Date: 08 March 2022

Our ref: 379280

Andrew Jackson Senior Project Manager Arundel Bypass Project

A27ArundelBypass@highwaysengland.co.uk

## BY EMAIL ONLY

Dear Andrew Jackson

# A27 Arundel Bypass Preliminary Environmental Information Report

Thank you for consulting Natural England on the Preliminary Environmental Information Report (PEIR) for the A27 Arundel Bypass. We have welcomed ongoing engagement between National Highways, members of the Defra Family and SDNPA as the project has evolved. Natural England has a number of significant concerns which we wish to raise regarding this scheme. These are outlined below and explained in detail in the Annex appended to this letter. Given the scale of our concerns we wish to highlight a need to work closely with yourselves to seek to resolve these complex matters ahead of the submission of the application for development consent.

Natural England has advised National Highways throughout that the area covered by the Environmental Impact Assessment is of national/international significance. This is reflected not only in the presence of the South Downs National Park and its setting but also because of the area's exceptional importance for biodiversity. This environment contains a suite of key, priority and irreplaceable habitats and species.

Natural England has consistently advised that the location of this scheme within the setting of the South Downs National Park is of national/international significance for landscape and wildlife. Evidence has shown this environment, which consists of a complex of established, interconnected habitats, which are themselves of notable significance, is of exceptional importance to biodiversity. We have advised that an assessment of the impact of severance at an integrated landscape-scale, is critical for this scheme. This is required in order for the scheme to demonstrate how the functionality of this exceptional environment will be maintained.

We have further highlighted that mitigation requirements, in particular for bats, will require considerable evidence to demonstrate efficacy and that the scheme can satisfy the Favourable Conservation Status test. We therefore wish to reiterate that at present we have significant concerns about licensing matters, and our ability to provide LONIs for this highly complex scheme should insufficient evidence be available to demonstrate that mitigation is acceptable. We have advised that this presents a significant risk to the scheme (Letter to



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Highways England 24 October 2019-Response to Public Consultation, Letter to Highways England 02 Dec 2020 Response to PRA, Letter to the Planning Inspectorate 1 April 2021-Response to EIA).

The information provided in the PEIR is very limited. Advice Note 7 of the *Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements* states that a PEI should enable the consultation bodies 'to develop an informed view of the likely significant environmental effects of the development.' The level of detail provided has not enabled sufficient assessment and we have therefore highlighted a number of key areas where it would be helpful to have clarification. Although there is not a unified method for presenting a PEIR, it is notable that the documents do not include clear baseline data, an assessment of habitats that will be directly and indirectly affected by the scheme, or evidence to show that mitigation/compensation is supported by survey evidence. We therefore advise that in the absence of more detailed information, supported by the results of detailed studies Natural England's advice provided at this stage is necessarily limited in scope and detail.

We note that the PEIR states that further information on various topics will be provided in the ES. We strongly advise however that for a scheme of this scale and nature with significant risks to landscape and biodiversity, the provision of early detailed evidence is fundamental. This will help inform a detailed understanding of the impacts, and assessment of how a scheme of this nature in this location can be designed to mitigate impacts to an acceptable level. We would also be happy to work with National Highways to help advise on how it can achieve its environmental commitment to biodiversity net gain.

Natural England's comments provide feedback on the content of the PEIR. We wish however to take this opportunity to advise National Highways on the level of detail that will be necessary in order to demonstrate that the scheme has assessed impacts appropriately. Furthermore, in this landscape of national significance, opportunities to achieve sensitive design which is sympathetic to this landscape are required as mitigation to ensure that the project will minimise impacts to the South Downs National Park. We have significant concerns that insufficient evidence has been provided to demonstrate how this can be achieved. These are critical matters which we consider will need to be addressed before the submission of the application for this scheme.

Natural England would be pleased to work with you and the wider Defra Family and environmental stakeholder network in the coming months.

I trust these comments are helpful and we would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact me <a href="mailto:rebeccapearson@naturalengland.org.uk">rebeccapearson@naturalengland.org.uk</a>

Yours sincerely

Rebecca Pearson Senior Adviser Sussex and Kent Team

## **Annex 1 Detailed Comments**

#### Overview and advice to date

This advice is provided to give context to the complexity of the scheme and the requirement for sufficient detail to be provided in the PEIR to help Natural England assess and advise on the scheme's impacts.

Natural England has advised National Highways throughout that the location of the proposed scheme within the setting of the South Downs National Park is of national/international significance. Evidence has shown the largely undeveloped interconnected habitats including irreplaceable and rare habitats and priority habitats (Habitats of Principle Importance) which themselves support an outstanding assemblage of species.

The interconnected nature of this environment is reflected in the presence of numerous maternity roosts of rare bats including Barbastelle, Bechstein's and the Alcathoe bat. The presence of the rare Greater Horseshoe bat is of particular note as it demonstrates the exceptional importance of this environment and the need for its protection.

We have consistently advised (13 August 2019, 24 Oct 2019, 02 Dec 2020, 01 April 2021) that the impact of severance is overarching in this highly permeable landscape and that it will be critical for the scheme to demonstrate that the resilience of this exceptional environment can be maintained. In these letters we have advised that in order to achieve this a robust assessment of the impacts at an integrated landscape scale will be needed. We have also advised that maintaining the functionality of this landscape is critically important. We highlighted that due to the nature of this environment, mitigating for one impact may incur additional negative impacts, which highlights the need for an integrated approach. This advice was echoed by the Defra family in our single voice letter of 13 August 2019 which set out our concerns regarding the scheme and that assessing and mitigating severance on landscape, biodiversity and the floodplain must be a key principle.

With regard to bats in particular we identified at an early stage that the risk of mitigation efficacy with regard to bat crossings is of particular concern. We highlighted the need to provide sound evidence for the scheme to be licensable. The potentially significant impacts, coupled with a lack of evidence of certain rare bat species' ecology, necessitate a requirement for Natural England to pay particular regard to the Precautionary Principle when exercising its wildlife licensing duties to safeguard species populations. We advised that Natural England would be unable to satisfy the Favourable Conservation Status test as part of its licensing duty unless sufficient evidence can be provided to demonstrate that the identified impacts to bats could be successfully mitigated. Due to the risk that mitigation must demonstrate effectiveness for the range of species found in this location we invited urgent consultation (02 Dec 2020) to resolve to this complex matter.

