Griffin if you could. So this this. So just to clarify, this is this is in relation to the river as opposed to the because obviously, there's two. There's two issues we're talking about here. There's the issue on the riverbank itself, which is more of an ecological impact, which may be somebody different. Whereas if we're talking just about the impacts on the river itself, then Mr. Griffin spoke with a man

34:43
and thank him So Greig, I believe it might be Mr. Griffin just to clarify on disposition. I am going to concentrate as mentioned initially on the specific bullet points on the geomorphology and hydrology issues. I believe my colleague later Mr. Gleeson will actually ask some further questions on biodiversity and ecology. So, that is whether we are tackling situation at the moment. So, my question is going to be very much in relation to hydrology and geomorphology of the river. So, Mr. Griffin, with something that you could actually explain us further, in terms of how you have arrived to the assessment that you did.

35:25
Good morning, sir. Yes, Ian Griffin represent you cgp for the applicant. So, in the process of our assessment, we have undertaken hydraulic modelling for the baseline scheme and construction in the scheme and operation scenarios. And this is presented in the river kocot hydraulic modelling report which is rep 7006. This ms then informed a further two studies which was the river kocot fluvial geomorphology assessment, which is rep 7003 and the fraud risk assessment addendum, river kocot, row one which is rep 7015. And these these the initial hydraulic modelling was to assess the changes from the baseline scenario and understand how this could impact on the hydrology and the geomorphology of the river coconuts following the proposed changes, so, this has provided us with an understanding of we initially presented the attendance to the EAS and this these studies were to then confirm or or provide further information to qualify the assessment that was made. So, the magnitude of impact was determined to be minor adverse, we are although we are changing the nature of the banks by implementing scour protection scope protection systems both in the north and south bank. The continuity of sediment supply and the continuity of how that is this sediment is passed through the river was felt to be of a minor adverse impact. I think the main point that the agency or the environmental agency are racing on this is the idea that there is a change in the continuity of supply of sediment and a change in the fixing of the river and within the confines due to the new bridge structure. Now, we would argue that the bridge structure that is already there, the existing bridge has to a degree fix the channel in that position. So, I think I think in the context of the gorge which is several kilometres long we are impacting a fairly small proportion of the banks. And that and based on those aspects, I'm sure you can question me more on them that we felt that that was a minor adverse majeure of impact leading to a slight not significant significance of impact or effect.

39:06

Thank you, Dr. Griffin, for that explanation. Could I ask a little bit in similarly to what I have asked previously in terms of any guidelines or any broad assessment in terms of what would be the limits, if there are any, where you would actually consider that the supply of scent of sediments would actually constitute a moderate adverse or major adverse, well any impact that is not minor adverse, which is what you have found. So are there any specific intervals are there any specific information Did you could point Until that would actually change your assessment in terms of the impact.

40:04
And for instance, if we I mean, we're we're This is a bedrock challenge channel and to degree, we are fortunate that it is a bedrock channel, because if this was our gravel bed, for instance, we may have to provide scar protection across the entire bed. This does happen when we look at bridge crossings. I think if if the extent of engineering works had been greater than the the extents that have been required for this particular scope detection system, and extended more significantly upstream and downstream, then that would lead us more towards that moderate impact. So, I mean, it's really the nature the, the extent within the, in the wider context of the reach the which the reach shows, you would define it as the gorge section of the river. And there is still sediment supply to that. I think our assessment criteria are provided within the agenda. And it's a judgement as to to the scale of impact across not just the the banks but also the the channel itself, and we're having relatively limited impacts on the bed itself. And during the operational phase.

41:45
Thank you very much. For that Dr. Griffin an interview mentioned the operational phase in terms of the construction phase

41:53
or the construction phase is temporary in nature up to 16 months and we the nature of the platforms required for construction requires the formation of vertical walls within the channel to support the construction platform. And these take the form of legato block now that does lead and we've been clear on on on the assessment there that that does lead to a constriction in the channel cross sectional area which which has has two effects it causes a backwater effect upstream which reduces velocity and the construction causes our localised increase in velocity through the legato blocks which may lead on under circumstances of high flow to temporary changes in sediment transport. So the more significantly more impactful of the is the construction impacts but due to their short lived nature, they are not considered to be more than minor adverse in nature.

