From:	Connie Davies
To:	Rampion2
Subject:	Written Representation
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Attachments:	Water and Flooding at the proposed substation site at Oakendene.pdf

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Dear Madam or Sir,

I hope that you're well.

I am trying to upload a written representation, however the system is down. Please find attached my written representation.

Thank you for your consideration.

Best wishes,

Connie Davies

Water and Flooding at the proposed substation site at Oakendene.

Summary

This document is addressed to WSCC as Local Lead Flood authority. Please note that HDC was only invited to meetings regarding the proposed substation at Oakendene in June 2022, a month before the public announcement, and five months before the consultation closed. There appears to be limited research, based on desk top studies and an inaccurate interpretation of the Environmental Agency flood maps. Moreover, the research relies on inaccurate historical information regarding flooding at Oakendene from surface water, ground water and ordinary watercourses. There seems to be no flood risk assessments or modelling to account for the proposed piling or construction or an evaluation of their consequences for the local residents or communities downstream. Each item will be discussed in detail within this document.

The following documents have been assessed: 6.2.26, 6.4.26.4, 6.4.26.2, 6.3.26(1), 6.2.26(2), 6.4.26.1, 6.4.26.3. Oakendene was not included in the hydrogeological risk assessment or the floodrisk assessment for pluvial or fluvial floodplains, and there appears to have been no soil samples or geology tests conducted on the Oakendene site. The application frequently refers to EN-1 and relevant local authority plans and policies, but has largely ignored these guidelines and principals in its application. The Environmental Agency flood maps relating to the two sites appear to have been misinterpreted by Rampion and flooding risks downplayed at Oakendene.

Inadequate investigation of Oakendene site, prior to decision being announced.
There is no evidence to suggest that there was a thorough investigation of the two alternative sites, in terms of traffic impact, flooding/geology or environmental/ecology. Looking at the minutes of meetings, HDC only became aware that Oakendene had been proposed in June 2022, and Rampion announced their decision in July 2022. However, there was no environmental/ecological studies, geological or traffic surveys/modelling for this site. It was clear from a public meeting held with Rampion in Cowfold, one month before the end of the consultation process in November 2022, that Rampion were not aware that Oakendene had suffered from surface water flooding, nor that Kent St was a single- track lane, assessed as “inappropriate” in their Woods report, nor that a High voltage cable lay under the proposed site.

Fundamental Flaws to assumption being made:
Reading through the minutes of the meetings of 1.4.22 found in document 6.4.26.2, on p174, it’s clear that there was an underlying assumption that Rampion 2 would be located on Wineham Lane, because participants were “trying to learn lessons from Rampion 1” and Oakendene had not been included in assessments. However, this assumption is not appropriate for Oakendene as there are significant differences between the two proposed substation sites. Rampion 2 is 30% bigger, with the entrance to the site directly off the fast moving, busy A272, which caters for over 18000 vehicles daily. Whereas Rampion 1 was located off the relatively quiet Wineham Lane, which is often used by HGV’s because it is wider and has two lanes. Oakendene is also on a floodplain which has been designated as an area of “high flood risk” according to the Environmental Agency maps. Properties nearby have flooded badly and residents regularly ask the council to clear ditches and pipes in order to reduce their risk of flooding.

Why did Rampion choose a floodplain when a perfectly good alternative site, at Wineham Lane, was available?

1 The EN-1 planning guidelines encourage developers to avoid essential infrastructure from being built on vulnerable land, such as floodplains, just in case they suffer outages or loss of power due to frequent flooding. Such outages would affect wide areas of the South East, during the worst weather conditions.

Why has Rampion chosen such a vulnerable site, when a perfectly good alternative site is available at Wineham Lane North?

During the meeting on 9.11.2020 in 6.4.26.2 page 159, point 15- Oakendene was not even discussed as a substation site, therefore it was not included in the "Flood risk assessment in the fluvial or pluvial floodplains". Neither was it included in terms of floodplain storage loss and the impact of increased flooding for the neighbours and those living downstream was not assessed.

