Horsham District Council

Richard Allen
Lead Panel Member for the Examining Authority
The Planning Inspectorate
National Infrastructure Planning
Temple Quay House, 2 The Square
Temple Quay
Bristol
BS1 6PN

Your ref: EN010117
Email:
Matthew.porter@horsham.gov.uk

5th November 2023

BY EMAIL ONLY

Dear Mr Allen,

RE: Application by Rampion Extension Development Limited for an Order Granting Development Consent for the Rampion 2 Offshore Windfarm Project

Horsham District Council's Relevant Representation

EXECUTIVE SUMMARY

1.1 Horsham District Council ('HDC') supports renewable energy generation and carbon reduction objectives to meet climate change commitments. However, as a Host Authority, HDC has some concerns regarding mitigations and enhancements associated with environment impacts, particularly regarding nature conservation and biodiversity and green infrastructure assets and impacts to residents and businesses given potential disruption during the construction phase, particularly regarding air quality and noise. HDC will continue to engage with the Applicant to ensure that should the DCO be granted, that social, economic, and environmental benefits are delivered.

1.2 HDC is the planning authority for Horsham District, except for the area of the district within the South Downs National Park. West Sussex County Council is the highways authority and Lead Local Flood Authority and Minerals and Waste Authority that covers Horsham District. The initial principal areas of concerns set out below therefore relate primarily to the administrative area and remit of responsibility of Horsham District Council. WSCC will also lead on archaeology given their in-house expertise on this matter.

1.3 **Draft Development Consent Order and Securing Mitigation.** HDC has concerns across several topic areas to the lack of commitment and securing mechanisms of mitigation, monitoring and compensation. It is not always evidently demonstrated that mitigation/compensation is captured in a securing mechanism and the Commitments Register appears more aspirational rather than embedded environmental measures.

1.4 **Socio-economics and Transport.** The Outline Skills and Employment Strategy (OSES) has limited detail and HDC is not listed as a consultee to this document. HDC is excepting to be a recipient and consultee regarding benefits given the adverse effects the district will experience during construction. The OSES is very high level and supporting existing local business is not included as an objective. The Community Benefits Package is treated

as being divorced from the OSMS but there is opportunity for these to be aligned to assist in mitigation. HDC shares and supports the overarching concerns raised on highways and traffic impacts in particular regard to lack of sufficient mitigation including with the Outline Construction Traffic Management Plan, and with regard to mitigations for the purposes of managing traffic through the AQMA and Cowfold to minimise disruption to traffic flow impacts along the A272, and as identified as Principal Issues of Disagreement by WSCC in their capacity as responsible Local Highway Authority.

1.5 **Terrestrial Ecology and Nature Conservation.** HDC has concerns on the lack of demonstration of water neutrality, lack of clarity on mitigation, compensation, and terrestrial biodiversity net gain, and feasibility of habitat creation at Oakendene substation site. HDC shares and supports the overarching concerns raised on terrestrial ecology and nature conservation impacts, and as identified as Principal Issues of Disagreement, by WSCC.

1.6 **Landscape and Visual Assessment.** Concern is expressed in the lack of clarity on the delivery of advanced planting with the Outline Landscape and Ecology Management Plan, particularly (but not limited to) advanced and existing hedgerow management arrangements and how some mitigation measures are to be monitored and action including the reinstatement of hedgerows. Additionally, issue is raised with the consistently applied to the execution of the Landscape and Visual Impact Assessment methodology regarding receptors. This might mean that a potentially significant effect will be overlooked if effects are diluted down due to their limited geographical extents. These include visual receptors at Washington recreation ground. Key visual receptors are being assessed as part of a group and not being given dure consideration to reflect the actual likely effects experienced by those receptors. Landscape features at Oakendene substation are not described and assessed within the core assessment of effects, but rather dealt as part of the character area. This overlooks the actual likely effects on the landscape features as receptors in their own right, and the need arising from the LVIA to refine and fix more precise parameters to the development of the Oakendene substation site is identified. These are key and heavily relied upon to the success of the Project's embedded environmental measures and proposed mitigation measures on the LVIA conclusions.

1.7 **Noise and Air Quality.** HDC is concerned regarding the adequacy of the noise and air quality assessments which both potentially underestimate the impacts arising from construction and operation phase effects. HDC has concerns regard the modelling of the noise sources, adequacy of the assessment of background noise levels, omissions from the assessment and validity of the assessment method. There is inadequate consideration of the Air Quality and emissions mitigation guidance for Sussex (2021) and insufficient robust mitigations pertaining to the Cowfold Air Quality Management Area.

1.8 **Water Environment.** HDC shares and supports the overarching concerns raised on water environment impacts to the design for the operational drainage at the Oakendene Substation works and that the current Flood Risk Assessment and design proposals for the Oakendene Substation do not truly reflect the winter flooding that occurs at his location, and as identified as Principal Issues of Disagreement, by WSCC in their capacity as responsible Local Lead Flood Authority.

2. Introduction

2.1 This Relevant Representation ('RR') is submitted by Horsham District Council ('HDC') in respect of the application by Rampion Extension Development Limited ('the Applicant') for a Development Consent Order ('DCO') for the Rampion 2 Offshore Windfarm Project ('the Project'). HDC is a Host Authority as classified by the Planning Act 2008. This RR is accompanied by HDC's initial draft (version 1) Principal Area of Disagreement Summary Statement ('HDC PADSS').

2.2 Although HDC is a 'B' Authority in the Development Control Order ('DCO') process it is not intended that its RR duplicates that of West Sussex County Council (WSCC) in its responsibilities as Local Highway Authority, Local Lead Flood Authority, and Minerals and Waste Authority.

2.3 Accordingly, WSCC in its own RR will consider the finer details related to concerns related to transport and traffic, flood risk and drainage, and minerals and waste. Where there is common ground HDC's RR is intended to compliment the WSCCs on these matters, and primarily address concerns from the district planning authority's remit.

2.4 Equally, the South Downs National Park Authority (SDNPA) is the Planning Authority for the National Park area of Horsham District, and the planning needs for this area will be set out by the Park Authority. It is therefore not intended that this RR duplicate that of the SDNPA in its responsibility for planning for this area. Where there is common ground HDC's RR is intended to compliment the SNDPAs on these matters, and primarily address concerns from the district planning authority's remit.

2.5 This RR relates only to onshore impacts of the proposed development as it affects the administrative area of Horsham District Council (HDC).

2.6 Specifically, it describes the impact of the proposed development within the administrative area of Horsham District (as described in Chapter 4: The Proposed Development, Volume 2 of the Environmental Statement (ES), namely:

- Buried onshore cables in a single corridor using trenching and backfilling installation techniques and trenchless and open cut crossings.
- A new onshore substation, proposed near Cowfold, which will connect to an extension to the existing National Grid Bolney substation, via buried onshore cables.

2.7 This Relevant Representation is structured firstly, with a setting out of the district context and then under relevant topic-based headings (split by discipline as detailed and ordered in the Applicant's ES).

3. District Context

Character

3.1 Horsham District is located within the northwest part of West Sussex. The district is predominantly rural in character and contains several small villages and towns. 95km2 (36.49 square miles) of the district falls within the South Downs National Park.

3.2 The onshore cable corridor would pass through several National Character Areas (NCA) on route through Horsham District. This includes the Low Weald (NCA) that comprises of a mosaic of irregular pastoral and arable fields enclosed by a strong framework of mature trees, woodland shaws and Ancient Woodlands, which makes a significant

contribution to district character. Two Valued Landscapes in the district are of national importance: the High Weald Area of Outstanding Natural Beauty covering the eastern part of the District and the South Downs National Park in the southern part. The cable corridor would pass through the latter.

3.3 Habitats and species found across the Development Area is varied, including arable, and grassland as well as rivers and associated environments but a key characteristic is the network of woodland blocks (some Ancient and Semi-Natural) and dense hedgerows linking wildlife habitats across the district. The south-west of the district provides an important feeding ground for the internationally important Barbastelle bats. The Arun Valley floodplain is a distinctive habitat of both national and international importance within the district.

3.4 The Development Area itself is largely rural countryside, mostly in agricultural use and managed rural estate, but sections of the cable corridor would pass close by settlements and their valued open space and green infrastructure, including the villages of Washington, Storrington and Sullington, and Cowfold. The latter is near to where the cable route would terminate to form a new substation to connect to the existing National Grid substation at Bolney.

Economy and Housing

3.5 The rural surroundings of the district support a rural economy. Additionally, employment opportunities in the district are generated from leisure, tourism, and retail businesses. The majority of Horsham District is located within the Gatwick Diamond economic area. Transport access and ease of movement is a key factor in the performance of the local economy, enabling residents to travel to their place of work, and allow the movement of goods and services. The A272 crosses the northern part of the Parish. Within the district, it runs in a broadly west-east direction from Billingshurst to Haywards Heath. The A24 runs in a north-south direction down the western side of the district and crosses the A272 to the north.