43:18
Thank you Dr. Griffin. One final just very quick question in terms of the period that you have looked at this effect, so you have mentioned then changes in the flow of the river might alter the type in the amount of odd supply of sediments that establish themselves within the river. So when you considered it to be a minor impact, could you actually classify it? Could you actually provide further information in terms of the time frame that you looked at for that because obviously, the longer the situation prolongs the most significant, most significant would be the impact if I'm following it correctly.

44:00

So so the impact during construction is estimated to be 16 months. There, there may be temporary changes in the retention of sediment within the reach, I think would be the point. But following the reinstatement of the proposed scheme works the this with likely the return to relatively normal conditions, they're very minor changes on the margins associated with the roughness and the change in roughness value from a vegetated bank to a rock armour which have led to some minor changes in velocity and depth at the margins. But we would not anticipate that this would have a significant impact on the The nature of the sediment during the construction phase there, the increases in velocity may lead to increased transport. We're not saying that it's going to reduce the sediment being entering into the river is it's going to change the dynamics of that section of of river for that period of time, should we experience significant flow events during that 16 months period. But it's anticipated that once the, the river so what's the permanent works have been installed, the similar conditions would would be in place within the river. And I think the key concern is gravel exposure and that would be retained or there is mitigation in place to ensure that that particular feature is, is given every opportunity to reform as part of the natural exposure that is just downstream of the report swabs.

46:18
Thank you, Dr. Griffin. So you have mentioned 16 months in terms of construction. In in terms of the operation? I think that you have mentioned the gravel exposure now. But is that for a specific timeframe that you looked at that or that would be for the whole lifetime of the proposed bridge? So I'm interested in actually understanding in terms of your assessment, what was the time frame, the tilde looked at in terms of search string.

46:53
So we haven't looked at a series of events because we can't predict a series of events over a timeframe, what we have looked at is a range of flow events from the two year actually looks like a cue, a lower event, but the two year event, up to 200 year events, and the potential change. So it's the two year the 50 year and the 200. year for the geomorphological assessment, we look at a variety of other events for other assessments, and then the Q 50. event, which is looking at events that would happen during a normal year. So our assessment for that lower end event is to say, Well, does this change the biotope within the river, the the general conditions, the general flow conditions that we would experience under normal flows, and then we've assessed a series of more significant flow events, and then looked to see the impacts of those events as a single event. And how that would change from the baseline scenario should those events occur?

48:20
Thank you, Dr. Griffin. And in terms of single event, so have you actually is how have you considered cumulative effects of all of those different events? Or you have not? No,

48:34
we haven't assessed cumulative events. But we've assessed a broad range of events in the 200 year event, the probability of that is, is relatively low within the 18 months, so in 16 months and construction period, that would be a more extreme event, and then compare that with the baseline and what would have happened during the baseline. So it wouldn't be a normal process to then, because we can't, we can't we I think what you're talking about is more more for dynamic assessment where the change in

the bedforms would then feed into yet another assessment in a hydraulic model, and then we would look at that again, within an IRA and that that that's beyond the current assess, but you know, beyond the state of the art for this type of modelling, but we've we've assessed it as per standard guidance and in relation to flood risk as well and the requirements of the design criteria.

49:42
That's, that's very helpful. Thank you, Dr. Griffin. Could I now please ask the Environment Agency to comment on the evidence that we have just received from Dr. Griffin, particularly in terms Have some of the differences that led the environmental agency to believe and make representations stating depth. The effects might be slightly different from those assessed. So Ms Mo if I could actually ask you to comment on this or perhaps introduce a member of your team that will be able to respond to this query, please.

50:28
It's Ms Mo here. I will refer you to my colleague Alistair Laverty. He's a dermatologist. Thank you, Thank you, Ms Mo . Mr. Laverty.