The meeting on 22.3.22 demonstrates that the underlying assumption was that the substation would be built at Wineham Lane, since there were no discussions about Oakenene and there was no representation from HDC, which would cover that area. During this meeting, RC (from Woods Gp) stated in points 4 & 5, that "the loss of fluvial floodplain storage… would increase the water levels elsewhere". There was also a discussion (in point 7) about the problems of Natural England objecting to moving floodplain soil away from site. TL from the EA made some excellent points regarding the need for additional information, when considering floodplains, however the discussion did not extend to, or cover Oakendene, or whether a receptor should be located nearby. The point about soil removal, it is highly likely to be necessary at Oakendene as new hardstanding and tracks will need to be installed, but this item does not appear to have been examined.

During the meeting on 22.6.22 between WSCC, HDC, MSCC and Woods Gp, the following statement was made by MB (from HDC)
"MB advised that as long as the substation was positioned outside the 0.1% AEP surface water flood extent, he would not be concerned. MB advised that HDC records of historical flooding indicated that no flood incidents at Bolney Rd or Kent St had been recorded." (According to neighbours, there have been a number of flood incidents for local residents and HDC is called out on a regular basis to deal with flooding issues).

According to the Environmental Agency flood maps, it would appear that Oakendene suffers from both 0.1% and above 3.3% AEP, thus classifying it as "at high risk of surface flooding". Having walked across these fields in November and May, these maps are possibly out of date because the flooding is far more extensive and widespread, with many areas being permanently submerged during the winter months, due to the impermeable wealden clay. Please let us know if you would like photos showing 4-6" of water flooding these meadows. Please refer to the maps on p199 (6.4.26.2)showing the extensive flooding at Oakendene, and p198 comparing Oakendene with Wineham Lane, which has no such flooding issues. The Oakendene meadows have a number of watercourses running through the land, as well as the 7km Cowfold Stream, and several lakes.

These maps obviously take no account of the pilings, or the displacement of water as a result of the concrete base/foundations. The displacement of water is expected to be significant and will thus increase the risk of flooding of neighbouring properties and also affect those communities downstream. No analysis or modelling has been completed for the consequences of construction on the alternative proposed sites.

Surface water flooding is a real concern for several local residents at neighbouring properties close to Oakendene. One household had to move out for an entire year, due to the extensive flood damage. A number of residents frequently contact HDC to clear the ditches, re bore holes and clear pipes that run under A272, in order to avoid more flooding. This is a very real concern to a number of residents in the vicinity of Oakendene. The

situation is only likely to get considerably worse if hardstanding and piling is installed at the site.

According to the Environmental Agency, the properties within the same Oakendene post code, which are currently at "high risk" of surface water flooding according to Gov analysis, are: Coopers Cottage, Cass Joinery at unit C11, Oakendene Estates office, South Lodge on Bolney Rd and the Coach House. Properties that are currently at "medium risk" are: Ashurst Cottage, and the following businesses Ultimate Autos at C7, Holders Tree Services and the Two units at C1-C2. There may be more properties at risk, however this was the only postcode that was checked.

Legislation and good practice

NPS EN=1 paragraph 5.7.5 identifies a variety of minimum requirements for Flood Risk Assessments (FRA's). These do not appear to have been completed for both sites. Paragraph 5.7.7 states that "Applicants for projects which may be affected by, or may add to, flood risk should arrange preapplication discussions with the EA, and, where relevant, other bodies such as Internal Drainage Boards, sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators. Such discussions should identify the likelihood and possible extent and nature of the flood risk, help scope the FRAs, and identify the information that will be required by the IPC (I [now the Planning Inspectorate] to reach a decision on the application when it is submitted."

According to 6.2.26 Table 2-1 on p26
Legislation Relevance to protection of groundwater Overarching National Policy Statement (NPS) for Energy EN-1 Department of Energy and Climate Change (DECC) (2011) EN-1 states that "Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent".