With regard to landscape, we have highlighted the significant impacts to the setting and special qualities of The South Downs National Park. We have advised that the scheme will sever Arundel from its valley and impact on the National Park's statutory purpose.

# **Overarching comments**

Based upon the above concerns we have set out, we consider that a scheme of this scale and nature requires a bespoke and robust provision of evidence to demonstrate how the scheme will minimise impacts on this complex and special environment.

It is of considerable concern therefore that Natural England considers that the PEIR does not contain sufficient evidence to enable us to have a fully informed view of the likely significant

environmental effects of the development from which to appraise the impact of this scheme. Regarding this we refer National Highways to Advice note 7 of the *Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements.* With regard to the provision of a PIER it states the following:

8.2 PEI is defined in the EIA Regulations 2017 as:

8.3 'information referred to in regulation 14(2) which — has been compiled by the applicant; and is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development)' (Regulation 12(2)(b) of the EIA Regulations 2017)

'8.4 There is no prescribed format as to what PEI should comprise and it is not expected to replicate or be a draft of the ES. However, if the Applicant considers this to be appropriate (and more cost-effective) it can be presented in this way. A good PEI document is one that enables consultees (both specialist and non-specialist) to understand the likely environmental effects of the Proposed Development and helps to inform their consultation responses on the Proposed Development during the pre-application stage.

The following is intended to provide feedback on matters within Natural England's remit and what will need to be provided to address our concerns:

# **Biodiversity-PEIR Chapter 8 and Appendixes**

#### **Baseline Data**

Baseline data are missing from the PEIR and we would wish this to be remedied in the preparation of the Environmental Statement. In the absence of clear baseline evidence (for example maps showing all existing habitats within the receiving landscape and details of direct and indirect impact pathways) Natural England is not able to assess the impacts. Paragraph 8.34 of the PEIR states that baseline data are in production and is unavailable, and that data gathered has been used to inform assessment. It is not clear, however, what the gathered data are. We have advised that a scheme of this nature will require a significant, detailed, and robust evidence base to inform mitigation and advise that is it is not possible to design mitigation in the absence of baseline data.

We advise that we consider the following statement in the PEIR does not reflect the exceptional importance of the habitats within the Study Area, which include ancient woodland and various Habitats of Principle Importance such as Deciduous Woodland, Wet Woodland Traditional Orchards, Hedgerows and Coastal Floodplain and Grazing Marsh. We advise that the PEIR needs to accurately reflect this.

The majority of habitats within the study area comprise intensively managed arable fields or grasslands, exhibiting various amounts of agricultural improvement, and which are therefore of limited ecological importance.

We have, and continue to, advise Highways England that the landscape within the Study Area is of national /international significance, and we advise its importance should be properly reflected in the evidence base.

Of further concern is that the tables included in Chapter 8 do not enable any clear assessment of habitats to be affected within the Study Area (please see below). We advise the assessment should include priority habitats (Habitats of Principle Importance). These habitats, which occur both within the DOL and throughout the study area, are of national

importance. Fig 8.1 and 8.2 are limited to statutory and non-statutory sites and provide no information regarding wider habitats.

We therefore advise that this information is needed to help Natural England develop an informed view of the likely significant environmental effects of the development.

Of particular note is the inclusion of Fig 2.1 showing the scheme with "embedded mitigation". As stated above, this is presented in the absence of any supporting maps or robust survey data within the PEIR to show the existing baseline. Natural England is therefore not currently able to make an informed judgement of the resulting impacts of this scheme, or how the scheme design presented in Fig 2.1 has addressed these. Paragraph 8.34 states that baseline data are in production and are unavailable and that data gathered have been used to inform the assessment. It is not clear, however what these data are.

In order for Natural England to understand the likely environmental effects of the proposal, we advise that sufficient data will need to be made available to clearly demonstrate the impacts of the scheme. We advise that from the limited information presented we consider it has not demonstrated what the impacts are or how the scheme has been designed to avoid and minimise these. In addition, although we have provided advice regarding the need for the impact of severance to be a guiding principle, and for the scheme to show how the functionality of this landscape can be maintained, it is not apparent from the information provided how this key principle of the scheme is being addressed.

Therefore, in the absence of sufficient baseline data, we do not consider the PEIR provides enough information to enable a sufficient assessment of the biodiversity effects of the scheme.

#### Mitigation

# General overview

We advise that the provision of a more detailed assessment of the impacts will need to be provided to ensure that the conclusions regarding mitigation and compensation have the required level of certainty. We do not feel at this stage that there is sufficient information for Natural England to be able to provide in-depth advice on the appropriateness or otherwise of the indicative mitigation and compensation measures and hope that the advice below will be helpful to National Highways in addressing these as the scheme evolves.

Paragraph 8.3.3 states that *embedded ecological mitigation to address potential significant* effects on biodiversity receptors is evolving. The design of these features has been based on professional best practice guidelines and standards, and scientific research available at that time.

Although we agree that mitigation will evolve as the scheme design progresses, the advice provided by Natural England, and in the Defra bodies' single voice letter of 13 August 2019 was that the scheme will need to demonstrate landscape-led integrated principles for mitigation, highlighting severance as an overarching impact. Given that we have provided this advice over a period of time, it is concerning at this advanced stage of pre-application that this is not reflected in the PEIR.

Furthermore, it is disappointing that Natural England has not received the most recent survey data for this scheme. We have advised this will be important to inform the mitigation measures necessary to address the environmental impacts of the scheme. This information is also required to enable Natural England to be sufficiently satisfied that the Favourable Conservation Status of the species affected will be maintained across their natural range

and ensure that the necessary licences can be provided.

## Impact Tables

Although Natural England has highlighted (24 October 2019, EIA Scope 1 April 2021)the importance of a number of Habitats of Principle Importance (priority habitats) across the Study Area. It is disappointing to note that these have not been correctly classified, or are not included in Table 8.4 in the PEIR. Examples include the following nationally important habitats:

- Deciduous Woodland-listed as County Importance
- Traditional Orchards-listed as County Importance
- Coastal Floodplain and Grazing Marsh- listed as County Importance

Furthermore, with regard to the presence of potential chalk steam it is not clear how this rare habitat has been included in assessment of effects and mitigation, this should also include the effect of diversion works.