50:41
Good morning, sir. Alastair Laverty here from the Environment Agency. In terms of the scheme and the revised proposals for the scheme within the gorge itself, we had two concerns. One was the supply of sediment, and one was how the river would be able to change over time. And the two updated documents to the the revised your morphological assessment of the impacts and the document on slope connectivity have provided a much greater insight into what the likely impact of the works will be. If it just take the operational phase first. So the operational phase will, as Dr. Griffin said, will result in a narrowing of the channel. And therefore we're likely to see greater employment upstream increased velocity through the working area and continuing marginally downstream, those those greater velocities will will result in more sediment moving through the working reach done during kind of baseline conditions, there is a bar that sits within the working area, we will concern that during the operational or sorry, during the construction phase, this bar would be put at risk. And given the nature of the sediment dynamics in the area. There is a risk that if that bar was displaced during the construction phase, it wouldn't reform because the conditions aren't conducive to the reforming of that feature. Then the assessment has indicated that sentiment within that bar feature is potentially at risk of moving the

52:55
the Sorry to interrupt him. Excuse me, I'm not an expert in this matter. Could you actually explain to me what you mean by buying one to Baris that's not something that I have been overly familiar with.

53:11
So a bar is just a feature made out of sediment, shall we say that is exposed above surface level? So in the terms of the site here, the bar seems to be informed around large boulders, these large boulders protect create reduced flow velocities around them, so they can provide a protective environment that allows finer sediment to be deposited around those. Okay, thank you very much Mir Laverty Yep. Okay. So my concern was the increased flow velocities during the construction phase would lead to those bar features that bar features starting to break down. The original geomorphic assessment didn't cover the

this the nature of the settlement in enough detail. And I my fear or my concerns was that it was under estimating the risk to that feature. The revised geomorphological assessment has updated the sediment analysis, and has indicated that I think up to the size of small boulders are at risk of movement. In terms of that feature, the acknowledgement that it is, there is a potential that that feature could feel is I was gonna say reassuring, but I'm not sure if that's the right word, but to have that acknowledged, but what the applicant has done is that they've put in place mitigation measures, so that in the event that that feature is at risk there, they will map out the key boulders shall we say the key pieces of sediment that are fundamental to holding that structure together, those large boulders or stones will be mapped died. And if there is any change during the construction phase that during the restoration of the site itself, that means that bar will be reformed as best, as best as we can, in terms of the risk. And in terms of the mitigation, I'm happy to accept that there is a risk, I think that risk is unavoidable given the nature of the works and what the applicant needs to do. But I think the mitigation measures that they've put in place are reasonable and and appropriate in terms of managing that risk.

55:50
That's very useful. Thank you very much, Mr. Laverty. In terms of the operation, would you like to comment on that? Yes,

55:59
I joined the operation. So that the area where the bridge is being constructed is in an unusual area in terms of the gorge itself. We'll always feel that fixing a river bank will have a long term impact. And while I acknowledge that the plan forms, basically the kind of the, the line the river takes the shape of the river from VW is fairly stable within the gorge itself. That wildlife stability is there over a long term period that will change. And the the works, the scar protection works are fundamentally fixing the river banks in one position and preventing the river from evolving in the long term. Given that, you know, we have increased flows forecast through climate change, I think it's reasonable suggest that actually, during the lifetime of the scheme, that certainly the northern bank would change its profile on its position. During that time that the left sorry, the northern bio, is a lot softer than the the southern bank and I would expect over a period of time see that that change. And that's why we feel that the impact in the river on the written part on the channel morphology is moderate, because it's a permanent fixing over the lifetime of the scheme. And that the area where the work is being carried out he is is is unusual in the context of the canyon itself or the gorge itself. There's only two other features about nature in the site itself. And we accept that the proposals that the applicant has put forward are probably the only options available, we will grateful for the applicant providers with their options assessment certainly for this loop stability on the northern bank, having looked at the options available, I think, we were in agreement that the preferred option is the most reasonable solution for dealing with this loop Sybil. So therefore, except that bank protection is required, given that bank protection is required, we feel that the impact is moderate. And therefore, we requested compensation from the applicant, the applicant disagree to a package a compensation package that will be take place within the within the corporate catchment. And provided that it that compensation packages is finally signed off, then we're contend that the impact of this game can be kind of compensated and mitigated for

59:03

thank you very much for that Mr. Laverty. That is very useful. And I know that I not the last point that you have made, which obviously coincides with the point that Mr. Greig made early in terms of compensation in agreement on this topic. So thank you very much for confirming that information as well.