No such studies appear to have been completed for the Oakendene or Wineham Lane sites. If they have been completed and comparisons made, please may we see copies of the results.

Questions:

1 What type of screening/analysis has been completed for the two proposed substation sites? Have they included soil analysis, flowpath screening/analysis, contour polygon screening, assessment of pluvial threats, fluvial and pluvial flood hazard assessments, EA flood maps updated, potential depth of inundation, site characteristics, such as existing drainage and topographic data? Accurate analysis of local historical flooding at the proposed sites?. Comparison of the Flood study modelling for the two sites?

2 How deep are the pilings expected to be for the Oakendene sub station? What are the impacts /consequences of dewatering and drilling activities on ground water levels for deeper excavations? (1.2.10 p9, 6.4.26.4)

3 6.4.26.1- p62 the Cowfold stream has been “screened out”. Should this be screened in? and included in the analysis since it is located on the proposed substation site at Oakendene.

i) If pilings and concrete are poured as the foundation for the sub station, what consequential affects will it have on the surface water? and on the Properties that are currently categorised as at “high risk” of surface water flooding?

ii) What will be the affect on properties downstream, along the River Adur?

4 According to 6.4.26.2 section 5.3.10 There is an area of isolated high risk 3.33%AEP. According to minutes on 22.6.2022, This area has only been assessed using historic aerial imagery and no soil analysis. Would it be possible to arrange a detailed site investigation during the winter months from November to April? Furthermore, Rampion state that “the underlying topography used within the RoFSW modelling pre-dates this development and does not provide an up to date overview of surface water flood risk at the site.” Therefore, an up to date survey is requested.

5 According to 5.3.15 “the development have the potential to increase the overall extend of lower permeability surfaces within the proposed DCO Order Limits. These are associated with the development of permanent hardstanding at the onshore substation at Oakendene. <u>This could lead to an increase in peak runoff rates (and volumes) and a consequent increase in flood risk for downstream receptors.”</u> Rampion were obviously aware of this increased flood risk. Please can this be investigated thoroughly using up to date information including modelling and soil samples. Rampion mention the need for suitable drainage strategies, for both surface run-off and surface run-on, but have not detailed them.

6 On p88, note 6.4.5 Loss of floodplain storage. Rampion state that “the creation of temporary raised structures in fluvial floodplain during construction works, such as raised stone haul roads and associated stockpiles of topsoil, could lead to a loss of floodplain storage and thus increase water levels elsewhere”. Would this lead to flooding downstream? There were meetings held on 9.11.2020 & 22.3.22 (see 6.4.26.2, minutes in Annex A, agenda item 15 & 7) where these items were mentioned, however Oakendene was not discussed or evaluated with regard to flooding at that time or since.

7 On p89 there is a note on “excess soil and floodplain volume”. The simple rule will be that for each tipper truck bringing material into the floodplain, to create the haul road, it should leave the floodplain with the equivalent load of soil, that no truck should leave empty.

Where will this floodplain soil go? Will this increase the environmental damage and the carbon footprint? “Due to the potentially soft ground conditions in the floodplain, whilst the use of trackway would be preferred overall, it is possible that trackway would still require stone based footing”. How many additional HGV’s would this involve?

8 According to 6.4.20 as shown in figure 26.2.5a-e, Annex B, “the mapping indicates that the north eastern section of the proposed DCO Order limits is traversed by a number of surface runoff pathways and minor watercourse draining into the River Arun and Cowfold stream. Regions of high risk are also

mapped intersecting the construction compounds at Washington and the Oakendene substation". Please refer to the EA flood maps showing the surface water flooding at Oakendene and compare it against the negligible risk at Wineham Lane (found in document 6.4.26.2 pages 198 & 199).
How could these two sites be considered comparable in terms of surface water flooding risk? On p198 & p199 Figure 26.2.5e clearly shows Oakendene has a high risk of surface water flooding, with areas over 3.33%AEP, whereas Wineham Lane has minimal risk.