#### We note that the PIER states that:

The importance assigned to ecological features will be in accordance with the guidance outlined in Table 3.9 of DMRB LA 108 (revision 1). The ES will provide justification as to the importance value assigned to each ecological feature.

However, Table 3.9 of the DMRB guidance clearly classifies all national BAP and priority habitats (HPI) as being of national importance. It is not clear how therefore how any lesser value will be justified in the ES flowing this clear guidance.

Of further note is that paragraph 8.5.72 of the PEIR states that losses to Habitats of Principle Importance within the Study Area (woodland, grassland, hedgerow, trees and ponds) would be compensated via planting of native species.

We wish to highlight that assessment needs to quantify direct loss and indirect impact including compensation to be provided. Very little detail has been provided regarding this. The PEIR states that the localised losses from woodland HPI, river HPI, lowland fen HPI and reedbed HPI represent only a small fraction of their overall extent and is considered unlikely to undermine the conservation status of these. This is not appropriate and we advise that the national importance of these habitats as HPI should be afforded substantive weight with clear information on methods to first avoid and mitigate these impacts and how areas of national importance could be created as compensation . Furthermore, the Impact of severance of these habitats is not included or referred to.

We further advise that very little information regarding the biodiversity impacts of introducing a viaduct into the floodplain (severance, habitat loss, pollution pathways) for example have been included and we are therefore at present unable to provide advice on this impact. This area contains Coastal Floodplain and grazing Marsh Habitat of Principle Importance.

The ES will need to contain robust information regarding how impacts will follow the requirements of the mitigation hierarchy of avoiding and mitigating impacts as a priority. Mitigation measures must be embedded in the scheme design to avoid, reduce, and remediate significant effects as well as identifying the need for additional mitigation measures over and above those embedded in the design.

# Best Environmental Practice

We wish to highlight the following:

8.6.24 Aquatic invertebrates Recommended additional mitigation measures would include pollution prevention measures during Scheme construction. The inclusion of an infiltration drainage system would prevent any additional runoff into the River Arun or other watercourses to provide similar or better-quality drainage compared to existing conditions.

The safeguarding of habitats should be embedded as best practice in order to prevent pollution of waterbodies (for example as part of a CEMP) and not as additional mitigation.

## Integrated Assessment of Mitigation Suitability

We wish to highlight the following:

8.6.10 The cuttings, embankment and verges of the Scheme provide the opportunity to create a mosaic of habitat, comprising woodland, scrub, and species-rich grassland. Woodland planting would increase the extent of these habitat types, focusing on both expanding existing woodlands and creating more diverse edge habitat. Nutrient-poor soils would be used to promote the establishment of species-rich grasslands typical of those found in the wider landscape.

These habitats will be adjacent to the road and therefore will be subject to disturbance and air quality impacts which should be clarified. Furthermore, the provision of woodland may not be compatible with landscape character for example and may also increase risk of mortality for bats navigating the road. This highlights the need for an integrated landscape plan for this scheme.

Of further concern is that a number of mitigation measures and elements required for road itself (e.g. drainage ponds) have been located within Habitats of Principle Importance. This additional impact has not been assessed.

We again highlight the importance of providing an integrated approach to this project.

## Timescales

We wish to highlight that the PEIR states that 30 years of maturation time in order for functionality of mitigation to be provided as a "temporary" impact. We would advise that the scheme needs to demonstrate how it has considered time for mitigation and compensation to be functional, in order to avoid significant environmental impact. Therefore, any habitat creation works (whether for species or habitats) must be to be implemented allow sufficient maturation time for the habitats created to function effectively for target species, and/or to display sufficient functionality. The project should demonstrate no loss of habitat availability during the project's construction. This is of clear importance when considering severance effects.

# Scale of Assessment-Haul Roads and Compounds

We advise that all impacts (haul roads and compounds) need to be included in the environmental assessment and that the assessment of habitats 100m form the centreline should be justified. We refer you to our comments regarding the EIA Scope (1 April 2021) in which we highlighted that previously this assessment was to cover 200m . We advised that due to the nature and location of this scheme it is essential that the surveys to inform the EIA cover sufficient area from which to assess the fragmentation effects of this scheme. We have advised that a landscape-scale assessment is required for this purpose.

## <u>Severance</u>

We have advised that the impact of severance on the suite of established, interconnected

habitats that exist throughout this landscape requires a bespoke level of assessment and design in order for it to be demonstrated that the functionality of this exceptional receiving environment can be maintained. As stated above, we consider this assessment has not been clearly included and therefore we are unable to advise on this critical aspect of the scheme. It appears that the design intends to address the overarching impact of severance with the provision of green bridges and underpasses, and further comments on these structures are provided below.

In addition, baseline information regarding the severance of hedgerows, water courses, and connective habitats in the landscape is not provided in the PEIR. The value of these habitats as wildlife corridors is key and we note that the impact tables provided do not include the impact on functionality.

We wish to highlight that mitigation for East-West severance is not contained in the PIER. Paragraph 8.6.8 and at 8.6.9 state that Landscaping, planting and the creation of bespoke features for biodiversity along the corridor of the Scheme would establish additional east-west links between existing habitats and provide stepping-stones for species. However, this is limited in scale as it does not include crossing of the road itself which will prevent species' ability to travel through the landscape.

# Green bridges

Although we welcome the inclusion of green bridges and underpasses into the scheme the design of these is fundamentally important to demonstrate that how they will operate as mitigation. We are disappointed that the design of these bridges does not appear to follow guidelines set out in Natural England's commissioned report NECR181 ('Green Bridges: A literature review') 1. This literature review was produced to help inform the cost-effective design and positioning of green bridges and similar infrastructure to address landscape, access and ecological severance, connectivity and integration issues on the road and rail transport network, and to maximise the delivery of landscape benefits and ecosystem services.

#### Location

We consider that the location of the proposed green bridges has not been reinforced by evidence to show they are in the correct location, or how they can demonstrate efficacy, for the target species. For example, the bridge presented at Binsted does not appear to include a continuation of habitat linkages to the north.