3.6 The Cowfold Road (A272) is a key local distributor, taking traffic east-west across the district and linking several other strategic road networks (A23 to the east and the A24 to the west) with quieter, rural lanes. At Cowfold, the natural restriction created by the staggered A272/A281 junction, combined with the volume of traffic using the A272 as a major link road, results in significant standing traffic during morning and evening peak periods. This is reflected in congestion being raised as a key issue by the community.

3.7 The district has seen a significant development in recent years with strategic-scale housing schemes under construction particularly in the northern and central parts of the district. The larger settlements have also accommodated developments of scale in recent years, however, pressure for housing development remains.

Environmental Quality and Climate Change

- *Water Neutrality*

3.9 Horsham District is in an area of serious water stress, as identified by the Environment Agency Water Stressed Areas Classification. Horsham District is supplied with water by Southern Water from its Sussex North Water Resource Zone. This supply is sourced from abstraction points in the Arun Valley, which includes locations such as Amberley Wild Brooks Site of Special Scientific Interest (SSSI), Pulborough Brooks SSSI and Arun Valley Special Protection Area/Special Area of Conservation and Ramsar site. In September 2021, the council received a Position Statement from Natural England. The

Natural England position is that it cannot be concluded that existing abstraction within the Sussex North Water Supply Zone is not having an impact on the Arun Valley sites. It advises that development within this zone must not add to this impact.

- *Nature Conservation and Biodiversity*

3.10 The District benefits from a high-quality natural environment, some of which is designated for its international and national importance (including the Arun Valley SPA and The Mens SAC and its qualifying feature of Barbastelle bats). However, alongside much of the UK, biodiversity has been impacted by changing land management practices, increased pressure for development and climate change. In this regard, HDC is working with the Sussex Wildlife Trust in a five-year partnership called Wilder Horsham District. The main objective of this partnership is to deliver a Nature Recovery Network which will seek to reverse the decline in species and habitats and enrich the district's natural environment.

- *Air Quality*

3.11 There is a high reliance on car travel in the district. In addition to traffic congestion, this also contributes to emissions of air pollutants. The district has two Air Quality Managements Areas (AQMAs) within 5km of the onshore cable corridor; Storrington Air Quality Management Area (declared in 2010) and Cowfold Air Quality Management Area (declared in 2011). HDC has declared the whole of the district an 'Emission Reduction Area' and is a member of the Sussex Air Quality Partnership. Monitoring of air quality in the district has revealed that some areas have high levels of nitrogen dioxide and therefore a key consideration for the Council is the impact of development on air quality.

3.12 Cowfold is a location where an Air Quality Management Scheme is in operation. The natural restriction created by the staggered A272/A281 junction, combined with the volume of traffic using the A272 as a major link road, results in significant standing traffic during morning and evening peak periods. The Cowfold Air Quality Management Area (AQMA) was designated in December 2011.

- *Climate Change*

3.13 In June 2023, Horsham District Council declared a Climate and Ecological Emergency for the Horsham District. The declaration of a Climate and Ecological Emergency will strengthen and further enable the Council to move forward with its carbon neutral agenda, enabling it to achieve its own carbon neutral target for 2030 and the Horsham District carbon neutral target for 2050. HDC has produced a draft Climate Action Strategy to support the whole of Horsham District to become carbon neutral by 2050.

SUMMARY OF HDC AREAS OF CONCERN

4. Climate Change

4.1 The proposed wind farm would generate a significant amount of electricity from a renewable source, meeting the energy needs of many homes. A grid connection offer in place means the scheme could make an early and significant contribution to the objectives of the Council's draft Climate Action Strategy (March 2023).

4.2 It is important to continue to manage development and change within the district, considering both the effect that the development would have on the character and appearance of the area and mitigating the environmental impact of new development both at the time of construction and in the future, as well as the need for infrastructure requirements to meet the Council's Climate Action Strategy. It is preferable to do this in a proactive way rather than a reactive way.

4.3 HDC has declared a Climate Emergency and is committed to reducing carbon emissions. The development of renewable energy is a key means of reducing the district's contribution to climate change. Nonetheless, renewable energy proposals will need to consider the impact that they may have on valued landscapes, including the need to consider views from Valued Landscapes to proposals which lie outside the South Downs National Park or High Weald AONB.

4.4 The location of the development area within the countryside will have effects on the spatial pattern of development in the district. It will need to be judged whether the development is an appropriate use of land which it proposes to authorise.

5. Terrestrial ecology and nature conservation

5.1 The Development Proposal has the potential to harm biodiversity both directly and indirectly. Direct effects include loss of land to new development, whereas indirect effects include increased water abstraction to serve the development resulting in harm to water quality and water levels; and increased traffic resulting in a decline in air quality, both of which can impact habitats and species some distance from the development area.

5.2 Overall, HDC supports the approach to cable routeing undertaken as it has sought to avoid locally and nationally designated sites and woodland wherever possible and to narrow the working width at important hedgerow crossings. Additionally, HDD techniques are proposed at several environmentally sensitive locations, including river crossings and under woodland to further reduce the ecological impacts. HDC advises that where trenches may be left open outside of working hours, ramps should be placed intermittently along the length of the trench, to allow trapped animals to escape with ease.

Ecology surveys and assessments

5.3 Sufficient information has been provided to assess the effects of development on biodiversity, along with necessary ecological surveys together with any proposed prevention, mitigation, or compensation measures. Specific comments to note are set out below.

Irreplaceable and Priority Habitat

5.4 It is the understanding of HDC that the Applicant will not be removing any irreplaceable habitat within the DCO Order Limits within the administrative area of Horsham District. For the pocket of ancient woodland south of the Oakendene Industrial Estate, HDD will occur, with the drill entry complying with Root Protection Area and at a 6 metres depth. This is the only irreplaceable habitat mapped within the Phase 1 report in this area.

5.5 According to the Phase 1 report, there is a species-rich and species-poor hedgerow (priority habitat) running along the north and west boundary of the Washington Recreation Ground, a very small woodland pocket in the field to the west, and scattered trees across London Rd/The Pike. According to section 22.9.100 in Chapter 22 Terrestrial ecology report, no species-rich and/or important hedgerows will be permanently lost, with all permanent losses being associated with the Oakendene substation (22.9.103). Temporary losses will be reinstated within 2 years, either via planting or hedgerow translocation. With regards to potential protected/priority species within these habitats, any relevant mitigation licences granted will be followed, and an Ecological Clerk of Works will be present during the works.

Wintering birds

5.6 Due to the scale of the proposed development, the Applicant used a sampling approach when choosing wintering bird survey sites, focussing on areas that were mostly likely to support aggregations informed by desk study returns (particularly those nearby designated sites; para 2.1.2 of Appendix 23.3 Rampion 2 Winter Bird Report). This method is acceptable.

The Mens

5.7 The DCO works fall within the 12km conservation zone defined around the Mens Special Area of Conservation (Mens SAC). It has been identified as being in use by Barbastelle bats, which are a qualifying feature of the Mens SAC (where minimisation of disturbance and maintenance of habitat connectivity is important). The site also lies within the Sussex North Water Supply Zone, in relation to which an existing adverse effect on the Arun Valley SAC, Special Protection Area and Ramsar site ('the Arun Valley sites') was identified by Natural England (NE) in 2021 due to water abstraction. Likely significant effects on the integrity of these habitats sites because of the development cannot therefore be excluded. In accordance with the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations) an Appropriate Assessment (AA) is therefore required.

5.8 In relation to the Mens qualifying features, in addition to the wider importance of woodland and Ancient Woodland, individual trees, including 'veteran trees' are also important contributors to the bat biodiversity of the district. It should be recognised that it may sometimes be necessary to undertake work on or fell protected trees and/or remove hedges. Mitigation such as hedgerow enhancement has been proposed. This includes control of article light emissions to specifically relate to the need for it, to be informed by further bat surveys.

Biodiversity Net Gain

5.9 The Development Proposal has sought to mitigate and enhance biodiversity through a range of measures, including a commitment to Biodiversity Net Gain and enhancements either on or off the site and provide buffer strips around protected sites, including Ancient woodland and other vulnerable habitats, and maintain, reinstate and enhance wildlife corridors. The location of areas with potential for enhancing biodiversity within Horsham

District is identified in the Council's Green Infrastructure Strategy and Wilder Horsham Strategy.

5.10 It is welcomed that the Applicant proposes to deliver a 10% BNG in West Sussex as part of the development (see C-104 on Commitments Register), despite not becoming mandatory for NSIPs until November 2025. It is also encouraged that where on-site BNG is not possible, off-site efforts are prioritised in locations that fall under the upcoming Local Nature Recovery Strategy (LNRS) and/or Biodiversity Opportunity Areas (para 5.3.6 of Appendix 22.15 Biodiversity Net Gain Information). Delivery of off-site habitat creations and enhancements before or during the early stages of construction is strongly supported (para 22.7.9 of Chapter 22 Terrestrial Ecology and Nature Conservation).

5.11 Nevertheless, a full assessment of the BNG plans cannot be made without the submission of a completed statutory biodiversity metric, a habitat management and monitoring plan in full (including details of off-site BNG sites; see C-199) and a map of proposed areas for BNG. However, it is understood that these documents will be submitted later when more information is acquired, and the overall project design is finalised.

