



Gatwick Airport Northern Runway Project

Environmental Statement

Appendix 9.3.2: Summary of PEIR Responses – Ecology

Book 5

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1 Introduction

1.1 General

1.1.1 This document forms **ES Appendix 9.3.2: Summary of PEIR Responses – Ecology** (Doc Ref. 5.3) of the Environmental Statement (ES) prepared on behalf of Gatwick Airport Limited (GAL). This ES appendix provides details of the stakeholder responses for ecology to the Preliminary Environmental Information Report (PEIR) that was issued in Autumn 2021 to inform the statutory consultation carried out for the proposal to make best use of Gatwick Airport’s existing runways and infrastructure (referred to within this report as ‘the Project’). The Project proposes alterations to the existing northern runway which, together with the lifting of the current restrictions on its use, would enable dual runway operations. The Project includes the development of a range of infrastructure and facilities which, with the alterations to the northern runway, would enable the airport passenger and aircraft operations to increase. Further details regarding the components of the Project can be found in the **ES Chapter 5: Project Description** (Doc Ref. 5.1). Details of how the stakeholder comments have been considered in the ES and where that information can be found is provided in this appendix.

2 Stakeholder PEIR Responses for Ecology and Nature Conservation

Stakeholder	Date	Details	How / where taken into account in ES
Atkins (Commissioned by Surrey County Council)	1 October 2021	We note that PEIR Volume 1: Chapter 19 Table 19.4.2 includes reasonable Zone of Influence for Cumulative Effects Assessment but would welcome a revision to include European designated sites from 20km to 30km and potentially extended for Special Areas of Conservation (SAC) designated for bats should relevant species be identified on the Project site.	PINS Advice Note 10 states that the scope of an HRA should be determined in consultation with Nature Conservation bodies rather than there being any definitive guidance on distances away from a Project at which sites should be considered for inclusion in an HRA. As such, the extent of the Zol has been the subject of extensive consultation with Natural England and already includes both Ebernoe Common SAC (29 km south west of the Project) and The Mens SAC (25 km south west of the Project) as described in ES Chapter 9: Ecology and Nature Conservation (Doc Ref. 5.1) of the ES.
AECOM Noise	1 November 2021	Inspectorate's comments: There is no reference to any consideration of noise sensitive ecological receptors in addition to human receptors. The ES should clearly identify the sensitive receptors considered in the impact assessment and include cross-referencing between aspect chapters, as appropriate.	No sensitive species are located in the Project area. Species are already habituated to high levels of noise from both aeroplanes and traffic. Outside of the Project area, habitats are either highly urbanised (Horley and Crawley) or agricultural rural in nature. Consultation with Natural England and other bodies via the Biodiversity Working Group did not identify any noise-sensitive receptors outwith the Project area.
Natural England	1 November 2021	We note the relevant NPS which have been included in the PEIR and we advise that the following NPPF policies are of relevance for this scheme: 175. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework;	Noted. The current version of the NPPF has been accounted for, a summary of which is included in ES Appendix 9.2.2: Summary of Local Planning Policy – Ecology and Nature Conservation (Doc Ref. 5.3). With respect to ecology, the key tests set out within the Airports NPS are summarised in Table 9.2.1 of Chapter 9 of the ES.

Stakeholder	Date	Details	How / where taken into account in ES
		<p>58 take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries. Planning policies and decisions should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> (a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); (b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; (e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and (f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. <p>The NPPF details the ‘avoid, mitigate, compensate’ hierarchy. That is, measures to avoid impacts (for example through the location, or scheme design and layout) When determining planning applications, local planning authorities should apply the following principles:</p> <ul style="list-style-type: none"> (a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; <p>179. To protect and enhance biodiversity and geodiversity, plans should:</p> <ul style="list-style-type: none"> (a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and 	