We note that this structure, which the PEIR states has been designed for mitigation for bats, is not located on a bat flight line, and that it is instead proposed to "funnel the bats" towards the structure. Natural England's commissioned report NECR181 advises that in order to be successful, green bridges should be located on existing flight corridors used by bats.

It is also disappointing that the proposed green bridges appear to have been designed not primarily as wildlife crossings and to mitigate severance but to also accommodate roads and public footpaths. This effectively reduces the footprint of available space for connectivity and therefore significantly reduces their effectiveness as environmental mitigation. We recommend that the design of all the green bridges fully considers the recommendations within the NECR181 report to ensure they are likely to provide effective habitat.

For example, Section 4.10 of the NECR181 report provides some helpful guidance on the design requirements for an effective green bridge, based upon the published data this

<sup>&</sup>lt;sup>1</sup> http://publications.naturalengland.org.uk/publication/6312886965108736

## includes the following:

- Green bridges where the aim is to provide habitat connections at a landscape level should be over 80 metres in width.
- Bridges aiming to achieve connections for a species population should be approximately 50 metres wide.

For green bridges to be truly effective in minimising the severance and barrier effect arising from linear infrastructure projects, they need to be used sufficiently by species to conserve their population size and viability. We therefore advise that the above guidance is used to demonstrate how the scheme will achieve this.

The evidence presented does not show how these will be effective for the target species (bats, dormice, for example) or as mitigation to address overall functionality, and this needs to be urgently addressed.

We welcome that the report highlights consultation with Natural England on these matters and we look forward to working with you to address this.

# Air Quality

The impact of air quality must be fully assessed in the ES. For example, this impact may affect the composition/ viability of habitats in the vicinity of the road, adding to the overall negative effects which need to be addressed.

# Ancient woodland and Veteran Trees

We advise that the impact of both loss and deterioration of these irreplaceable habitats require further assessment. This is explicit in Paragraph 5.32 of the NPS . The Study Area contains ancient/veteran trees, and we note that both direct impacts to veteran trees and indirect impacts to ancient woodland (air quality, hydrology, severance) has not been sufficiently assessed in the PEIR.

# **Enhancement measures and Opportunities**

We advise that a scheme of this nature and scale should seek to secure innovate opportunities for enhancement and net gain. We are disappointed to note the scale of opportunities included does not reflect this. Furthermore, we note that limited information has been included for de-trunking of the existing carriageway. Given the scale of impact for this scheme this area has potential to provide mitigation and enhancement opportunities and should form part of the landscape-scale approach. It is disappointing that this opportunity has not been embedded in the scheme design. Natural England would be pleased to work with you and the wider Defra Family and environmental stakeholder network to realise this ambition in the coming months.

# **Protected Species**

# <u>Bats</u>

With regard to the presence of internationally significant assemblage of bats in this location we advise the following:

We note that the PEIR does not appear to provide mitigation for bats using linear habitats along Yapton Lane and east-west in this location. Transect data has shown bats are using

these linear habitats and it is not clear how this has been addressed.

We have also advised in previous correspondence that it is also not certain whether a bat mitigation licence *could* be granted for certain scenarios. The potentially significant impacts, coupled with a lack of evidence of certain rare bat species' ecology, necessitate a requirement for Natural England to pay particular regard to the Precautionary Principle when exercising its wildlife licensing duties to safeguard species populations.

At present, from the information provided Natural England is not yet able to satisfy the Favourable Conservation Status test as part of its licensing duty. To achieve this, sufficient evidence will need to be provided to demonstrate that the identified impacts to bats from route options can be successfully mitigated for. Based on the current evidence, it is uncertain whether the scheme is licensable. However, we will be pleased to continue to provide advice on these matters to National Highways as it prepares the environmental information needed to inform the scheme.

We have significant concerns that evidence supporting the design and function of the green bridges and underpass is insufficient. An assessment of suitability of mitigation will be required for <u>each species</u> accompanied with a clear evidence base showing that the structures will be used along with robust monitoring and clear effective and timely contingency measures.

# Further protected species advice

In summary the following is required

- A landscape scale assessment of the development and need for a landscape approach to mitigation and compensation.
- The inclusion of over passes and underpasses for bats is welcomed, but detailed survey information is needed in order to an assessment of the suitability of the design and location of these structures. As above.
- There appears to be a significant population of dormice in the Study Area, The report 8-54 states that An adverse significant effect on hazel dormouse is anticipated due to the loss of habitat and potential direct impact. This is anticipated for construction but not operation however no evidence is provided to support this. Very limited information has been provided in relation to this species. This needs to be urgently addressed.
- Water vole have been confirmed to be present in the ditches of the River Arun floodplain at Binsted and Tortington Rife. We note that significant direct effects on water vole during construction activities is recorded. We note the water vole compensation area in Fig 2-1 however from the limited information provided it is not possible to advise on the suitability of these. Furthermore the River Arun Floodplain is a Habitat of Principle Importance so any works in this area should not impact on this habitat.
- We note that Further assessment work is being undertaken with regards to noise levels.
- It is not clear if otter are likely to be affected by the scheme.
- Timescales of mitigation construction and operation and how mitigation will be provided at the point of impact (see Timescales above).

## Wintering and Breeding Birds

We note that two transect surveys of representative habitats across the draft Order Limits were completed. We advise that the limited survey effort requires justification.

## **Statutory Protected Sites**

We welcome the ecological studies that have been undertaken or are ongoing. However, in the absence of the detailed survey results Natural England is not able to provide advice on the likely direct and indirect impacts to designated sites. We would refer you to our response to the EIA Scoping Report (April 2021) for further clarity on the information that should be provided within the Environmental Statement. Natural England will of course be pleased to provide detailed advice in relation to the likely impacts and mitigation measures in the near future once you are able to share the survey results and draft impact assessment with us.

# Singleton and Cocking Special Area if Conservation (SAC) 8.5.19

With regard to Singleton and Cocking SAC we note the assessment's conclusion that until the bat underpass and green bridge design has been agreed with Natural England, it is not possible to dismiss a potential likely significant effect on the favourable conservation status of the qualifying features of the Singleton & Cocking Tunnels SAC; namely Barbastelle bat and Bechstein's bat.

We wish to highlight that We advise that the below statement is not supported by the evidence presented in the PEIR

8.5.22 Landscape planting that increases the coverage of suitable bat habitat and connects favoured foraging and commuting habitat would offset the loss and severance of bat commuting routes.