9 In item 6.4.26, Oakendene has not been listed as a third party receptor- should the Oakendene site/Cowfold stream be listed as a receptor?

10 Questions to WSCC and HDC – have they completed a thorough investigation of the two alternative substation sites? In accordance with the guidelines provided in EN-1? Including soil analysis, extent of surface water flooding, flood maps. Have they completed a site inspection of Oakendene and Wineham Lane North after a period of sustained rainfall? The difference in drainage between the two sites is significant. Oakendene suffers from substantial surface water flooding, while the soil at Wineham Lane drains incredibly well, with no evidence of heavy rainfall. We have photos of both sites taken in November to show significant and obvious differences between the two sites. Please let us know if these would be helpful.

11 Will the substation be positioned outside the 0.1%AEP surface water flood zone? As directed by MB from HDC

12 Point 6.4.31 on p93, relating to dewatering of excavations. How is it possible to ensure that such excavation works and piling will not result in an increase in flood risk downstream?

13 On p131, item 9.1.36, the two potential onshore substation sites were compared. Apparently "the Wineham Lane North onshore substation search area was identified to be marginally preferable from a flood risk sequential approach perspective on the basis of approximately 97 percent of the onshore search area being at low or very low risk of surface water flooding". Who carried out this analysis and formed these inaccurate conclusions? This statement appears to be incorrect given the EA flood maps and evident flooding of Oakendene, whilst Wineham Lane remained unaffected, during November, December and January. We have yet to assess February and March.

14 On p131, a reason for not choosing Wineham Lane North was that according to point 9.1.35 " As a result of non-statutory consultation feedback and the proximity to sensitive receptors (ancient woodland and a listed building), Wineham Lane South onshore substation search area was removed from the PEIR Assessment Boundary.". Oakendene, also has two listed buildings in close proximity and also Tainfield ancient woods, but was included in the PEIR Assessment Boundary..

15 On p132- What were the "other technical and engineering constraints" at Wineham Lane North? Were they impossible to overcome ? Given that the alternative was a floodplain at Oakendene.

16 The EN-1 planning guidelines encourage developers to avoid essential infrastructure from being built on vulnerable land, such as floodplains, just in case they suffer outages or loss of power due to frequent flooding. Why has

Rampion chosen such a vulnerable site, when a perfectly good alternative site is available at Wineham Lane North?

On p16 Policy W DM3 (ADC, 2018): SuDS sets out the requirement to identify opportunities in the early stage of the design process of a development to incorporate a range of SuDS to increase the levels of water capture and storage and improve water quality. The question is, why go to all this trouble and expose increased unnecessary risks, when an alternative site is available?

17 On p17 of 6.2.26, Rampion state that "In addition, floodplains (Flood Zone 3b) should be avoided and development is only acceptable in Flood Zones 2 and 3 following completion of tests, such as those within the recommendations set out in the Horsham District SFRA (HDC, 2010). The policy also states that proposals will require a site-specific FRA for all developments over 1 hectare in Flood Zone 1 and all proposals in Flood Zones 2 and 3." My question is have WSCC & HDC seen the results of these extensive tests for the comparable sites?

18 P17-18. Mid Sussex District Plan (2014-2031) (Adopted March 2018) (MSDC, 2018) Policy DP41 (MSDC, 2018): Flood Risk and Drainage sets out how development proposals will be considered within areas at risk of flooding. The objective is to promote development that makes the best use of resources and increases the sustainability of communities and their ability to adapt to climate change.

Rampions response is "Development proposals in areas at risk of flooding should be supported by site-specific flood risk assessments."

The Question is, has MSDC and HDC seen the site specific flood risk assessments? and if so, please may we have a copy.

19 on p18, Rampion state: Particular attention will be paid to those areas that have experienced flooding in the past and proposals for development should seek to reduce the risk of flooding by achieving a reduction from existing run-off rates. The policy also states that the preferred hierarchy of managing surface water drainage from any development is:

1. Infiltration measures;
2. Attenuation and discharge to watercourses; and, if these cannot be met; and
3. Discharge to surface water-only sewers.