5.12 As per para 4.2.7 of Appendix 22.15, given the nature of some of the habitats within the DCO Order Limits (namely coastal and flood plain grazing marsh, lowland mixed deciduous woodland and other rivers and streams), the Applicant proposes to satisfy the trading rules through enhancement of already existing habitats of the same type. This is because these habitats require specific physical elements and are therefore difficult to create. Furthermore, the Applicant will be replacing all 'temporary' loss of woodland with scrub, due to the need to protect transmission cables from root damage caused by large trees (para 3.1.7 of Appendix 22.15). Because of this, HDC strongly advises incorporating planting of woodland as part of BNG uplift off-site.

5.13 HDC also requests there is scope to enhance Cowfold Stream, as it is in bad ecological status according to DEFRAs catchment data explorer. This would benefit the potential local water vole population, with desk study records being identified within tributaries of the waterbody (see 22.5.74 of Chapter 22) and surveys recording signs of water vole near to the site (Figure 22.11.6 of Appendix 22.11 Badger, Otter, and Water Vole Survey Report). Furthermore, HDC recommends creation and/or enhancement of hedgerows in Henfield (particularly with blackthorn), a current hotspot for the brown hairstreak butterfly, a Sussex BAP. HDC would also encourage incorporating black poplar trees as part of the wet woodland habitat creation plans at the Cowfold substation, given this tree species is a Sussex BAP.

5.14 Where replacement planting is required, replanting with native species is proposed to ensure that ecological networks remain functional and to prevent the isolation of trees and woodland in the landscape. HDC requests that the proposed level of net gain is committed to by the Applicant and secured in the DCO, should the application be consented.

The Oakendene Substation

5.15 In the case of the substation, it has been agreed with the applicant through the production of Principles of that biodiversity enhancements will be considered as part of the building design and layout (including proposals for Sustainable Drainage). Nonetheless, HDC further consideration of appropriate mitigation to minimise any harm is required, and HDC requests the applicant look further at enhancement measures to compensate for the residual impacts that had been identified in the ES.

5.16 According to Figure 22.8.23b of Appendix 22.8 (Passive and active bat activity report), there was a total of 3,621 bat passes along hedgerows H511 and H512 (transect AT10) located at the Cowfold substation site, which are to be permanently lost. Furthermore, a single juvenile hazel dormouse was recorded in October 2022 along this hedgerow network (para 22.5.64 of Chapter 22), and grass snake and slow worm were identified in low numbers within the proposed substation site (para 22.5.69 of Chapter 22). eDNA surveys for great crested newt returned positive results in ponds nearby to the substation site (Figure 22.7.6m of Appendix 22.7 Great Crested Newt Environmental DNA Survey Report 2021-2023), and breeding bird surveys identified multiple nightingale territories on site (para 3.4.1 of Appendix 22.13 Breeding Bird Survey).

5.17 Therefore, many protected and notable species utilise this hedgerow, acting as a wildlife corridor to other suitable habitats. To mitigate against the potential for roosting bats in the trees within the hedgerow, the Applicant will conduct pre-construction surveys of trees with bat roost potential that require removal or pruning (C-211 on commitment register). Should roosts be identified, suitable mitigation will be delivered in accordance with an EPSL from NE and works supervised by an Ecological Clerk of Works. Likewise for hazel dormouse (C-232), reptiles (C-208), and great crested newt (C-214), pre-construction checks will be carried out and an EPSL sought where necessary. As part of commitment C-232, enhancement opportunities to improve habitat connectivity will be sought through C-103, C-104, C193, C-196 and C-199.

5.18 The proposed landscape plan (Figure 1 of Rampion 2 Outline Landscape and Ecological Management Statement) includes retention of existing hedgerows along Kent Road, the A272, and the southern boundary of the site. It also includes planting of new scrub, woodland/wet woodland and scattered trees around the periphery of the substation, which are all suitable habitat for nightingale. 0.56ha of woodland/scrub is also due to be planted adjacent to the strip of scrub where the hazel dormouse was recorded, before construction of the substation commences (22.9.158 of Chapter 22). This will provide foraging opportunities in the short-term, and nesting opportunities as the habitat establishes.

5.19 Therefore, the commitment to retain connectivity of the site with surrounding habitats and mitigate impacts on protected species is adequate. However, wet woodland is suboptimal habitat for hazel dormouse, and HDC would therefore suggest an increase in native scrub planting along the western boundary of the site, where current gaps between retained vegetation and native scrub planting currently exist. Additionally, due to the initial reduction in dispersal habitat for hazel dormouse (22.9.160 of Chapter 22), HDC advises consideration of further mitigation measures such as installing dormouse nest boxes within suitable habitat, to assist the populations' persistence during the construction phase.

5.20 Further to the above, assumed permanent lighting is restricted to the onshore substation (Table 22-19 of Chapter 22). Therefore, a lighting scheme will need to be submitted, as per commitment C-105, that complies with BCT Artificial Lighting Guidance Note and illustrates wildlife sympathetic lighting on the substation site. Moreover, during the management of onsite habitats, HDC discourages the use of chemical spot treatment of weeds (para 4.3.3 of Rampion 2 Outline Landscape and Ecological Management Statement) near to areas of wet woodland / SuDS, to avoid contamination of the water sources.

Water Neutrality and the Arun Valley sites

5.21 In the case of Arun Valley sites, designation relates to birds, invertebrates and to aspects of the underlying wetland habitat. Increased demands for water would be at odds with

these objectives. Proposals must demonstrate that they will avoid harm to the water quality and water levels on the site, and Natural England advises that one way of doing so is to demonstrate water neutrality.

5.22 Although, water usage at the substation welfare facilities (including toilet, wash hand basin and additional sink) and a fire control (sprinkler) system) would be sporadic (the substation is not a permanently staffed facility, with people present for routine maintenance and repairs only) to achieve water neutrality mitigation would still be necessary.

5.23 The appellant has proposed efficient fittings and a centralised system of grey water recycling for the proposed development. Affected authorities are currently working towards the delivery of a strategic scheme whereby developers can contribute financially to an offsetting scheme that will deliver the necessary water use reductions across the area to enable developments to achieve water neutrality. Assuming this strategic scheme is available at the time of commissioning, the Applicant would provide the required financial contribution to the scheme to enable the water usage at the substation to be fully mitigated. If the strategic scheme is not available at the time, then a range of bespoke measures would be put in place. This would include the reduction of potential water use on-site at the substation (as per commitment C-260) via water harvesting and recycling and other measures (such as alternative supply of water via tanker). Currently the strategic scheme is being formulated but is expected to be in operation well before the substation would be commissioned.

5.24 There is no strategic solution currently in place. The scale of the financial contribution cannot yet be estimated as there is neither a detailed design for the substation (which is reliant on a large range of factors including number, type and output of individual wind turbines, number of transmission cables etc.) allowing for an estimate of water usage. Shifting the burden of proof to some point in the future neither does nor would satisfy the need for certainty at the point of undertaking an AA. Given that uncertainty remains, and use of a condition could not resolve the matter, HDC cannot conclude that likely significant effects on the integrity of the Arun sites would be mitigated.

5.25 In this instance, the nature of the proposed development would result in an increased consumption of water that would result in a significant impact on the Arun Valley sites, either alone or in combination with other plans and projects.

6. Landscape and Visual Impact Assessment

6.1 The scope of a Landscape Visual Impact Assessment (LVIA) does not include visiting or assessing individual private views. The documents identify the impacts to users of Public Right of Way 1786 (and also 1788), which is as required as part of the LVIA. These and other viewpoints around the proposed substation are also accompanied by a visualizations, see (part 2 of 6), viewpoints SA2 (fig 18.11a-e); viewpoint SA3a (fig 18.12a-e); SA3b (fig 18.12f-j); viewpoint SA7a (Fig 18.13a-c); viewpoint SA7b (fig 18.13d-h; viewpoint SA8 (fig 18.14). Notwithstanding, HDC considers that generally the network of public rights of way in this area is not extensive and the fact that adverse harm has been identified on these receptors, this would be unlikely a strong enough reason to reject the location, particularly when receptors already experience some urban influence and walk through the Oakendene Industrial estate.

6.2 The proposals would have an adverse impact on the landscape character and visual resources of the Low Weald National Character Area; and direct and indirect effects on the National Park designated landscape. In turn, this would change the character of the

landscape of Local Character Areas (five plus those where theoretically will have a visibility during construction). HDC agrees with the landscape character area receptors identified.

6.3 The Applicant has sought to mitigate this harm by use of engineering measures along the routeing of the underground cabling, to avoid significant residual visual impacts. The DCO submission sets out in principle how removed hedgerows will be effectively restored and replanted. This is a key approach to mitigation to be implemented correctly, as the entire Landscape Visual Impact Assessment is based on the success of these measures.