We advise that the existing landscape is one of established interconnected habitats which the scheme will sever. We have highlighted our concern (above) regarding the level of evidence that has yet to be provided to support mitigation measures for the various species of bat within the Study Area.

## <u>Arun Valley Special Protection Area(SPA)</u>

Summary of designation Table 8.55

The table has omitted to include the Qualifying Assemblage of species which form part of the of the Arun Valley SPA and this should be included.

This section cites that modelling shows how the scheme has addressed impacts to the Arun Valley. Natural England has not seen the results of the modelling so cannot comment on impact to biodiversity features associated with the Arun Valley.

# **Landscape Comments**

In preparing this response the following PEIR and associated documents have been reviewed:

- PEIR Volume 2a.
- PEIR Volume 2b. Chapter 7. Landscape and Visual
- Figure 2.1 Preliminary Landscape and Environmental Masterplan (Sheets 1to 6)
- Figure 6.3 High Value Cultural Heritage Assets
- Figure 7.2 Screened ZTV Overview
- Figure 7.9 National Park and District Landscape Character Areas
- Figure 7.10 Local Landscape Character Areas

## • Figure 7-11 Identified Viewpoint Locations

In addition, we also referred to the letter from the Design Council (July 2021. Ref. DCC/0965) to National Highways which outlines their observations and recommendations to improve the design quality of the scheme.

Natural England welcomes this opportunity to comment on the landscape and visual assessments and related chapters of the Preliminary Environmental Information Report (PEIR). In keeping with our previous comments on the potential landscape and visual effects likely to arise from the development (submitted in November 2019) we will limit our comments to those effects associated with the statutory purposes of the South Downs National Park (SDNP).

We advise that close attention is paid to the comments and advice provided by the South Downs National Park Authority (SDNPA). Their detailed local knowledge of the designated landscape, its special qualities, its management needs and the contribution the Lower Arun Valley makes to the setting of SDNP will provide greater depth and detail than that which Natural England can provide.

Natural England offers its comments and advice without prejudice. Our comments and advice on the landscape and visual effects of the scheme may change as further evidence and information emerges as a part of the EIA process. We may also receive other relevant information from the local authorities, the SDNPA and other sources. Natural England will also be collecting its own evidence to inform our comments and advice and may continue to do so until the end of the examination process.

Our comments are based solely on the documents provided by the applicant and site visits to selected viewpoints undertaken in 2017 and 2018, combined with our experience of advising on other major road schemes located within the setting of nationally designated landscapes.

## **Summary of Natural England Comments**

For landscape and visual receptors associated with the SDNP Natural England welcomes the new routing of the scheme which in the most part avoids direct effects within the boundary of this nationally designated landscape. Except in a very small area direct effects on the prime statutory purpose of the National Park have therefore been removed from the scope of the scheme.

However, we advise that significant adverse indirect effects on the prime statutory purpose of the National Park remain a feature of the scheme. We welcome the selection of a viaduct as the means of crossing the Lower Arun Valley and accept that the visual (and physical) severance this will cause is of a lesser degree than that of an embankment and bridge design. However, significant adverse landscape and visual effects will still result. It is these effects which will adversely affect the setting of the SDNP as this structure will have a transformative effect on the landscape of the Lower Arun Valley and will permanently alter the relationship between it and Arundel, Arundel Castle and the Downs. The design of such a structure has to be sympathetic to this landscape. However, we have significant concerns that scant evidence has been provided as to how this will be realised and how good design, as required by the NPSNN, will be achieved.

These concerns are shared by other bodies far better placed to comment on the aesthetics and functional merits of the design than we are. In July 2021 the Deign Council stated;

'However, we note that the current landscape strategy feels rather abstract

and that it could be better rooted in local landscape characteristics'.

And

'The choice of materials is also of importance to the functionality and long-term soundness of the interventions, and we acknowledge that the design team have had to consider multiple factors, such as the proximity to the sea, in the emerging designs. While this is understandable, it nevertheless has led to a focus on concrete structures which appear ordinary and risk averse. We recommend the team reconsiders this approach and aims for greater creativity in the set of structures along this route'.

It is our view that whilst certain aspects of the scheme have sought to address this observation little evidence has been presented as to how the design of the viaduct has addressed this concern. To provide evidence to inform the design of the viaduct and to help the ExA in their task Natural England expect to see much more detail on the design of the viaduct in the Environmental Statement and how it will complement the landscape setting of the SDNP. Otherwise, it is very doubtful that an agreed position can be reached on this matter.

#### **Detailed Comments**

# **National Planning Policy Statement for National Networks (NPSNN)**

The NPS for National Networks requires a scheme to be of 'good design'. Para. 4.28 stats;

'Applicants should include design as an integral consideration from the outset of a proposal'.

Whilst para. 4.29 stats;

'Visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost. Applying "good design" to national network projects should therefore produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible'.

Considering the importance of the Lower Arun Valley to the setting of the SDNP Natural England wishes to be assured that the requirement for the scheme to 'demonstrates good aesthetics' has been fully incorporated into the design of the viaduct and associated earthworks.

# Geographical extent of the prime Statutory Purpose of the South Downs National Park

The prime statutory purpose of the SDNP is the conservation and enhancement of the natural beauty of the designation. Natural beauty manifests itself differently in each National Park (and AONB) and is often expressed in terms of the special qualities of the designation. The special qualities (7 in total) for the SDNP are set out in the latest Management Plan (2014 – 2019) on page 11 and in greater detail on the website<sup>2</sup>.

As the NPSNN makes clear at 5.154;

<sup>&</sup>lt;sup>2</sup> http://www.southdowns.gov.uk/discover/why-are-we-a-national-park/

'The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints'.

The scheme is located within a highly sensitive part of the setting of the SDNP; we advise that the scheme will have significant adverse effects on the landscape receptors which form this setting and which contribute to the natural beauty of the SDNP. Therefore, Natural England considers that the primary statutory purpose of the national park will be adversely affected by this scheme.

# PEIR Volume 2a

# Lowered Arun Valley Viaduct and Arun Valley Railway Overline Bridge refinement – 2.4.5

We welcome the commitment to consider the vertical alignment height where the Scheme crosses the River Arun flood plain and Arun Valley railway overline bridge. Natural England would wish to see a design which keeps the vertical alignment of the route as low as possible. We believe this would help to reduce the adverse landscape and visual effects of the scheme on the setting of the SDNP.