Land that is considered to be required for current and future flood management will be safeguarded from development and proposals will have regard to relevant flood risk plans and strategies. The reader is then re directed to 6.4.26.2, which doesn't answer the question.

My question is, are WSCC and HDC satisfied with the assessments and the limited information provided by Rampion. Please may we have a copy of the soil surveys, geological surveys, incorporating the EA surface water flood maps and details of Rampion's proposals for mitigating these problems.

20 Are WSCC and HDC and MSC satisfied that sufficient analysis has been completed on the effects of pollution or risks to the water course through the construction activities? Rampion 1 suffered a diesel spillage, which they tried to ignore until local residents alerted the Environmental Agency. If such an event were to occur at Oakendene, the situation would be significantly worse given the extensive water courses and vicinity to the Cowfold Stream, which feeds the River Adur.

21 On p19 Policy SD50 (SDNPA, 2019): Sustainable Drainage Systems sets out how flood risk management opportunities should be sought to reduce the overall level of floor risk.
Rampions response:
This policy states "that development proposals will be permitted where they ensure that there is no net increase in surface water run-off, taking account of climate change".
The question is: Are WSCC, HDC and MSC satisfied that Rampion can achieve the above statement regarding Oakendene? If so, what evidence/modelling has been completed?

22 On p32 de watering consequences have been mentioned as a result of excavations. Is there any evidence to suggest that an assessment has been completed at Oakendene?

23 Has there been a site visit from the Environmental Agency during the winter months to examine Oakendene and the Cowfold Stream, as a tributary of the River Adur? When was the flood map last updated?

24 Asked about details of their proposals, Rampion state" Engagement will continue during the post-DCO consent, detailed design stage for the preparation of Environmental Permit and FRAP applications. RED will commence that process in advance of construction works". Would it not be better to examine the proposals prior to granting permission?

25 P55 MSDC. "No significant effects have been identified in the PEIR but the Water Environment submissions and Flood Risk Assessment that will be compiled when the substation location is finalised to then form part of the DCO application will need to be fully assessed (by) Mid Sussex."

Rampions response: Noted, no further action required. The onshore substation location is now outside of the jurisdiction of MSDC. Therefore, MSDC has deferred to HDC in relation to matters pertaining to onshore substation drainage, as noted in Section 26.3.

26 In section 2.44 WSCC listed a number of areas of concern and for different locations, but did not mention Oakendene. Has Oakendene been included in this analysis?

27 On p60 Polling Parish Council were given reassurances about no surface water flooding at Polling. No such reassurances were given to Cowfold parish council regarding the residents adjacent to Oakendene or to the surrounding businesses and homes that could be directly affected.

28 P106- Changes in Land use from agricultural land to industrial sites could cause changes in the hydrological, hydrogeological and geological conditions.

P108 regarding the onshore substation site up to 6 hectares (ha) onshore Oakendene substation with associated structures and infrastructure and up to 2.5ha additional temporary works area;
duration of construction: up to 3 years; and
the maximum potential for displacement of near-surface groundwater has been associated with piling construction techniques.
What are the consequences for local people and communities downstream, regarding "maximum potential for displacement of near-surface ground water"?

29 On p124, C-117 Rampion state "Works on areas identified as floodplain (Flood Zones 2 and 3) will be programmed to avoid the period between October and February inclusive to avoid disturbance of waterbirds, and where possible, will be programmed to occur in late summer/ early autumn, to avoid interaction with PEIR Outline CoCP"
How likely is it that Rampion will avoid the winter months when building the substation? What effect will it have on the timing of the program?

30 P128. C-129 Temporary construction compounds will be surfaced with semi-permeable aggregate material (similar to access roads as per C-120) where practical, with the exception of fuel storage areas and similar where pollution containment in the event of a spillage is the priority. Areas of temporary construction compounds that are used for fuel storage, plant maintenance and refuelling will be surfaced with fully impermeable materials to prevent any infiltration of contaminated runoff and contain bunding in line with C-8 and C167. PEIR Outline CoCP (Document Reference: 7.2) and DCO requirement. This measure will help minimise changes to flow rates / pathways, and the potential for accidental contamination entering watercourses or groundwater. How will this be managed on the Oakendene floodplain?