6.4 Embedded environmental measures (table 18-25) re C-115, which proposes that reinstated hedgerows and tree lines will be monitored over a period of 10 years and remedial action swiftly taken, and this is followed through into the Landscape Environmental Management Plan (LEMP) but no guidance on procedure is yet provided. Para 2.6.11 (of the LEMP) says this is to be submitted with the maintenance works but not clear at what stage this is to be submitted. It is unclear if this means with a LEMP for each phase. Triggers need to be clear to what is considered completion and when the 10 years is started (is it for full construction period or partial completion at each phase) and equally for the 10 years post planting (is it from practical completion or partial completion of each phase).

6.5 In terms of construction phase, the temporary works compounds at Washington would be visible from and would sit within views to the South Downs National Park. Impact on a National Park is afforded the highest levels of protection and includes an express requirement to consider impact on its setting. Concern is raised over the impact arising the outlook from the South Downs National Park, particularly given the elevated viewpoints within the Park. During construction stage, due to construction compounds, there are also likely significant effects to users of the Washington recreation ground. These have not been identified as likely significant effects but will need to be considered as part of the receptors accessed. Additionally, at table 18-23 Onshore cable corridor – visual receptors within 2km (south north) Part SDNP (page 119 of the LVIA), Washington is included within settlements receptors and reference is made to recreation ground, allotments, and village green. However, this into then followed during the visual assessment (appendix 18.4) and needs to be addressed.

6.6 Furthermore, Washington Recreation ground effects are assessed within the settlement receptor rather than a receptor on its own right (Appendix 18.4: Visual assessment, Volume 4 of the ES (Document Reference: 6.4.18.4); Page 39 - Table 1-7 visual effects of onshore cable corridor on settlements: Washington). This is considered acceptable to simplify the complexity of the LVIA but HDC disagree that the level of effect is considered minor and not significant, mostly justified by the fact that the cabling is underground and view H1 (acknowledges the compound as significantly visible) is not considered as being representative of views from the settlement. Whilst this may be the case from the settlement overall, it is considered that users of the recreation ground, are not being given a proportionate assessment and in this case, it may perhaps make more sense to include it as a receptor within recreational and tourist destination receptor group. No assessment of the allotments and village green as previously indicated at table 18-23.

6.7 In terms of the operational phase, the overriding issue is the substation at Cowfold; and whether all reasonable endeavours had been made to minimise the scale, both through the parameters of the building itself and through its siting, and whether adequate provisions were being made to secure mitigation. The proposals would impose the substation site as a permanent feature in the landscape, notably by way of the scale of the proposed substation, and its indicative design, and supporting industrial features

such as fencing, CCTV cameras, and tracks, and on visual receptors, including the nearby Public Right of Way network. The Applicant has sought to mitigate this harm by boundary planting that would of benefit in filtering the development once established.

6.8 The Applicant has identified likely Significant effects have been identified on landscape effects to the Oakendene substation. This identifies significant effects on the Local Character Area during construction, operation and maintenance and decommissioning phase. This is agreed with. In addition, it is considered that the substation will have a significant effect on some of the onsite existing landscape features (such as the removal of the internal tree and hedgerow boundary). Likely Significant effects have also been identified on visual effects to the Oakendene substation. Significant effects are identified on receptors (prow 1786 and 1788 and road users on A272 and Kent Street) during construction. These are likely to reduce to some degree once mitigation measures mature during operation stage but there will still be significant residual effects to users of prow 1786. HDC also consider that significant effects will be experienced by users along 1787. Commitment C-68 on the substation design and material/finishes should take account of WSCC land management guidelines and given the substation is within Horsham District, the proposals should also take account of local character areas guidance's and characteristics within the J3 Cowfold and Shermanbury Farmlands, of the Horsham District Character assessment.

6.9 Landscape elements and recreational destinations are identified as receptors (in the scope of the assessment) but not assessed as likely to result in significant effects during construction, operational and decommissioning stage. HDC has concerns the effects on landscape elements are understated, as the loss of the internal boundary hedgerows and trees, as landscape features, to facilitate the new proposed Oakendene station for example, are significant. It is positive however to see that these have been identified as receptors, even if the conclusions are disagreed at this stage. Additionally, in the baseline conditions for the onshore substation at Oakendene – landscape receptors, the site's landscape features are not identified. Only the character areas are discussed. The site's landscape features need to be part of the assessment as they are also identified (as receptors in the scope of the assessment). The LVIA confirms that the operational stage of the proposals at Oakendene substation (completed development) and concludes that there are significant landscape effects to the host landscape character area (J3: Cowfold and Shermanbury Farmlands). This is also the case for the landscape character of the site itself and immediate setting, particularly to the south and southwest. The loss of the landscape features (internal boundary hedgerows and trees), recognised in the LVIA as contributing to the landscape character, is considered of high magnitude. HDC concurs with this.

6.10 To note, in Appendix 18.3 Landscape assessment, volume 4 of the ES (Doc Refence 6.4.18.3) tables refer to visual receptors but it is assumed this is a typing error and mean landscape receptors. In here, the land landscapes elements are assessed separately but this does not seem to follow onto the overall conclusions of the core document.

6.11 As previously highlighted, how removed hedgerows will be effectively restored and replanted is a key approach to mitigation to be implemented correctly, as the entire Landscape Visual Impact Assessment is based on the success of these measures. Whilst the Outline LEMP sets out an acceptable strategy, HDC would encourage commitment to the delivery of advanced planting where possible and existing hedgerow management arrangements actioned from the outset, with details submitted prior to commencement on site. The Landscape Management section of the LEMP refers to monitoring proformas to be made available to HDC and any adaptive measures to be discussed and agreed prior to implementation, but no details to how this will be triggered and secured. At para 4.5.4 it is suggested that reinstatement plans will not be produced

for all areas of landscape. However, my interpretation of the stage specific LEMP (para 2.6) would be that this is for all areas works, which must include proposed, and reinstatement works. Otherwise, it raises query to how would the reinstatement be monitored. The submission of planting plans are not referred to within the LEMP although this is suggested within the DAS that would form part of this report. No reference to planting plans within the DCO either.

6.12 The issue with part-completion dates has been identified throughout documents as each phase will have a different construction completion date. This will make monitoring of the various aspects of maintenance of proposed landscape difficult to kept track of and difficult to establish the end of the 10 year period referred to as part of the maintenance and monitoring period. A clear programme as to how this is to be addressed needs to be secured.

6.13 Whilst it is agreed that in time the proposed mitigation will reduce the identified visual adverse effects, this will not be the same during construction and pre planting areas should be explored. The pre-planting of landscaping works is referred to within the DCO under 'onshore site preparation works' (page 8, under the interpretation section), and also within the LVIA as mitigation measures, however the locations where this would be feasible doesn't seem to be identified anywhere yet. HDC also cannot see this identified as a commitment within the register. In the draft Development Consent Order, pre-planting is discussed as being part of the 'on-shore site preparation works' (Part 1 Preliminary, Page 8, under the interpretation section). However, there is no reference to this as a commitment or to which geographical area this would be implemented. This is important to help mitigate temporary effects during construction but also where possible, it will offer advanced screening prior to operation stage. One example will be to action the management and maintenance of the hedgerow along the A272 to soften views of the temporary compound, but also introduce any enhancement planting along this boundary and Kent Road. Additionally, Part 3 Requirements, provision of landscaping requires works no. 16 (onshore project substation and associated construction works) not to be delivered without being accompanied by the relevant part of works 17 (environmental mitigation). However, it is unclear if the detail of each works type will be subject to detailed design secured within the DCO under the various commitments/ requirements. The wording in Part 3 13 (2)" requires clarification – is removal or damage (Such as vandalism) by a third party covered by this clause. It is also unclear when the 10-year trigger starts in reference to 'within a period of 10 years after planting'. Is it post completion for the overall scheme or are these targeted, based on part completion certificates for each phase and therefore different completion dates.

6.14 With regard to the Design and Access Statement (DAS), the principles identified to maintain the rural landscape character are agreed with but these principles do not take into consideration the adverse effects of the construction period and therefore any identified adverse effects during the construction will remain and temporarily will not 'maintain the rural character' and adverse effects are experienced. For example views and experience of rural character from the A272, Figure 18.11b, Figure 18.13b (doc ref 6.3.18, Vol 3, Chapter 18 LVIA figures (Part 2 of 6)). Notwithstanding, it is recognised that views from several receptors, such as near the lake to the south of Oakendene Manor and part of PRoW 1786, will be adversely affected by experiencing some loss of rural character and views across the parkland landscape at Oakendene Manor.

6.15 The DAS proposes that amongst others, amongst others, planting plans and specifications are to be included within the LEMP, and HDC is supportive of this approach. The DAS also directs the reader to plans where it is shown areas of vegetation to be removed and retained. This can be found at Outline Code of Construction Practice (CoCP) Appendix B – Vegetation Retention Plan (Document Reference: 7.2). Within the

context of Oakendean Manor/substation, one section of woodland clearance (20m) is proposed within our district, see Fig 7.2.2h (vegetation retention plans). Also as identified and discussed previously, the development will require the removal of the internal field's boundary of hedgerow and trees, which will have an adverse effect on the landscape character and visual amenity. These are historic field boundaries shown on old OS Maps 1888 and will result in the loss of key characteristics of the character area. However, mitigation, is proposed and described within the LVIA through additional planting.