59:33
Can I believe probably you'll probably be again Dr. Griffin, I believe but if not please, Mr. Greig do correct me. But can I also asked in terms of the river flow, we have talked about how the river flow will actually affect the type of sediments that will be deposited. In the reserves range within those sentiments, I know that within the evidence and documents that you have submitted, you have mentioned a change range of 30% to 100%, which seems to me in layman's terms to be quite a wide range of different segments. Could you please explain how you have actually come to this conclusion and why such a big range will have the same outcome for the river? So perhaps if I could go to Dr. Griffin. So could I ask that Alex Bellis Please speaks on this matter, please? Certainly. Mr. Bellis

1:00:54
Good morning, sir. Yeah, Alex Bellis. For CJP representing the, the applicant. Um, the reason why we've used that bracket is because in the figures that we produced, we're trying not to effectively make them too confusing with many, many categories. So what we, we opted for with something that roughly represented a log 10 scale of change. So, for instance, you'd have 10, then 30, then 100, then should it be required 300 and 1000. So that's why we chose those brackets. And to tie in with the figures that we produced in the appendix, Appendix C, I believe, of the fluvial geomorphology report. And that's why we've written in those in in those terms. And the, the data that sits behind that is, is obviously, you know, more resolute, it's just that we have chosen those categories to allow a presentation to not be not be over complicated.

1:01:59
Thinking Mr. Bellis apologies, but I'm gonna, I'm gonna pressure you on that point, because I'm still not 100% clear, in terms of I understand that you have picked a specific cloth in a specific interval, between 30 and 100%. In there are some reasons for that. But in terms of the practical outcome, it seems to me the piece to me in layman's terms, and someone that has done is not an expert in this specific issue, that a range of size of sediments between 30% to 100% change is actually quite a huge range. And I am particularly interested in, in understanding how such a range could not have a more significant impact on the geomorphology of the river in the flow of the river.

1:02:55
What what we were aiming to do with those categories was to, to really show that the majority of change was less than less than 10%. And that those areas that exceeded 30%, and 100% were limited in extent, and to really bring those, those those areas out to people's and to people's attention. And we, as I've mentioned, we could have chosen a different range, we could have gone, we could have gone 10 2030 4050. But what that would then mask is then the much larger changes over say we finished at 100% EBIT mask those much larger changes, and really we're trying to highlight those larger changes rather than the incremental ones between between 30 and, and 100%. And the figures could be produced in a different way. And and in geomorphology, what we are often interested in are the

changes in that are concerned with orders of orders of magnitude. And presenting in the way that we've presented allows us to see where there is a step up in an order of magnitude or half an order of magnitude as it were when considering the scale that we that that we use. And because often the change that we can see might not be on a scale of one to 100% it could be one to several 1,000% and that while this draws out it draws out that actually there are that the change that we see is within a certain bracket within a certain order of order of magnitude rather than exceeding that order of magnitude change. As an example, if I can just give as an example. And the the we've looked at the size of sediment in that way that may That may move, the sediment ranges, if we look at sand is to two millimetres up to boulders which exceed which xc 256 millimetres and can be even even larger than that. So that that's, as we can see in there. There's a, there's a there's a very large, large potential range of change. So that's why we have that's that's why we've looked at it in that way and why that we felt in putting together our report was was was appropriate. But if there were specific areas of interest, those scales could be changed in those figures.

1:05:39
Thank you for that. Mr. Bellis. Could I perhaps ask the Environment Agency that perhaps Ms Mo or Mr. Laverty, if you would like to comment on this information? And if you have any concerns regarding the range that has been just explained? By? Well?

1:06:12
Thank you, sir. It sounds lovely to hear from the EAA. From what Mr. Bellis says, either I'm, you know, happy with that. I think I did look behind that. Those categories to the raw details, and it doesn't change. Hi, I see the risks. I think it's more presentational. I think, my one concern was that he was moving the numbers, we're moving between categories that are going from cobble to Boulder. And in geomorphological terms, that's quite a big change in terms of how we kind of view the mobility and the nature of settlement. So that 3200 was there was potential for sediment change class winner, and it was just trying to understand why that, that not that category was used, but I look behind the data behind these numbers anyway. So I'm happy with that. That is explanation.

1:07:18
Okay, so the environmental agencies now satisfied within those categories? That's right. Yeah. Okay. Thank you very much, Mr.Laverty. Just bear with me for one second. I'm just going through my notes very quickly.