# **Highway Design – 2.4.7 to 2.4.15**

Whilst we welcome the new design of the Scheme which avoids (as far as is possible) direct effects on the SDNP a significant number of indirect effects on the setting of the park remain. The construction of a viaduct within the Lower Arun Valley will completely change the character of this landscape and sever the visual connection between the valley, Arundel Castle and the Downs beyond. It will be utterly transformative. To sufficiently compensate for this loss of scenic beauty the quality of the viaduct must be of an extremely high order, sympathetic to this place and yet distinct it is own right. So, whilst we welcome the Fundamental Highway Design considerations listed at 2.4.8 Natural England advises that the scheme design must go further that the effective de minimum standards as set out in Design Manual for Roads and Bridges (DMRB) and Manual for Streets (MfS) which we do not think are sufficient to deliver the quality of design required for this location.

Commentary by the Design Council (A27 Arundel Bypass. Design Review. 9<sup>th</sup> July 2021) explores this point in considerable depth, for instance the 2nd paragraph Structures which states:

'The scheme is an opportunity to make a strong architectural statement, and we believe a bolder design approach can increase the architectural value of the scheme, help tie the landscape together, and ultimately aid and de-risk the DCO process'.

And in the 3<sup>rd</sup> paragraph:

'We also encourage the team to take inspiration from existing infrastructure projects of outstanding architectural quality such as the Atlantic Road in Norway, the Barbers Dale Crossing, the Thames Crossing, and the Ribblehead viaduct'.

To this list Natural England would add the Monsal Head Viaduct which is now within the Peak District National Park.

As we see nothing in paragraphs 2.4.10 to 2.4.15 which suggests that the aesthetic quality of the Arun Valley Viaduct has been considered in any detail Natural England proposes that in order to stimulate ideas and design proposals that a design completion be held to help bring forward a design worthy of this landscape. This would help to address some of the concerns expressed by the Design Council such as;

'The choice of materials is also of importance to the functionality and long-term soundness of the interventions, and we acknowledge that the design team have had to consider multiple factors, such as the proximity to the sea, in the emerging designs. While this is understandable, it nevertheless has led to a focus on concrete structures which appear ordinary and risk averse. We recommend the team reconsiders this approach and aims for greater creativity in the set of structures along this route'.

Natural England, as we are sure others will be, is willing to contribute to management of such a competition.

We note the commentary contained in Section 3.5.60 and accept the reasoning on the selection of the viaduct option noting that a viaduct will be 'highly visible' and would 'reduce the severance of the landscape when compared with the embankment option'. We therefore agree with the conclusion contained in 3.5.65.

# **Lighting – 2.4.18**

We note the expectation that street lighting will not be needed other that at the Crossbush junction and western tie-in junction. As street lighting is already present at the former location Natural England would wish the effect of the revisited lighting design on the setting of the SDNP to be no greater, and preferably less, than of the existing lighting design. Our understanding is that there is currently no street lighting associated with the A27 in place at the location western-tie-in junction. Noting the commitment in paragraph 2.4.17 to 'consider impacts.....on landscape and visual receptors' Natural England wishes to be assured that the design of the lighting will not significantly affect the special qualities of the SDNP to which this location currently contributes.

# Existing A27 – 2.4.24

We note that the existing A27 will be de-trunked and retained for local traffic and public transport use. Noting that the A27 to the west of Arundel and within the SDNP is dual carriageway we assume that infrastructure of this scale is more than will be required for local traffic and public transport needs and therefore assume that an opportunity exists to remove much of existing carriageway and return the route to a single carriageway. This would help mitigate some of the adverse environmental effects of the scheme will have in other locations. Natural England will expect to see an ambitious program of works come forward which will deliver a wide range of environmental benefits which can contribute to the conservation and enhancement of the SDNP and the enjoyment of its special qualities.

# Public Rights of Way - 2.4.25

See our comments under PEIR Volume 2b below.

# **Embedded Environmental Mitigation - 2.5.1**

See our comments under PEIR Volume 2b below.

#### **Section 3 Construction**

See our comments under PEIR Volume 2b below.

# **Section 4 Environmental Assessment Methodology**

See our comments under PEIR Volume 2b below

# PEIR Volume 2 b. Chapter 7. Landscape and Visual

#### 7.1 Introduction

Paragraph 7.1.5. For completeness Natural England requests that the 1949 National Parks and Access to the Countryside Act and the 1995 Environment Act are included in the listing provided. Sections of these acts set out the statutory purposes and associated duties of National Parks and are therefore relevant considerations for this scheme.

## 7.4 Study Area

Natural England agrees with the spatial extent of the study used for the LIVA.

#### 7.5 Baseline Conditions.

# Landscape context

We agree with the description of the landscape baseline as set out in sections 7.5.1 to 7.5.10. However, we wish to see commentary included which acknowledges the importance and contribution the landscape of the Lower Arun Valley makes to the setting of the SDNP and how it contributes to the natural beauty of the designation. A sentence within paragraph 7.5.3 acknowledging this fact will suffice although we would prefer to see a detailed description similar to that provided for heritage assets in 7.5.7.

We note the commentary in sections 7.5.11 to 7.5.16 about the future baseline. We are surprised that this commentary is restricted to a description potential of charges which built development may bring about within the landscape and speculation on the effect of plant diseases may have on vegetation cover. The potential that climate change, and adaption measures which may be enacted to counter these effects is not mentioned. Considering the sensitivity of the Lower Arun Valley to such change, and the implications this has for future infrastructure, we find this section puzzling.

We are unsure as to the relevance of the arboriculture section as this simply a describe future trees surveys.

## Published landscape character assessments

Natural England agrees with the listing of published landscape character assessments as set out in paragraphs 7.5.16 to 7.5.28.

#### Visual baseline

We agree with the list of visual receptors as set out in table 7-1 visual Receptors. We agree with the location and classification of the viewpoints used in the LIVA.

# 7.6 Design, mitigation and enhancement measures

# **Embedded mitigation measures**

Paragraph 7.6.1. With reference to the following Scheme-specific design principles.