Trees and Hedgerows

6.16 The submitted Arboricultural Impact Assessment appears to be fair assessment of the quality, and condition of tree along the route and the potential impact of the proposed development on trees, woodlands, and hedgerows.

- *Tree survey method*

6.17 The trees have been surveyed using the BS5837 Trees in relation to design demolition and construction Recommendations (2012) survey methodology. They have been allocated a category reflecting their condition and estimated remaining lifespan.

6.18 The tree survey covered approximately 96% of the proposed DCO order route. The trees within the remaining 4% of the area were not surveyed due to limited access. As such, they were recorded as groups of trees or woodlands depending on the geometry of each feature using aerial images of the surveyed area. Para 4.4.2 of the AIA.

6.19 Para 5.1.2 of the AIA refers to the number of trees, woodlands and hedgerows inside or within influencing distance of the DCO Order limits. Para 5.1.2 states that 974 individual trees, 792 groups of trees, 41 woodlands and 224 hedges were recorded as part of the survey. However, these numbers do differ from the number of trees recorded in ANNEX 4 Arboricultural Survey Data Sheets, where the number of individual trees surveyed is listed as 1482, the number of groups is listed as 1152, the number of Woodlands recorded is listed as 66, and the number of hedgerows surveyed is listed as 349. HDC does not have any significant concerns with how the survey data has been recorded or the classifications allocated to the trees.

6.20 Para 3.2.11 refers to how the recoded hedgerows were assessed using basic observations on species, form and dimensions, and the effects on hedgerows regarding retention, removal and management. The interpretation of these effects regarding landscape, visual significance and habitats forms part of the ES Chapter 22: Terrestrial ecology and nature conservation, Volume 2 (Document Reference: 6.2.22).

6.21 The way Root Protection Areas (RPA) of the surveyed trees have been calculated is in accordance with BS 5837. Para 4.7.2 of the AIA states that due to a lack of detailed topographical information, the RPAs of the trees have been adjusted to reflect site conditions that might have influenced the rooting pattern of trees.

6.22 Para 4.6.2 & 4.6.3 of BS 5837 states, "The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced.

6.23 Para 4.6.3 of the BS states "Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection for the root system" To compensate for the lack of topographical information, Para 4.7.2 of the AIA suggests that the RPA of any groups and woodlands has been applied as an offset from

the canopy edge depending on tree quality (and the individual attributes of the feature (i.e. age and average stem size).

6.24 Para 4.7.3 of the AIA states that where there is a concern with how the RPAs have been plotted in a specific location, they can be refined at the detailed design stage when more detailed topographical information is available; this would appear reasonable given the lack of any area-specific topographical data.

- *Statutory Controls and Non-statutory controls*

6.25 In section 3.2, the AIA refers to Statutory Controls and Non-statutory controls and designations, such as Tree Preservation Orders (TPOs), Felling licences, regulations concerning Countryside hedgerows, Ancient Woodland, Veteran trees, and Habitats of Principal Importance such as Traditional Orchards.

- *TPO impact*

6.27 Within Horsham District, only one TPO appears to be recorded within the DCO limits: TPO/1296 - W1 - Conifer plantation Land West of Wiston Cricket Club Steyning Road Wiston West Sussex. This woodland is recorded as W39 in the AIA. The Proposed DCO Order Limits are shown to abut the north-western corner of the woods but not within it, and from the AIA, it would suggest that no trees within the TPO area are indicated for removal.

- *Impacts on hedges.*

6.28 Para 7.9.1 of the AIA states that, in total, 58 hedges will be affected by the cable route, with sections of the hedges in question being removed. The total length of the hedgerows to be removed across the whole development is 1,440m, and only 5 of these sections would not be able to be replaced post-development at the same location. In the proposed Oakendene substation area, 646m would be permanently removed, and this loss would be compensated for elsewhere through the enhancement of existing hedgerows or the creation of new hedgerows in the local area.

- *Ancient Woodland impact*

6.29 Para 3.3.6 of the AIA provides details of ancient woodland identified inside or within 100m of the proposed DCO Order Limits. This has been undertaken by way of desktop searches. They have recorded 21 designated Ancient Woodland (AW) areas in the Horsham district within 100m of the DCO Order limits. Para 7.8.2, 7.8.3 and 7.8.4 of the AIA refer to how the development would be implemented so that there would be no loss of AW arising from development.

6.30 Where areas of AW are encountered, the AIA suggests that the onshore cable installation in such locations will be undertaken using trenchless methods to reduce the risk of damage to the AW, and it proposed that any tunnelling beneath AW will be maintained at a depth of at least 6m to avoid root damage and disturbance; this is positive to see. Additionally, Para 7.8.4 of the AIA States that all ground works will be restricted to areas more than 25m from the edge of Ancient Woodland (C-216). Thereby avoiding potential damage to tree roots, changes in local hydrology and providing space to contain any accidental pollutant spillages. This 25m stand-off is more than the 15m minimum recommended by Natural England and the Forestry Commission given in Standing Advice." This is satisfactory and positive to see. In addition, it is good to see that this construction method has also been proposed where the cable route will pass under the Jockeys Meads field and Washington Village recreation ground and will ensure

that the trees within the area will be unaffected by the below-ground works, due to the 6m depth of the cable tunnels.

- *Veteran tree survey method and impact*

6.31 The AIA shows that only 7 Veteran trees have been recorded, though the documents acknowledge that veteran trees may be found in the unsurveyed areas along the DCO. In this instance, the survey method used to identify veteran trees is set out in para 4.8 – 4.8.1 to 4.8.15 of the AIA. The assessment has been guided by the definition of a veteran tree provided in the National Planning Policy Framework ('NPPF'), which is widely used as the standard definition for planning decisions in England. The NPPF defines veteran trees are defined as those being collectively of an age, size and condition, and are of exceptional biodiversity, cultural or heritage value. This assessment method appears robust, and HDC do not have any significant concerns with how the AIA has recorded veteran trees. At the same time, it is acknowledged that a relatively high number of trees surveyed display some veteran characteristics; however, despite this, they would need to satisfy all the tests to meet the definition of 'veteran' set by NPPF.

- *Tree Removal, Management and Mitigation Planting*

6.32 The total percentage of trees indicated for removal accounts for 6.5% of the total number of trees surveyed; this is shown in Table 7-1 para 7.3.1 of the AIA. Table 7-3 of the AIA provides a breakdown of the tree stock indicated for removal according to the category allocated to the trees under BS5837, i.e., cat A, B and C.

- *Individual tree removal*

6.33 In total, 15 individual Cat A trees would need to be removed; these account for 5% of the total amount of Cat A trees surveyed. 36 Cat B trees, 9% of the total surveyed, 10 Cat C trees, 10% of the total surveyed and 5 Cat U trees, 10% of the total surveyed.

- *Tree group removal*

6.34 In total, 9 groups of Cat A trees would need to be removed; this accounts for 12% of the total amount of groups of Cat A trees. 25 Cat B groups, 10% of the total surveyed, and 55 Cat C trees, 14% of the total surveyed; no Cat U groups are indicated for removal.

6.35 From the submitted data, the removal of trees, groups of trees and woodland by canopy area equates 68% and 52% of hedgerow removal this is associated with open-cut cable installation.

6.36 The extension of the existing National Grid Bolney Substation represents 10% of tree removals by canopy area, but no hedgerow removal is proposed.

6.37 To accommodate the new Oakendene Substation, 11 Category A trees and 10 Category B trees are proposed to be removed; this is associated with 9% of tree removals by canopy area and 40% of hedgerow removals for the scheme.

6.38 Para 7.4.5 of the AIA suggests that 5% of Cat A trees surveyed would need to be felled, which is lower than the overall percentage of the Cat A tree surveyed (29%), and 9% of the Cat B trees surveyed would also need to be felled out a total population rate of 40%.

6.39 The proposed replacement planting appears robust and commiserate for the number and size of the trees and groups indicated for removal; this is set out in Para 8.5.7 and Table 8-1 Indicative Tree replacement rates of the AIA. However, it should be noted that

the younger trees proposed to be removed are, of course, more readily replaceable, while the older trees are not. Any replacement tree, even if of heavy-duty nursery stock, would take many years to reach a similar stature as the mature trees indicated for removal and thus would take many years to reinstate an equivalent level of visual amenity and ecological benefits that mature trees provided.

- *Tree pruning works*

6.40 Para 8.2.5 of the AIA suggests that A detailed schedule of all proposed tree pruning would be produced with annotated plans as part of an Arboricultural methods statement AMS to be provided at a later date. this would include operational standards for all types of pruning and tree felling method according to best practice. I do not have any significant concerns with this proposal.

- *Tree Protection*

6.41 The proposed tree protection as advised in section 8.3 is satisfactory and in accordance with the current industry standard British Standard 5837:2012;

- *The Oakendene Substation Site*

6.42 The draft DCO seeks consent in outline only for the substation element of the proposed development. Design matters are, therefore, reserved for later determination, however, to demonstrate how the proposed quantum of development can be delivered an illustrative layout was submitted.