31 P130. C-134 During construction, dewatering activities (of excavations) will be halted if a flood alert or flood warning is in place downstream, in order to minimise any impacts on flood flow conveyance and to maintain access for watercourse maintenance. PEIR Outline CoCP (Document Reference: 7.2) and DCO requirement. This measure will help minimise any impacts on watercourse conveyance. What safety measures have been put in place?

32 On p183, there appears to be no mention of Oakendene as a receptor, why is that?

33 Decommissioning. This phase is expected to take four years. Who will be responsible for paying for it? Is there a sinking fund already set up by Rampion?

Inaccurate/Misleading statements:

1 Appendix 26.1. 6.4.25.1 on p22, there is reference to the Cowfold stream, "stream is intersected by the proposed DCO order limits within the north-eastern section of the onshore temporary construction corridor near Cowfold". This description is inaccurate, since it is the proposed substation site at Oakendene and so it is more relevant and significant needing more attention.

2 On p62 of 6.4.26.1- 10/41/323101 described as "tributary of Cowfold Stream". This has been screened "out" of the analysis. As it is in the proposed DCO order limits, should it be included and not screened out?

3 On p86, Rampion have stated that there is minimal risk of surface water flooding, however having visited the site and that of Wineham Lane, this statement appears to be inaccurate or out of date. Please see attached file of photographs. Also please refer to the EA flood map and also records of local residents suffering from surface water flooding.

4 In document 6.4.26.2 on A28 on p180, the minutes of meeting 22.6.22 WSCC drainage and flood team and HDC (MB) drainage engineer (first meeting for HDC about the substation at Oakendene).

5 " RC (wood Gp) advised that a decision on selection for the substation site from the 2 x option sites presented at PEIR was imminent". Therefore up until that June 2022, neither council had made enquiries or conducted any investigation relating to Oakendene. Mid Sussex CC had discussed Wineham Lane on previous occasions. There appears to have been an underlying assumption that the substation would be located at Wineham Lane.

6 It was also noted that there were no flooding issues at Rampion 1 and so this shouldn't be an issue with Rampion 2

"KM (from WSCC) noted that on Rampion 1 overall there were no flooding issues from a construction perspective that he was aware of, as temporary arrangements were dealt with by the contractor and that it didn't give West Sussex County Council major concerns."

The major problem with this statement and assumption, is that the soil composition, geology and drainage of the two sites are completely different and that different methods of drainage will need to be employed. On visiting the two site in November and May, Oakendene had standing water and was flooded, whilst Wineham Lane sites had drained very well, with no puddles, or standing water.

7 A great deal of control is handed to the contractor and considering they hadn't previously built a substation on a floodplain, this decision may be unwise. The minutes record

" KM noted that on Rampion 1 overall there were no flooding issues from a construction perspective that he was aware of, as temporary arrangements were dealt with by the contractor and that it didn't give West Sussex County Council major concerns."

There were no flooding issues with Rampion 1, because the land drains well and is not a flood plain.

8 "RC advised that the intent is to retain flexibility for the contractor to decide based on site-specific locations and requirements. RC also noted that land drainage requirements would be addressed postconstruction".

9 Surface water flooding- discussed at the meeting on 1.4.22 There was no one representative from HDC at this meeting, since Oakendene had not been identified as the potential substation site at that time.

There have been a number of recorded surface water flooding incidents from nearby properties. The statement by MB appears to be incorrect with this regard.

10 " RC (from Wood Gp) talked through the Risk of Flooding from Surface Water (RoSWF) maps to identify potential sources of flood risk. The flood risk from the southern watercourse which is a tributary of the Cowfold stream was discussed.