- c. Optimising the horizontal and vertical alignment of the new dual carriageway to minimise impacts associated with crossing valleys and landform within the landscape.
- d. Positioning sections of the new dual carriageway in cuttings and between blocks of existing vegetation to visually contain much of the road infrastructure and traffic movements in existing views of receptors in close range and more in distant views, including from the SDNP.
- e Designing earthwork slopes to gradients that soften their appearance and achieve good integration with the rural landscape.
- f. Confining lighting on new and improved sections of road within the Scheme to locations where road safety is a priority to minimise the potential for light spill in night-time views.
- g. Designing permanent structures, such as bridges, in a way that minimises their visual impact and achieves good visual appearance, specifically in relation to the proposed viaduct across the River Arun floodplain, designed in line with DMRB CD 351 (Ref 7-46).

We welcome these commitments and look forward to seeing how they have been applied to the final design of the scheme.

In addition, we welcome the following statement of intent:

'7.6.2. The design will continue to be developed to avoid and mitigate adverse impacts and maximise opportunities for landscape integration and enhancement'.

## **Standard Mitigation Measures**

We note the description of Standard Mitigation Measures and request that the Environmental Statement includes a description of how these measures are to be applied to the scheme. Whilst some of these measures are self-explanatory, such as a. others, such as f. require specific detail in order to understand their role in the overall mitigation plan. For instance, Figure 2-1 includes the location of numerous tree planting locations. On page 4 it appears that the proposal is to plant individual trees (willows?) in a few selected locations within the Arun Valley floodplain north of the viaduct. Are these trees intended to provide screening of the viaduct when viewed from the north i.e. from locations within the SDNP?

# 7.7 Assessment of likely Significant Effects

See our comments on Table 7-3 for specific landscape and visual receptors.

We note that the 'LIVA is at an early stage' (paragraph 7.7.1). Yet the applicant has already presented commentary on the significance of the likely effects on landscape and visual receptors (Table 7-3 Summary of potential significant effects). We request clarity on how the information contained in Table 7-3 was arrived at although note that it has already been

used to influence the design of the scheme.

We welcome the applicant's commitment (paragraph 7.7.18) to undertake an analysis of the adverse effects on the special qualities of the SDNP which will result from the scheme. Therefore, we disagree with the applicant statement 'unlikely to be considered significant due to the minor incursions into the SDNP'. See below for further advice on this matter.

Natural England wishes to see a narrative assessment of the effect of the scheme on the special qualities of the SDNP. Natural England suggests that reference is made to the Environmental Statement for the A417 'Missing Link' scheme as to how much of an assessment should be undertaken. We suggest that the consultants (ARUP) who undertook this assessment for National Highways are contacted so that the learning from this assessment is drawn upon.

At paragraphs 7.7.18 and 7.7.19 the applicant has concluded that the only direct effects on the SDNP need be considered when undertaking the analysis of effects on the special qualities of the SDNP. As paragraph 5.154 of the NPSNN makes clear this assumption is wrong. Indirect effects also need to be considered. Numerous NSIP Environmental Statements have undertaken and reported on indirect effects on the statutory purpose of national parks and AONBs. Such an assessment applies to both the construction and operation phases of the scheme. If the applicant is unclear on this point, we are available to provide guidance.

We note the commitment to de-trunk the existing A27 carriageway within the SDNP and accept there will be benefits, in terms of increased tranquillity for instance, which will arise from this. We look forward to seeing proposes as to how the footprint of the existing infrastructure will be reduced in order that the maximize the benefits of these works.

Paragraphs 7.7.2 to 7.7.10. Again, we are unsure as to why a specific section on a single landscape feature, trees, has been included in the chapter on landscape and visual? Such an approach would need to also include sections on other physical landscape features within the study which will experience direct effects such as ditches and other watercourses, hedges, roads, buried archeologically, historic features, field patterns, buildings and other structures as well other species-specific features such as grassland etc.

# **Landscape Effects – Construction**

Natural England advises that the construction phase of the project will result in significant adverse indirect effects on the statutory purpose of the SDNP as the fabric of the landscape setting of the designation in the Lower Arun Valley will significantly altered whilst the construction phase is underway.

We wish to better understand what these effects will be and how National Highways will seek to minimise and mitigate for these effects. From our reading of sections 7.7.11 to 7.7.13 (and with reference to the embedded and standard mitigation measures listed earlier) we fail to see how the evidence presented has assessed the effect on the statutory purpose of the SDNP other than for direct effects. For instance, both the Crossbush and Ford construction compounds are located on the SDNP side of the new route and from our examination of Figure 7-2 do not appear to benefit from any form of screening. They will therefore be in plain sight of visual receptors located within the National Park. We request further information as to how the embedded and standard mitigation measure c. 'Siting compounds and other construction areas sympathetically within the landscape' have been applied in this instance. If reliance on standard mitigation measures b, d, e, and f is being

made for these 2 sites we wish to see this evidence included in the Environmental Statement.

# **Landscape Effects – Operation**

Natural England advises that the operational phase of the project will result in significant adverse indirect effects on the statutory purpose of the SDNP as the fabric of the landscape setting of the designation in the Lower Arun Valley will be significantly altered.

At paragraph 7.7.15 the applicant states that;

'Mitigation of landscape effects includes softening and re-grading of earthworks to more natural forms, and planting to reduce fragmentation, and restore and reconnect landscape features. This would reduce the permanent landscape effects of the Scheme, but impacts resulting from the change in land use, landscape and settlement pattern, and reduction in tranquillity would not be wholly mitigated'.

But in Table 7-3 the applicant states (repeatedly) that

'After the implementation of the EMP, no further mitigation is likely to be required'.

We assume from these 2 statements that the applicant has concluded (prior to the completion of the LIVA) that effects from the scheme cannot be fully mitigated? Yet there is no need to adjust the design any further (perhaps based on the evidence from the LIVA?) because 'no further mitigation is likely to be required'.

Considering the policy tests which this scheme is subject to Natural England is disappointed that the applicant is already moving a position where 'no further mitigation is likely to be required'. Considering the highly sensitive location of the Lower Arun Valley we would expect the design of the scheme to continue to evolve as evidence from the completed LIVA is available and statutory advice provided by Natural England and others is reviewed.