6.43 It is noted the substation is not a special landscape area or particularly visible from the wider area but there are local considerations of the setting of Oakendene Manor associated landscape parkland; views from PRoW 1786 near Taintfield Wood, towards Oakendene Manor; and the appearance and character of immediate surroundings, which are important considerations. To this extent these matters are to be addressed at reserved matters stage.

6.44 However, the draft DCO and Design and Access Statement does include parameters for the substation site and the design principles with which the detailed design could accord, providing a degree of control over the future design of the onshore infrastructure; as the principles established will inform the detailed design phase as the finalised layout and size of the substation, access tracks and sustainable drainage solutions (SuDS). The illustrative layout, The Oakendene Onshore Substation – Indicative Landscape Plan in Appendix D of the Design and Access Statement, shows one way this could be achieved.

6.45 The Architectural Strategy (determining building colour, texture, and roofline or profile of buildings and roofline) will also be required to soften the visual appearance of the substation in any remaining views to reduce its visibility from the wider landscape and when viewed from the surrounding area.

6.46 To address residual visual impacts through new hedgerow and tree planting within a radius of the substation will help reinforce the character of the landuse and be used to address visual impacts from key views as identified through the ES. HDC believes that without this agreement the residual impacts of the substation would be unacceptable and consequently consider that it meets the test of development consent obligations.

6.47 Lighting requirements (for scheduled maintenance outages or emergencies) within the substation will be directed downward and shielded to reduce glare outside the facility. The principles of lighting design will be informed by the joint guidance provided by the

Bat Conservation Trust and Institution of Lighting Professionals (2018). The lighting design will account for the potential effects on people (residents, road users, walkers and tourists) and biodiversity by taking measures to minimise lighting use, minimise light spill, use most appropriate wave lengths of light and locate lighting in the most appropriate locations.

6.48 Along the A272 outside of visibility splays and access requirements, existing roadside vegetation (trees and hedgerow) will be maintained, and hedgerow height managed to infill any gaps and allow it to grow to an increased height. Increased native woodland planting will be provided to the south of the existing hedgerow to increase roadside screening. The site access road will include a curve or 'S' bend, with planting to prevent a direct line of sight from the A272 of the substation.

7. Air Quality

7.1 Air quality issues have been identified. Clarification is required regarding the extent to which the Air Quality and Emissions Mitigation Guidance for Sussex (2021) was given consideration in assessing and mitigating the emissions, as is the expectation for any major development.

7.2 The overarching principle of the Sussex guidance is to, as far as it is possible, design emissions out of a scheme, and mitigate or offset any residual emissions. Thus, the guidance aligns with the aims of Defra's Clean Air Strategy on reducing emissions to protect health and protect the environment, and the HDC environmental policy, which is why it is essential applicants adhere to its principles.

Construction Phase

7.3 During site clearance, preparation and construction there is the potential for local residents to experience adverse impacts from noise, dust and construction traffic movements. These should be minimised and controlled by the developer and a construction environmental management (CEMP) plan.

7.4 It is expected that the Dust Management Plan to be prepared accounts for emissions of off road construction vehicles. The recommendation would be to ensure all Non Road Mobile Machinery and constant speed engines comply with the requirements of the London Low Emission Zone and the London LEZ Non-Road Mobile Machinery/constant speed engines standards.

7.5 Construction traffic will use the strategic route network in the district. Welcomed is Environmental measure C-158 which proposes the proposed heavy goods vehicle (HGV) routeing during the construction phase to individual accesses will avoid the Air Quality management Area (AQMA) in Cowfold where possible. Proposed routeing set out in Outline Construction Traffic Management Plan (CTMP). Enforcement of the outline CTMP is secured through commitment C-158.

7.6 The key concern is that the Outline Construction Traffic Management Plan (CTMP) does not account for emissions of the on road and off road construction traffic. Section 8.4.11 of the CTMP proposes to use Euro V on road vehicles "or better whenever possible". The emission rates for Euro V heavy duty vehicles are circa 50% higher for PM and NOx compared to those of Euro VI vehicles – so it makes a significant difference what emission standard gets adopted.

7.7 The concern is also that the details of the final HGV routes are not known, and whether those mirror the assumptions used to model the impacts.

Model set up and methodology

7.8 Clarification needed to understand the assumptions used the Assessment Scenario. The concern is that the Assessment Scenario includes assumptions on HGV routing which may not materialise for project implementation.

7.9 Regarding model verification (Appendix 19.1: Full results of construction road traffic modelling), full information is required on the methodology to select monitoring sites for model verification. It is noted that the worst-case site (Cowfold 37) was not used in model verification, neither were a number of other sites. Details are therefore required of the initial verification including Monitored Road NOx Contribution versus Unverified Modelled Road NOx, which monitoring sites were used, and which were removed from the verification process with justification for both. It is recommended that all statistical parameters for model performance including the RMSE, fractional bias and correlation coefficient, be presented to give a full picture of the model performance, in line with the recommendations of the TG(16) guidance.

7.10 Clarification is sought on why the latest LAQM tools such as background maps and Emissions Factors Toolkit were not used in the air quality assessment, given that Revision A of the assessment is dated August 2023.

7.11 Also sought is clarification regarding the choice of meteorological data to model Cowfold. Data from Shoreham station does not reflect the conditions at Cowfold.

Health Damage Cost Calculation.

7.12 The emissions calculation and total calculated value of emissions' health damage cost associated with construction traffic were not included in the DCO Documents.

7.13 Understanding costs is essential to effective and necessary mitigation and Table 19-7 of ES Volume 2, Chapter 19: Air quality confirms that the applicant agreed to "consider the inclusion of an air emissions mitigation strategy". However, the strategy was not included with the DCO submission.

7.14 Air Quality and Emissions Mitigation Guidance for Sussex (2021) takes a low-emission strategies' approach to avoid health impacts of cumulative development, by seeking to mitigate or offset emissions from the additional traffic and buildings. Hence, applicants are required to submit a mitigation plan detailing measures to mitigate and/or offset the impacts and setting out itemised costing for each proposed measure, with the total estimated value of all the measures being equal to the total damage costs.

Air Quality Mitigation Plan for construction phase (air emissions mitigation strategy)

7.15 There is a lack of a standalone Air Quality Plan for the construction phase of the development. The concern is that air quality improvements in the Cowfold AQMA do not stall and that the improvements are continuous and maintained into the future. The Sussex guidance draws on Defra's methodology for the appraisal of impacts produced by a project. It requires that each application is supported by an air quality mitigation plan detailing measures to mitigate and/or offset the impacts and setting out itemised costing for each proposed measure.

7.16 An effective air quality plan would contain the following elements for each proposed measure:

- Costings;

- Performance indicators;
- Delivery timescales.

These are the essential mechanisms that enable authorities to work for the benefit of local communities and public health. It is essential that there is confidence that proper monitoring mechanisms and indicators are established at the outset and reviewed as necessary.

7.17 The proposed Air Quality Mitigation Plan should be informed by local monetisation of air quality impacts. Whilst this may not be a requirement of the National Networks National Policy Statement (NNNPS), this is a matter of local concern, as shown in the local guidance prepared by the Sussex Air Quality Partnership and participating members in 2021. There should be a Damage Cost Calculation for the air quality impacts, and the Transport Analysis Guidance forms the basis for the calculation.

8. Noise and Vibration

Construction Phase

8.1 The project will involve construction works in rural areas where background noise levels will be very low, particularly at night. An accurate assessment of noise and vibration impacts should be based on detailed information on the phasing, sequencing, and duration of construction activities. There is no information as to when this detailed information will become available or the type of information that will be provided.

8.2 The description of the construction works as temporary does not fully reflect the potential for adverse impacts. The construction compounds will be in operation for at least 3 years. Sites along the cable route will also entail construction of haul roads and may host additional works such as cable jointing which further extends the duration of operations at these sites.

8.3 For construction noise the assessment of impact has been undertaken with regard to Annex E of BS5228-1 and particularly the thresholds of significant effects. Annex E details several methodologies for assessing impacts but for all significant impacts from construction noise are only considered to occur above 65dBLAeqT. As noted above, the works will take part in areas where background noise levels are low and therefore adopting this approach may not fully portray the noise impacts from the construction phase. For longer term construction projects lower noise limits should be considered.

8.4 The adoption of the thresholds quoted in Annex E to BS5228-1 as LOAELs and SOAELs is questioned. BS5228-1 does not reference WHO documents and principally relies on publications regarding protection of site workers from noise. The assessment methodology in Annex E states that other project-specific factors, such as the number of receptors affected and the duration and character of the impact, will also determine if there is a significant effect.

8.5 It is important to ensure the potential noise impacts for the receptors are fully understood beyond the narrow confines of BS5228-1. The Applicant should illustrate the potential magnitude of the noise impacts by comparing the predicted construction noise levels to the existing ambient noise levels at each receptor location.