11 RC asked for feedback on this approach.

12 MB advised that as long as the substation was positioned outside the 0.1% AEP surface water flood extent, he would not be concerned. MB advised that HDC records of historical flooding indicated that no flood incidents at Bolney Rd or Kent St had been recorded." This final sentence is incorrect, since neighbouring properties have experienced surface water flooding and the council has been called out to clear the ditches and pipes. <u>Please refer to maps on p199, these clearly show that there are extensive areas where water is well in excess of .01% AEP, infact it is over 3.33% and at high risk of surface water flooding.</u>

It's interesting to note that the design will be submitted after permission is granted, which seems illogical. "The operational drainage strategy will talk about these types of things which the Contractor will decide where to put within the footprint. The design will come once the consent has been granted. MB agreed with this type of approach and advised that a 2 stage approach would be more than sufficient."

Please refer to maps on p198 & 199 showing the extensive surface water related to Oakendene and no such issues at Wineham Lane.

On p169 of 6.4.26.2 during a meeting on 22.3.22 TL (from the EA) made some very useful observations and recommendations:"

TL advised that evidence to prove that the approach proposed would not impact the existing flood storage situation would be required.
RC asked TL for further clarification on what this evidence might look like. Also highlighting that the approach proposed intends to demonstrate that, by design, no impacts would occur and thus no modelling or calculations would be required (as there would be no loss to calculate).
TL requested that information be compiled to provide a visual representation and that this should cover the following: • how the floodplain could be amended; • where the topsoil strip would happen; • where would the volume go; and • where would it be moved to would inform his advice/position. TL outlined that the amount of evidence required would likely be dependent on the floodplains in question and surrounding receptors, so this would need to be considered.
TL would consult colleagues to get further steer on any evidence requirements, and any shared experiences from the Rampion 1 project for instance."

13 during the construction of Rampion 1, there was apparently no flooding and these drainage decisions were left to the contractor. They gave the impression that as a consequence of no flooding problems with Rampion 1, that Rampion 2 should not flood either and that these decisions should be left with the contractor. However, these are two very different sites. Oakendene is a flood plain which suffers from regular surface water flooding, whilst Wineham Lane soil drains very well.

14 P132 section 9.1.38 This statement is incorrect, given the maps and evident flooding at Oakendene and none at Wineham Lane. "The final selection of the Oakendene onshore substation (*at marginally higher surface water flood risk than the Wineham Lane North substation search area option*) has therefore been driven by other technical and engineering constraints. However, the onshore substation site is situated in Flood Zone 1 and considered to be at a comparable level of surface water flood risk, with the incorporation of suitable flood risk management and drainage measures as outlined in Section 8, and is thus concluded to have been determined appropriately via a sequential approach." Assessing the surface water flood maps on p23 Figure 26.8, it is clear that the Oakendene site suffers from surface water flooding, whilst Wineham Lane does not.

15 On p17, Policy 38 HDC, 2015): Flooding Development sets out measures that proposals will follow with respect to flood risk management.

Rampion response:
The policy states that priority will be given to development sites with the lowest risk of flooding and making required development safe without increasing flood risk elsewhere.

The selection of Oakendene seems to contradict Rampion's response.

17 On p131, item 9.1.36, the two potential onshore substation sites were compared. Apparently "the Wineham Lane North onshore substation search area was identified to be marginally preferable from a flood risk sequential approach perspective on the basis of approximately 97 percent of the onshore search area being at low or very low risk of surface water flooding". Who carried out this analysis? Since the statement appears incorrect when looking at the flood maps and when visiting the sites during the winter months.

Relevant Legislation and local policies:

1 According to 6.2.26 Table 2-1 on p26

Legislation Relevance to protection of groundwater Overarching National Policy Statement (NPS) for Energy EN-1 Department of Energy and Climate Change (DECC) (2011) EN-1 states that "Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent". No such studies appear to have been conducted for the Oakendene or Wineham Lane sites. When will these be completed?