1:07:47
Actually, I have one outstanding question to Mr. Stubbs Apologies for the jumping back to this issue. But if I could ask Mr. Stubbs, you have mentioned the impacts when we were asking for in when we were discussing actually how the impact of the changes change to and change three, we're actually included. Within a we're actually assessed included within the environmental assessment statement in how those changes were actually taken into consideration in influence the application. You've mentioned, the assessment based on the magnitude of those changes in the impact on the baseline. Could you please speak a little bit more in terms of debt assessment? And there? Were actually Well, we can find the assessment just relating to the change, please.

1:09:07
Yep. I get Kevin Stubbs from the WSP where it's going to just repeat the last part of the question. And

1:09:16
I'm going to ask one or two questions in terms in terms of this meant so I think it My first question is going to be in terms of the assessment of change to in change three. Could you please point out Mr Stubbs where actually we can find the results of that assessment if mine applied correctly. I think that probably you will be pointing us to the stabilisation works and southern axis works non technical summary. But it

1:09:49
says assessments are carried out reported within the attendance for each each part. So for change to ensure Three to stay bank stabilisation works on the same axis, that is where the the the overall assessment is reported. The final statement or summary of lightly significant effects is included in set out sorry. And by set out the fact the summary is set out in chapter 13 of the agenda. So I'm looking currently at the southern Southern access works assessment. And then there is summarises the likely significant effects for each of the topics where there are potential sniffing effects.

1:10:53
Yes, I believe that we are referring to just for everyone to be able to follow this conversation discussion as well. I believe that we are referring to in please correct me if I am mistaken here, but I think that we are referring to rep 4061062, which is the non technical summary. And fraud stabilisation works bad rep. 4063. In web four, or six, four in all six, five, is that case starts. That sounds correct? Yes. Could you please tell us? Is it possible for you to actually talk us through how the results of that assessment will then fabs and informed development of the proposal? So I could could you repeat that? Sorry, I'm just trying to think. So within the assessment, so I'm looking, for example of environmental sediment and dental fraud, certain access works, not at a technical summary, you list the scope of your assessment. So you list the topics that you have actually assessed changes against. Yes, yes. You provide a series of conclusions against each one of those topics? Yes. Would you be able to provide us with some understanding and talk us through how then those conclusions, how you looked at those conclusions in order to then inform the overall development proposal in terms of

1:12:48
so so as chemisorption MSP so we're talking about really how I think about the iterator iteration of the assessments. And so we carry out an initial assessment, look at what the potential effects are, look at the scheme and then understand, can we mitigate those effects and then apply mitigation before giving a final assessment of the potential effects of this particular change? With that mitigation, so there is an iterative process, if you like in terms of understanding what the effects of this change might be, and then developing that to come up with a mitigation that's that's then reported and taken forward as as the scheme. So this is why we've developed various bits of mitigation over time changed the proposals we've put forward as they developed through through the process. And so for example, the the scab protection we proposed initially was rock armour for the whole length under the bridge, whereas we've developed that now to provide I forget the term now, but grey green areas, as well as rock armour. So there's developments in the mitigation, we've proposed to reduce the effects where we can.

1:14:12
Thank you, Mr.Stubbs, that, would you be able to, or perhaps if you don't have this information at your fingertips at moment, perhaps we can also have an action in terms of this information being submitted in writing, but Odoo bright, would you be able to provide us a brief overview in terms of the risk, the results of the assessment that actually led to changes in the proposal you'll have given

1:14:41
now Yeah, example. So I think that's probably Yeah, that's probably the main one, I think in terms of the way that schemes developed is the changes in the the scab protection because that was that was a key issue raised by the Environment Agency, and Natural England. Obviously, part of the proposal is looking at the word buy, we've changed the access and put the bridge across proposed bridge across temporary access to get to the southern bank and that reduces effects potentially on the on the southern access in terms of having to digger rather large entrance area to access that the southern Southern bank. So I think the main the main issue really in terms of the way the schemes developed or this particular part of the scheme developed and that is around the scar protection, both on the north and south bank and try to minimise the impact of that on the long term. nature of the river.