8.6 The methodology for the identification of receptors is not clearly explained. This is important for establishing if all relevant receptors have been identified and factors such as differences in topography have been included in determining the predicted construction noise levels.

8.7 Noise sensitive receptors for short term works such as cable route construction are not considered. These works may be of limited duration, but this doesn't mean the noise impacts should not require assessment and mitigation, particularly when mobile plant such as generators are deployed. The construction of haul roads and cabling works could extend the periods of noisy activity close to sensitive receptors beyond the 10 days presumed for cable route construction.

8.8 Short term works are also excluded from the consideration of cumulative impacts on the grounds these will be of limited duration. Given the uncertainties regarding the potential phasing, duration and impacts of such works this exclusion is not justified.

8.9 Noise impacts from trenchless crossings at night are a concern. Predicted night noise levels have identified receptors significantly above BS5228 threshold screening adopted in the Environmental Statement. It is proposed that screening will be deployed to reduce these impacts. The effectiveness of screening will depend on several factors. These include the height, mass and length of the barrier and the position of noise source relative to the identified receptor. Noise from construction equipment contains particular frequency components and these are not all attenuated to the same degree by a barrier. It should not be assumed the predicted mitigation will be achieved.

8.10 An Outline Code of Construction Practice (CoCP) has been provided which confirms that stage specific CoCP will be submitted along with a Noise and Vibration Management Plan (NVMP). These documents will detail the mitigation measures to be adopted but have yet to be submitted. This results in considerable uncertainty as to the deployment and efficacy of the mitigation measures. Noise levels above the predicted levels will only be addressed retrospectively which would severely limit the ability to resolve such impacts.

8.11 The noise impacts are assessed on the basis that most of the site works will take place in the normal weekday hours (07:00 to 19:00). The need for additional working outside these times should be limited to emergency works only and should not be relied on.

8.12 The proposals for construction noise monitoring are inadequate for a project of this scale and duration. Construction noise monitoring should be undertaken proactively by the developer to ensure that the site works are complying with required target noise limit. Compliance checking should be undertaken regularly at every location where noise sensitive receptors may be impacted by noise arising from construction activities. It should not be for the local planning authorities to resource routine compliance checking of the developer's construction noise targets.

8.13 There are no sanctions or penalties proposed in the draft DCO to deal with non-compliance with the construction noise and vibration targets. The procedure for arbitration set on 15 of the DCO is unlikely to respond effectively to identified non-compliance with the CoCP or NVMP's.

8.14 The Construction Communications Plan should include provision for regular local meetings with representatives for the communities where the construction compounds will be sited. The costs should be met by the developer.

8.15 The volume of HGVs and the consequential impacts on noise levels experienced by receptors is not predicted to be of a level of warrant.

8.16 In terms of construction noise, the draft DCO provides for a written scheme for noise management to be agreed with HDC. This, combined with limited the working hours and

deployment of appropriate mitigation to further reduce disturbance set out in the outline CoCP, should control noise impacts during construction to an acceptable level.

Operational Phase

8.17 From reviewing Table 21-20 'Relevant noise and vibration embedded environmental measures' HDC notes that the following is stated under Commitment C-231 - *The detailed substation design will be built and operated such that the Rating levels (noise emissions plus any character correction) do not exceed the following noise levels at the private amenity space associated with the closest residential receptors*.

8.18 Given the low background noise levels in this part of our District, in particular during the nightime hours, HDC considers that the proposed rated noise levels are too high and are at level where adverse impacts may be expected.

8.19 From reviewing Table 21-38 'Operational noise assessment – Onshore substation Unmitigated' it is apparent that the rated level during the night time hours (2300 – 0700) to be +7 above background at Oakendene Manor, +6 above background at Southlands and +5 above background at Westridge. From reviewing Table 21-39 'Operational noise assessment – Onshore substation Mitigated' it is apparent that even with proposed mitigation the rated levels at Oakendene Manor during the night-time hours are still +5dB above background.

8.20 It is appreciated that report states that in accordance with the IEMA Assessment (2014) that the magnitude of change is 'very low'. However, with the above in mind, BS4142 makes it very clear however that the greater the noise level above background the greater the magnitude of impact, and, that a difference of +5dB is likely to be an indication of an adverse impact.

8.21 It is also noted that the following is stated in section 1.3 of BS4142 - *The standard is not applicable to the assessment of low frequency noise. Information on the assessment of low frequency noise is given in NANR45*. Given the low frequency noise associated with the proposed substation HDC is of the view that an assessment in accordance with NANR45 is required in support of this application.

8.22 Further to the above it is noted that the following is stated *Further discussion was undertaken with regard to low frequency noise. It was agreed with HDC that the assessment methodology within BS 4142:2019 (BSI, 2019) was sufficient to assess the effects of low frequency noise at the nearest noise sensitive receptors. HDC commented that BS 4142:2019 is not applicable to assess ground borne low frequency noise*. These comments remain valid.

8.23 In summary on operational phase, mitigated noise impacts at identified receptors are reliant on specific physical mitigation measures to be adopted at the substation including harmonic filter dampening, dampening and enclosures for transformers etc. Whilst it is understood that such mitigation would be secured where necessary to achieve noise specified noise limits, given the low background noise levels in part of the district, as quantified in the background noise monitoring, and given the impact from low frequency noise, as detailed above, HDC are of the view that the noise impacts have not been fully assessed and that noise levels below the levels as detailed in Commitment C-231 could still result in significant noise impact to residential amenity.

9. Transport

9.1 The focus of this RR is on the traffic and transport implications of the onshore elements of the proposals; the construction of the cable route and associated works; and permanent works including the Oakendene substation and vehicle accesses on the West Sussex transport network.

9.2 The Council endorses the comments of West Sussex County Council (WSCC) as the Local Highways Authority for Horsham District regarding the above matters. It is understood that reviewing the transport modelling work may be subject to further updates from the Applicant. In the first instance, HDC raises the following concerns:

Assessment Methodology

9.3 The assessment has been undertaken in accordance with rescinded and replaced guidance from IEMA, Guidelines for Environmental Impact Assessment of Road Traffic (1993). This was replaced in July 2023 by Environmental Assessment of Traffic and Movement. The ES should be reviewed against the latest guidance and as necessary amended.

9.4 WSCC is content with the base data used within the assessment. This data includes traffic surveys of all routes that will be used by construction traffic.

Assessment of Effects

9.5 For the purposes of the transport network, it is acknowledged that most effects will occur during the construction phase and, as such, will be temporary in nature (albeit for an approximately four-year period). Once operational, traffic impacts will be minimal. Details of permanent, operational accesses, including that serving the onshore substation, are yet to be agreed with WSCC.

9.6 There remain areas of concern relating to transport matters as presented in the DCO submission documents. These relate primarily to construction phase impacts on the West Sussex transport network, and the concern about the measures outlined in the OCTMP (APP-228).

9.7 The number, size, timing, and routeing of HGV (an abnormal load) vehicles is a substantive concern of local communities. HDC is aware of the strong feeling on this issue expressed by parishes at Storrington, Washington, and Cowfold and their local communities. The concerns also relate to the suitability of such vehicles on rural roads and general disturbance from increased level of activity.

9.8 HDC shares concerns over the need for safe access to works and the need to encourage sustainable travel by workers. WSCC's highway assessment of the proposal will address these two matters in greater detail, amongst all other technical transport matters, reflective of their role as Local Highway Authority. HDC defers to the expert opinion of WSCC on whether the proposed visibility splay improvements and swept path diagrams, and proposed delivery numbers across the construction period, demonstrate the development area is accessible safely by way of temporary construction access and access routes.

Mitigation, Compensation and Enhancement

9.9 The focus of the highway assessment provided by the Applicant is on the construction phase, which has been accepted by WSCC given the anticipated increase in traffic flows during this time compared with the operational phase. Although an OCTMP has been

submitted by the Applicant to provide mitigation during construction, there are several concerns set out below.

i) Those relating to the physical construction access arrangements, including the overall number of accesses and the ability to achieve necessary visibility splays at identified accesses (including those to the main construction compounds).

ii) Areas where additional mitigation is necessary, including the provision of road safety audits and the management of traffic on single track roads.

iii) Aspects where clarification is required or where information appears to be missing from the submitted information. This includes numbered accesses being missing or construction vehicle trips being absent from tables within the OCTMP.

9.10 HDC shares concerns over the need for safe access to works and defers to WSCC on whether the visibility splay and swept path diagrams, and proposed delivery numbers across the construction period, demonstrate the development area is accessible safely.

9.11 Additional comment is made in respects of measures within the Outline Operational Travel Plan (OOTP) (APP-227), set out below.

i) In reviewing the submitted information, it is acknowledged that some construction traffic will route through the Air Quality Management Area (AQMA) in Cowfold. For the purposes of traffic routing, this traffic will make use of A-classed roads (the A281, which runs north to south, and the A272, which runs east to west). Notwithstanding the AQMA, considering their classification, these roads are appropriate for construction traffic. Further mitigation measures will nevertheless be expected for the purposes of managing traffic through the AQMA and Cowfold itself, and WSCC expects this traffic to be reduced to the minimum where possible.

ii) Mitigation will need to be agreed for the end-of-life decommissioning. A commitment should be secured as part of the DCO requiring a decommissioning construction traffic management plan to be submitted and agreed with WSCC. This CTMP should be provided and agreed prior to decommissioning works commencing.