2 On p38 WSCC have stated "WSCC welcomes the embedded environmental measure C-75, which states that construction and permanent development in identified floodplains within the Scoping Boundary will be avoided where possible. WSCC expects any work where this cannot be avoided to be robustly justified through the site selection process, and any mitigation proposed to be compliant with all relevant policies, including the NPPF." Rampion could avoid the flood plain, but using the Wineham Lane site. Has WSCC been given sufficient assurances and evidence from Rampion? If so, please may we see copies.

3 Drainage and SuDS: "Vulnerable aspects of the development should be located on parts of the site at lower risk and residual risk of flooding". Opportunities should be taken to lower flood risk by reducing the built footprint of previously developed sites and using SuDS. The alternative site at Wineham Lane North doesn't appear to have been thoroughly examined. Nor has Rampion confirmed where exactly they are proposing to place the substation.

4 The Exception Test, 2.2.14 NPS EN-1 (DESNZ 2023a). The test provides a method of allowing necessary developments to go ahead in situations where suitable sites at lower risk of flooding are not available" . However the alternative site at Wineham Lane North has no such flood risk and is available. Please refer to attached EA flood risk maps.

5 On p103, point 26.6.77 and 26.6.81 The Environmental Agencies RoFSW mapping indicates a "regions of high surface water flood risk are shown to intersect the onshore substation site, the temporary construction compounds and Oakendene (Cowfold stream tributary)." "The most significant areas of Flood Zones 2 and 3 are located in the lower tidal reaches of the River Arun at Littlehampton in the southern section of the onshore cable corridor, and on the River Adur and the Cowfold Stream in the north-eastern section of the onshore cable corridor. When was the site survey carried out at Oakendene? And at What time of year? Please may we have copies.

6 P20 Drainage and SuDS "To satisfactorily manage flood risk, arrangements are required to manage surface water and the impact of the natural water cycle on people and property" (Paragraph 5.8.24). "The surface water drainage arrangements for any project should, accounting for the predicted impacts of climate change

throughout the development's lifetime, be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect." (Paragraph 5.8.27)

7 According to 6.4.26.2 Chapter 26.7 Table 26-20 on p18 The NPS EN-1 have flood risk specific requirements. "Flood risk -the project is designed and constructed to remain safe and operational during its lifetime, without increasing flood risk elsewhere". Has this been determined?
"Functional floodplain. "Energy projects should not normally be consented within Flood Zone 3b, or Zone C2, on land expected to fall within these zones within its predictable lifetime (paragraph 5.58.41)

8 P13. NPS EN-5 restates the requirements of NPS EN-1 that due consideration and assessment is given to the effects of future climate change on flood risk to electricity transmission infrastructure (Section 2.4).

9 Paragraph 2.4.1 requires that "Applicants should in particular set out to what extent the proposed development is expected to be vulnerable, and, as appropriate, how it would be resilient to: flooding, particularly The FRA presented in Appendix 26.2: Flood Risk Assessment, Volume 4 of the ES (Document Reference: 6.4.26.2) has addressed the issue of climate change and flood vulnerability resilience.

10 Page 13 Policy description Relevance to assessment for substations that are vital for the electricity transmission and distribution network; effects of wind and storms on overhead lines; higher average temperatures leading to increased transmission losses; and earth movement or subsidence caused by flooding or drought (for underground cables)."

11 on p17, Policy 38 HDC, 2015): Flooding Development sets out measures that proposals will follow with respect to flood risk management.
Rampion response:
The policy states that priority will be given to development sites with the lowest risk of flooding and making required development safe without increasing flood risk elsewhere. This Statement from Rampion seems to contradict the decision for choosing Oakenene.

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The selection of Oakendene seems to contradict Rampion's response.

14 In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to: ● remain operational and safe for users in times of flood; ● result in no net loss of floodplain storage; ● not impede water flows and not increase flood risk elsewhere

15 NPS EN=1 paragraph 5.7.5 identifies a variety of minimum requirements for Flood Risk Assessments (FRA's). Have these assessments been completed ? and if so, please may we see the results.