Stakeholder	Date	Details	How / where taken into account in ES
		<p>(b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.</p> <p>176. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas</p>	
Natural England	1 November 2021	<p>We note and agree with the identified list of statutory sites that may be affected by the scheme.</p> <p>In addition there are a number of SSSIs which should be included in the air quality assessment.</p> <ul style="list-style-type: none"> ▪ Glover’s Wood SSSI: located 1.62 km to the west of the site ▪ House Copse SSSI: located 4.34 km to the south west of the site ▪ Hedgecourt SSSI: located 4.62 km to the east of the site ▪ Buchan Hill Ponds SSSI: located 4.93 km to the south of the site –broadleaved deciduous woodland is a notified feature of this SSSI. <p>These are sensitive to air quality impacts and therefore the air quality assessment (below) should include them.</p>	Comment acknowledged and these sites are included in the final assessment included in Chapter 9 of the ES .
Natural England	1 November 2021	<p>It is not clear from the information provided in the PEIR how assessments have incorporated the value of existing land and its functionality to adjacent habitats. For example, the change in land use to car parking areas or flood storage compensation areas can significantly affect irreplaceable adjacent ancient woodland habitats via changes in the hydrological regime, and introduction of pollution pathways. The 15m buffer around the car parking areas does not fully address all impact pathways.</p>	Potential impacts to ancient woodland have been considered and assessed in Section 9.9 of the ES. This has included consideration of all potential pathways for such impacts to occur, for example through changes in water regime, recreational pressure, dust etc (Chapter 9 of the ES).
Natural England	1 November 2021	<p>Irreplaceable habitat is afforded robust policy protection in the NPS National Networks and the NPPF. Loss and deterioration are included. It is not clear how the potential deterioration of these habitats has been considered in the PEIR. We advise that the ES should include details of this. If impacts cannot be ruled out, the ES should identify alternative, less damaging options in order to demonstrate the mitigation hierarchy has been followed during the site selection process</p>	Deterioration of ancient woodland has been assessed in Section 9.9 (Chapter 9 of the ES). Table 9.2.1 includes reference to irreplaceable habitats of the NPS and para 180 of the NPPF. Habitat survey reports are described in Section 9.6 and ES Appendix 9.6.2: Ecology Survey Report (Doc Ref. 5.3).
Natural England	1 November 2021	<p>The PEIR does not appear to clearly identify the location of habitats which will be provided to maintain habitat connectivity through the Project Site. We advise that the maintenance of</p>	Figure 3.3.1 of ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3) shows the Ecology

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		connectivity is a key factor for this scheme and that the river habitats and woodland and hedgerows surrounding the site are of clear importance for mobile species such as bats.	Strategy for the site, highlighting the improved connectivity that will result from the NRP. Where necessary, temporary impacts to connectivity are assessed and suitable mitigation incorporated to ensure it is maintained.
Natural England	1 November 2021	We advise that the information currently lacks sufficient detail which will be necessary in the ES with regard to the following: <ul style="list-style-type: none"> Revision of value of existing habitat (see below); Quantity of habitat directly lost; Quantity and location of mitigation and compensation areas proposed to address loss and impacts to habitats (and an assessment of current habitats, and function of these habitats (above)). 	The value of existing habitats is provided in Table 9.6.5 of Chapter 9 of the ES. Details of habitat loss and mitigation and compensation areas are provided in Table 9.7.1 and Table 9.8.1 in Chapter 9 of the ES. Details of Biodiversity Net Gain (BNG) are provided in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
Natural England	1 November 2021	With regard to the above the PEIR presents impacts to biodiversity separately through different phases of the development which makes overall assessment of impact unclear. The loss of woodland and loss of connectivity is especially unclear. Although different phases present different impact pathways and zones of influence, it would be helpful to summarise these in a table to ease assessment of impact. As part of the environmental statement, and to aid the discussions on the appropriateness of the mitigation measures proposed, a habitat balance sheet would be helpful. This should provide full details of the areas of each habitat type directly and indirectly impacted by the Northern Runway and associated infrastructure during construction and operation.	Habitat loss/replacement is set out through each phase within the ES (Figures 2.1-6 of ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
Natural England	1 November 2021	The PEIR states that there will be a small increase in broadleaved woodland on completion of the project however this lacks the detail required to assess whether this is sufficient. Broadleaved woodland is a priority habitat and a robust assessment of mitigation and compensation is essential.	Habitat loss/replacement is set out through each phase within the ES (Figures 2.1-6 of ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
Natural England	1 November 2021	The diversion of the River Mole involves loss of, and disturbance to, habitat of value to biodiversity which provides added functionality as connective habitat through the landscape and an assessment of this should be included in the ES.	The loss of habitats resulting from the diversion of the River Mole have been assessed in Section 9.9 (Chapter 9 of the ES), including the potential effects their loss would have on connectivity.
Natural England	1 November 2021	We further advise with concern that a key part of the assessment is currently inaccurate and will need revising to enable the provision of an accurate assessment of impact for the scheme, The ES must clearly reflect the importance of habitats, the extent of impact (direct and indirect) and demonstrate that any mitigation will be fit for purpose.	The importance of habitats has been reassessed and are shown in Table 9.6.5. The extent of impact and appropriateness of mitigation are provided in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	Natural England is concerned with the approach taken to valuing habitats and species of principal importance and conservation concern within the PEIR. These do not accurately reflect the importance or sensitivity of priority and irreplaceable habitats and we advise that this is addressed.	The importance of habitats has been reassessed and shown in Table 9.6.5 (Chapter 9 of the ES). The importance of Ancient Woodland has been increased to National due to it being