9.12 Further mitigation for the purposes of managing traffic through the AQMA and Cowfold could include but not limited to:

- limits on all vehicular traffic in terms of volumes, timings, restricted hours, and duration of movements.
- detailed Phasing Strategy of the project.
- traffic monitoring and management details, with penalties and mitigation set out for exceeding limits.
- co-ordinated traffic flows limit, duration limits, time periods limits (e.g. limits on all vehicular traffic movements and measures to adhere to these limits; confirmation of the size of vehicles to access each part of the construction route network; restriction on movements between temporary compounds to outside the peak hours; requirement upon the applicant to secure agreement on the number of vehicles that can access the temporary compounds during peak hours; provide for HGV timing restrictions to be implemented where access routes coincide with access to school routes and to account for variations associated with the agricultural and tourism seasons;
- measures to ensure HGVs are marked in such a way that the public can associate them with Rampion 2 for monitoring and enforcement purposes.
- pre and post construction surveys to ensure any damage to the highway is remediated.

- review mechanisms should be set up to full range of impacts monitor and unforeseen consequences as the project develops, to review the adequacy of mitigation or compensation measures and adjust as necessary.

10. Socio-economics

10.1 The Development Proposal presents opportunities for local businesses to become part of the on-and-offshore supply chain and provision of indirect services. However, it is not clear whether any local job opportunities would be created through the development to Horsham District, for example during the construction phase. Whilst the DCO provides for an Outline Skills and Employment Strategy document, with a commitment to a Supply Chain Plan, this Strategy does not provide sufficient detail on, amongst other things, tailored local initiatives; outputs; and approach to monitoring. There does not appear to have been any evidenced engagement with education, training and employment support providers based within the district. This will be critical in the delivery of the wider benefits.

10.2 Concerns have been expressed to Horsham District over the implications on rural land-based enterprises during both construction and operational phases, including for agricultural operations once the cable has been installed, i.e., whether it would be buried deep enough, and whether the width of the cable corridor could be justified.

10.3 The ES states that within the permanent easement land operations would be able to continue as normal. The Outline Code of Construction Practice (COCP) sets out how the construction methods to be deployed to ensure drainage patterns are interrupted as little as possible and that, where possible, trenches will be backfilled with onsite arising, with material returned in the order they were extracted. Consequently, to the best of HDC's understanding, impacts on land estate use and/or agricultural activities should be minimised. HDC would urge the Applicant to ensure this is the case through liaison with individual landowners. If the land became sterilised, this could have consequential impacts for the character of landscape, towards food security, as well as tackling climate change and securing ongoing financial stability and viability for the farm holding, should land use change be enforced.

10.4 The ES provides an adequate assessment of effects, except for the possible impact on tourist accommodation and cumulative effects. HDC accept the development would not have significant negative effects on the tourism industry for its own administrative area (as the Outline Public Rights of Way Management Plan sets out measures to manage and mitigate effects on PRoW network) but query if impact on the businesses located in Oakendene Industrial Estate have been sufficiently assessed.

10.5 It is noted access for routine checking and maintenance will be via manhole covers to the buried joint bays, which wherever possible will not be sited under PRoW or within Access Land. This should be extended to a commitment to this applying this also to the Local Green Spaces namely; Washington Recreation Ground, The Triangle, and Jockey's meadow. In the unlikely event that cable repairs and/or replacement is required, this will be implemented via the existing joint bays situated outside of these important green spaces and will not require new excavation. HDC would welcome a Commitment to the Applicant liaison group with Washington Parish to help address any matters arising from disruption to the recreation ground over the construction phase.

11. Historic and Water Environments

Above ground Heritage Assets

11.1 HDC is satisfied all above ground heritage assets within Horsham District have been identified in the document Category 6: Environmental Statement Volume 4, Appendix 25.1: Gazetteer of onshore heritage assets.

11.2 HDC considers there has been an appropriate consideration of impact to designated and non-designated heritage assets. The Applicant has undertaken a comprehensive survey of assets and the impact of the development.

Impact along cable routing

11.3 The cabling through Horsham District will be buried and no above ground cabling infrastructure will remain once the project is completed (except for manhole covers to the buried joint bays). There will be impact within the setting of several listed buildings as described in Volume 4, Appendix 25.7: Settings assessment scoping report. This impact will last the duration of the construction phase of the project. The impact of trenching, service roads and compounds, lighting, vehicular movement, other activity, and noise will have a harmful impact within the setting of various designated and non-designated assets. However, this impact will be relatively short term and have no lasting impact within the setting of the heritage assets.

11.4 The making good of ground and restoration of hedgerows and other landscape features is essential in ensuring there are no long-term impacts once the construction phase is completed. The approach to mitigating construction impact is described in Category 7: Other Documents Outline Code of Construction Practice. Section 4.10 states the principles of reinstatement of land. This approach is agreeable.

11.5 Although there will be short term impact within the setting of the conservation area in Washington Village whilst the recreation ground is partially utilised during the construction phases, this impact will cease once this phase of the work is complete. HDC has no concern regarding above ground heritage in Washington village.

The Oakendene substation

11.6 The Oakendene substation will be visible following completion of the project. The extent of potential visual impact is illustrated in Volume 3, Chapter 25: Historic environment – Figures (Part 4 of 5) This will have an impact within the setting of Oakendene Manor, a grade II listed building, through change within its setting.

Oakendene Manor

11.7 The information contained in Category 6: Environmental Statement. Volume 4, Appendix 25.5: Oakendene parkland: historic landscape assessment describes the history of the house and its parkland. Section 6 describes the significance of the parkland setting in reinforcing the special interest of the listed building. The historic parkland is stated as being of low heritage significance. And makes a moderate contribution to the heritage significance of Oakendene Manor. HDC is satisfied this is an accurate conclusion.

11.8 The potential impacts of the proposed infrastructure are listed in section 7. The mitigation for these impacts have been included in the indicative landscape planting proposals. At this stage HDC considers that the impact will result in less than substantial harm through change within the setting of the listed building, Oakendene Manor. Mitigation for this impact is described in Category 7: Other Documents Outline Landscape and Ecology Management Plan; specifically, section 2. And Category 5: Reports Design and Access Statement; specifically, section 3.4. The principles and intentions of mitigating any harm within the setting of Oakendene Manor should be ensured through inclusion in the DCO.

11.9 Welcomed is provision made in the proposed DCO Order Limits in Works No. 17 (see Onshore Works Plans (Document Reference: 2.2.2) to implement historic parkland style tree planting, to be confirmed at detailed design.

11.10 HDC confirms that, having reviewed the location of designated above-ground heritage assets within the vicinity of the development and evaluated the contribution that their settings make to the significance of the asset, the impact of the development, including the substation, on these would be less than substantial at the lower end of the scale of that category in all cases of the historic environment and individual heritage asserts.

Water Environment

11.12 SuDs has been included into the overall design proposal and the likely impact arising would be minimal, subject to a robust Sustainable Drainage Strategy being required to ensure existing greenfield run-off rate is maintained and the impacts in the locality from surface water are controlled. West Sussex County Council is the Lead Local Flood Authority (LLFA) incorporating Horsham District.

11.13 HDC shares and supports the overarching concerns raised on water environment impacts to the design for the operational drainage at the Oakendene Substation works and that the current Flood Risk Assessment and design proposals for the Oakendene Substation do not truly reflect the winter flooding that occurs at his location, and as identified as Principal Issues of Disagreement, by WSCC in their capacity as responsible Local Lead Flood Authority.

11.14 It is necessary to be confident that the operational drainage is fit for purpose due to its multi-functional purpose as associated biodiversity habitat (wet woodland) and the feasibility to deliver of this, given potential attenuation basin design requirements (cross-section, depth and slope profile) and the implications to requested refinement and fixing of design parameters (developable area, building heights due to potential concrete base and other flood prevention measures) to the development of the substation site.

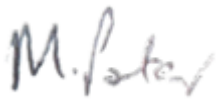
12. Concluding remarks on Horsham District Council's Relevant Representation

12.1 HDC has identified its substantive areas of concerns in the preceding paragraphs of this Relevant Representation. HDC has also identified wide-ranging concerns about the draft DCO. These will be shared with the Applicant in due course and will be set out in the Council's Local Impact Report.

12.2 HDC looks forward to liaising with the Applicant on the draft DCO and proposed Section 106. It should be noted that the Council may wish to be party to legal agreements to secure mitigation for any impacts in Horsham District.

12.3 HDC trusts that this Relevant Representation is of assistance to the Examining Authority and the Applicant. For clarification or further information on any issue raised in this Representation, please do not hesitate to contact Matthew Porter, Senior Planning Officer, Planning, at matthew.porter@horsham.gov.uk in the first instance.

Yours sincerely



Mathew Porter
Senior Planning Officer
Horsham District Council