1:15:47
Thank you. Thank you very much, Mr.Stubbs. I believe that under this bullet point, these are the only questions that I actually want to ask. So in relation to the proposed impacts of change to win three, particularly on geomorphology and hydrology. I am going to now also hand over to Mr. Gleeson to actually ask some further questions in terms of changes to wind three on biodiversity ecology, international environment. But can I just ask as well, Mr. Gleeson, if there are any outstanding questions that you might have, under this bullet point, I feel happy to move on to the next bullet point. Mr. Gleeson

1:16:37
Okay, Mr. Pinto. Now, I'm happy that you've covered bullet point one. So I'll move on to bullet point two. Thank you, Mr. Gleeson. Okay, so the point to the effects of the proposed changes on biodiversity. So I think I'd like to start with the written question resubmitted at q4, which was questioned bio 4.1. pointing out that the Environment Agency natural England's both stated that proposed changes the application would result in loss of natural riverbank habitats, and therefore there was a need for compensatory habitats to be provided to offset the damage and loss to the river coconuts and the triple si. So what I'm looking for, first of all, is an indication from the applicant about the magnitude of impact of the propose that the proposed changes would have on bio diversity, recognising that natural England's I think the Environment Agency disagreed with the applicants determination of the nature and scale of impact, then I will, I will come on, obviously, to the Environment Agency comments on that. So Mr. Greig, can I start with you first with the magnitude of impact before we look at compensation?

1:18:13
Well, yes, sir. As you say, there is a difference in opinion, I'll be at the booth. All parties agree it's a significant impact. It's just a question of whether there's a moderate significant impact or a major significant impact. And again, obviously pmtu next point about compensation. But it is also agreed that

with the compensation in place, whatever the railroad impact, that compensation is required, and the compensation, which has been agreed is sufficient to offset that impact. So the issue between the parties, as I understand it's resolved?

1:18:48
Well, it's resolved both in terms of compensation, the need for compensation, but not in terms of the scale of impact. There's no instant.

1:18:57
Yeah, that's understood. So my point is simply whatever, whatever, whatever the scale of impact is, it's still a significant enterprise. So you know, there's a need for compensation and that that compensation is agreed. So that's why I'm saying I'll be there's that there's a difference in emphasis on degree of impact the issue as a whole because we agreed it's significant in any event and needs to be compensated for and because that compensation is agreed that's why I'm suggesting the point resolved. Probably best thing for Jack Fenwick perhaps to deal with your more detail question in relation to the position relation, the degree of impact and why we why we think it's moderate as opposed to major.

1:19:45
Thank you, Jack Fenwick DSP on behalf the applicant. So yeah, within biodiversity when looking at kind of impacts to ecology, ecological receptors, we first look at the importance of the receptor, and that's based on its designation. There's various other factors that we can have a look out with that, in this context, the river, and its banks are a triple si is a site of special scientific interest, and also qualify as a habitat and principal importance. So HPI. So triple si is, is of national importance. And that's acknowledged within the assessment when looking at kind of strict and I think we explained this within the environmental statement agenda, and that in strict accordance with the dmrb guidance, so the design manual for roads and bridges guidance, and impact or to a reception of national importance could be considered a very large adverse, and but we also consider all the factors within that. And equally as you would to something that of local importance, it could have a significant impact that have greater than local importance. And so in looking at that, we've looked at what the triple si is, is designated for. So that being its habitats, but also the species that it supports. And particularly for the triple si and the the unit of the triple si that might be impacted for the scheme, and the habitats of both the river and the woodland along its banks. And the species include things like it's concrete, again, very invertebrates, its fish populations, and other species that it supports. So when considering the the impact of the bank stabilisation, which obviously constitutes roughly along the impacted length, around about two thirds of that would be rock karma. A third would be kind of a green grey a softer solution. And it's a relatively short length of bank that's impacted in comparison to both the wider triple SI unit and the wider triple si itself. And then we also considered the impacts from the other assessments that were undertaken. So for example, the geomorphology assessment, which did identify a slight adverse impact, overall, that was considered particularly given the extent of the impact there, it was considered that a very large adverse effect was was unlikely to occur. And it would still remain a significant impact. And we're definitely in agreement with the environmental agency natural Glinda that, but it was believed that it would not meet to kind of a large or very large adverse effect and a moderate adverse effect was considered an appropriate and classification.

1:22:15
So in the absence of natural England's today, can you explain why they thought that the impact was greater?