To repeat the advice of the Design Council (A27 Arundel Bypass. Design Review. 9<sup>th</sup> July 2021):

'The scheme is an opportunity to make a strong architectural statement, and we believe a bolder design approach can increase the architectural value of the scheme, help tie the landscape together, and ultimately aid and de-risk the DCO process'.

For our comments on lighting please see PEIR Vol 2a comments, above.

#### **Visual Effects – Construction**

Natural England advises that the construction phase of the project will result in significant adverse indirect effects on the statutory purpose of the SDNP as people who are seeking to enjoy the visual amenity of Lower Arun Valley, and the contribute this makes to the natural beauty of the national park, will be no longer be able to do so.

Natural England advises that the construction phase will result in significant adverse effects on visual receptors.

# **Visual Effects - Operation**

Natural England advises that the operational phase of the project will result in significant adverse indirect effects on the statutory purpose of the SDNP as people who are seeking to enjoy the visual amenity of Lower Arun Valley, and the contribute this makes to the natural beauty of the national park, will be no longer be able to do so.

Natural England advises that the operational phase will result in significant adverse effects on visual receptors.

We note the commentary at paragraph 7.7.27 about potential beneficial effects within the SDNP, through the removal of signage, introduction of planting, and reduction in visible traffic on the existing A27 and welcome this.

We welcome the commitment to explore options to further mitigate the magnitude of visual effects, in particular looking at the design and appearance of the viaduct crossing of the River Arun floodplain. We advise that effects from this structure are not confined to visual receptors but also encompass landscape receptors due to the scale of the viaduct and associated earthworks and the dominating effecting this will have on the character of the Lower Arun Valley.

# **Table 7-3 Summary of potential significant effects**

Our comments solely relate to the contribution these landscapes make to the natural beauty and the setting of the SDNP. Of the 7 landscape areas listed 2, LLCA 11 and LLCA 12, make a particularly significant contribution to the setting of the National Park. Due to the transformative effect the viaduct and associated earthworks (as currently described in the PEIR) will have on these 2 landscapes areas we strongly doubt that mitigation measures, as outlined in the EMP, will be sufficient to result in 'no further mitigation... likely to be required'. Before Natural England and the applicant can reach an agreed position on this point we wish to see more detail on the design of the viaduct and earthworks; specifically, how significant effects on the statutory purpose of the SDNP will be limited and how the design will further the second purpose of the designation; to promote opportunities for the understanding and enjoyment of the special qualities of those areas [the park] by the public.

For the remaining 5 areas and based on the limited information contained in the PEIR we would expect that the proposed mitigation measures outlined in the EMP will be sufficient to reduce the scale of the adverse effects predicted. However, before we agree with the conclusions of the applicant, we wish to see further detailed information.

For visual receptors our comments are restricted to those groups most likely to be experiencing and enjoying the natural beauty afforded by the SDNP. These people do not have to be within the national park to experience this natural beauty, hence our inclusion of the receptor group 'Users of the PRoW crossed by or in close proximity'. For those receptors who are 'Visitors to SDNP and Arundel' we very much doubt that the mitigation measures, as outlined in the PIER, will be sufficient to result in 'no further mitigation... likely to be required'. In views southward from this portion of the SDNP, and particularly from Arundel, the viaduct and associated earthworks will dominate the view of the Lower Arun Valley. Any sense that the landscape of the Lower Arun Valley is pastoral and in part naturalistic will be lost. No amount of mitigation will change that. All that can be achieved is a design the quality of which is worthy of this location.

We note that the applicant has provide generic descriptors and explanations in all instances. We have therefore done the same.

Receptor	Phase	Potential significant effects	Further mitigation to be explored	NE Comments		
Landscape Receptors						
LLCA 4: Avisford Park	Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement		
	Operation	Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement		
LLCA 7: Binsted Rife	Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement		
	Operation	Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement		
LLCA 8: Binsted	Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement		
	Operation	Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement		
LLCA 9: Tortington Rife	Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to		

			justify this statement
Operation	Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement
Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree.
Operation	Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree.
Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree.
Operation	Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree
Construction	Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree
Operation	No commentary offered by applicant. However, we presume that the applicant meant to include the following text;  Permanent adverse landscape effects associated with the	No commentary offered by applicant. However, we presume that the applicant meant to include the following text;  After the implementation of	If so, we Disagree
	Operation  Construction  Operation	associated with the change in land use, landscape pattern and reduction in tranquillity  Construction  Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity  Construction  Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity  Construction  Temporary adverse landscape pattern and reduction in tranquillity  Construction  Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  No commentary offered by applicant. However, we presume that the applicant meant to include the following text;  Permanent adverse landscape effects	associated with the change in land use, landscape pattern and reduction in tranquillity  Construction  Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  Permanent adverse landscape effects associated with the change in land use, landscape pattern and reduction in tranquillity  Construction  Temporary adverse landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  Operation  Operation  Permanent adverse landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  Operation  Operation  Operation  Operation  No commentary offered by applicant. However, we presume that the applicant meant to include the following text;  Permanent adverse landscape effects associated with the change in land use, landscape effects associated with the removal of existing vegetation and changes to landform.  Operation  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.  After the implementation of the EMP, no further mitigation is likely to be required.

		reduction in tranquillity	be required.	
Receptor	Phase	Potential significant effects	Further mitigation to be explored	NE Comments
Visual Recepto	ors			
Visitors to SDNP and Arundel	Construction	Temporary adverse visual effects associated with views of construction activity, including operation of machinery such as cranes, compounds, haul roads and laydown areas into elevated views across the River Arun floodplain	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree
	Operation	Permanent adverse visual effects associated with the introduction of highway, traffic and highway infrastructure into views of the viaduct across the River Arun floodplain.	After the implementation of the EMP, no further mitigation is likely to be required.	Disagree
Users of the PRoW crossed by or in close proximity	Construction	Temporary adverse visual effects associated with views of construction activity, including operation of machinery such as cranes, compounds, haul roads and laydown areas into views, including adjacent to the Church of St Mary's, Binsted and Tortington Manor.	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement
	Operation	Permanent adverse visual effects associated with the introduction of highway, traffic and highway infrastructure into views	After the implementation of the EMP, no further mitigation is likely to be required.	We wish to see further detailed information on the design of the scheme to justify this statement