1:22:24
So I believe natural Englands view in their relevant representation. Their consideration was that it was greater that technology to detect a permanent change, which is also acknowledged by the applicant. But I think natural England view that it was greater was based on the consideration that in their view, the river korkut is generally a pristine river with very little manmade or kind of manmade modifications. And I know the the particularly from the geomorphology assessment undertaken by the applicant, there is disagreement there, I believe the applicant considers that the river is slightly more modified than then is necessarily stated by natural glint in their representation, which is again informed our assessment of the level and the scale of impact. And then so yeah, natural England's was more down to the view of the the current condition of the river and the fact that this would be a permanent change to what they consider as a pristine River.

1:23:26
Okay, thank you. Thank you, Mr. Fenwick. Can I ask the Environment Agency if they wish to comment on this before we move on to the question of compensation? Ms Mo

1:23:42
hi, Lucy Mo here from the EAA. We have no comments to make on that matter.

1:23:46
Okay, that's fine. Thank you. So then, briefly, can I just get back to Mr. Greig, and the issue of compensation then. So you've, you've provided a very full explanation at Rep. Eight, a blow six, which was your response to question bio 4.1. So that explains why compensation couldn't be provided in close proximity the site in the wider areas of the river and why it had been agreed with natural England that financial contribution would be provided. You've said that that agreements is virtually complete now. Will that agreement be complete before the end of the examination? And how should the examining authority deal with that will be provided with a copy or confirmation will be dealt with through standard common grounds? What's the mechanism going forward?

1:24:58
Well, I think it was an oceanographer. First question. Yes, recently Do you anticipate will be signed? Before the examination is complete, as I say that the terms are agreed between between us, we're just waiting just to get the confirmation from from natural England that they are also contained just in case they have any last last tweaks they want to make. But once that's in place, it will be ready for signing so that there's not there's any issue in terms of having that in place. In terms of the mechanism, I suppose we'd revisit I suppose that it will be it will be dealt with through the statement of common ground and the setting a common position of the parties? I suppose it depends. So what level of detail you wish to have, on the terms of what's been agreed? Because obviously, we I suppose we've been speaking about it and in fairly general terms to date. So it occurs to me that you may want a bit more detail in

terms of how we operate, and particularly what the what the degree of what types of projects that you would be using the compensation for services, so you can satisfy yourself that yes, that does that does be the need for compensation has been identified.

1:26:25
Yes, I think I think the examining authority needs a copy of the agreement itself. But I think a summary more than a one liner, yes. Statements of common ground, I think we'd like to understand what it covers why why it is addressing these matters, where there was disagreements between parties, and maybe trigger points and what what the monies would be used for? Well, we

1:26:53
can, yeah, we can either deal with it as a standalone submission. If that would be helpful, which obviously can be cross refer to and this is a common ground, that may be the best way of dealing with it. So you've then got a clear statement of what this involves. I think

1:27:07
that would be helpful. Thank you. And the agreements itself would just be between yourselves and natural England, he wouldn't involve the Environment Agency.

1:27:15
No other way other way around, sir. agreements with Environment Agency, not natural England, it's just that they were consulted on it, because obviously, they've read representations on the same issues.

1:27:27
So what's natural England also raise the concerns. So would they would it be dealt with through this thing's common ground as well?

1:27:38
Yes, it would be. Yeah, I think that's how it would work. So we have the two statements of Common Ground summarising the position, referring in turn to a standalone statement, perhaps which which said, so the nature of the economy, the agreement and add a bit more detail. So you've got that there.

1:27:56
So again, just like to tie things up, if we need to get to the stage where we can be sure that all three parties are signed up to the same issue. That can be confirmed, that would be helpful.

1:28:12
Yes, we met we I'm hoping we'll be there for for the for Bob will be today's deadline, obviously.

1:28:22
Okay, now that that sounds helpful. Okay. Let me just see something further than on pilots diversity. Now, I think that's covers all I had to raise on biodiversity. So then we're on to the third bullet points.

1:28:57

Sorry, sir. Mr. Grieg is just to confirm, obviously, we, natural England were provided previously, with an earlier draft of the agreement we got we had that one common and it's been addressed. So we're anticipating that that agreement we have will be acceptable to just disappear television.

1:29:13
Thank you. So saying we're now onto the third bullet points for item two. I think it's just 1130. Although that third bullet point shouldn't take too much time. Let's take a break now. We will break until 12 o'clock. So I think the next session will be fairly full session as well. So now at 1130 we'll adjourn the hearing until 12 o'clock. Thank you very much.