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		For example, ancient woodland, which is an irreplaceable habitat, is valued as being of importance at the regional level. Similarly, habitats and species of principal importance for England under Section 41 of the Natural Environment and Rural Communities Act (2006) are valued at the County or local level (For example broadleaved woodland, hedgerows). Furthermore, the Section 41 habitats appear further subdivided in the table in what appears to be an assessment of quality which is not relevant to their assessment. Given that species and habitats of principal importance are national priorities for conservation in England, the impacts of the development on significant nature conservation assets may be under reported using the valuing criteria within the PEIR.	irreplaceable. Section 41 habitats have been reassessed as being of National value.
Natural England	1 November 2021	Helpful guidance on valuing habitats and species of principal importance is contained within the National Highways DMRB publication which, whilst acknowledging the DMRB is not directly applicable to this scheme, it may be helpful when assigning value to biodiversity assets. The DMRB guidance values priority habitats as being of national conservation importance (Table 3.9). Consequently, Natural England recommends much greater clarity is provided within the environmental statement on the criteria that have been used to value the ecological receptors that are to be impacted by the proposal.	The criteria used to value ecology receptors is set out in Table 9.4.3 of Chapter 9 of the ES. Section 41 habitats have been reassessed as being of National value.
Natural England	1 November 2021	Of concern is that if the importance of habitat type is incorrectly assessed the mitigation measures for loss and impact will be underestimated.	The importance of habitats has been updated with mitigation designed to reflect this, as described in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	These are currently unclear and lack the required level of detail to assess whether proposed mitigation will be sufficient to account for impacts to biodiversity features. For example, the PEIR uses the term substantial or “some” when describing habitat losses and the ES will require detail regarding habitat type, value, sensitivity, quantity of direct loss and indirect impacts to provide an accurate assessment of impact and the mitigation that will be required. We advise therefore that from the information provided it is not possible to accurately assess the impact to biodiversity from the scheme. For example: This area connects to the North Terminal roundabout improvements works area to the east where a substantial amount of broadleaved plantation woodland and some semi-natural broadleaved woodland would have already been lost (prior to 2030). The Longbridge roundabout improvements would therefore further the extent of woody habitat loss and extend the loss in habitat connectivity. Again, detail regarding how impact to priority habitats has satisfied the mitigation hierarchy will be required. Broadleaved semi-natural woodland is priority habitat and robust assessment of avoidance, mitigation and compensation should be included.	Habitat loss/replacement is set out through each phase within the ES (Figures 2.1-6 of ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3)). These have been based on worst-case assumptions, based on the total loss of vegetation within the construction boundary and/or limits of deviation (whichever is greater).
Natural England	1 November 2021	We advise that the ES requires a robust assessment of impact at a landscape scale. We welcome the radiotracking surveys that have been provided for bats which demonstrate the connectivity of the landscape within and surrounding the project. We advise that this information should be more clearly included in assessment of impacts. Surveys encompassing surrounding areas of land of potential importance to bat colonies that may be affected by the development enable the full	Further bat surveys of the surrounding landscape have been undertaken and are reported in Section 9.9 (Chapter 9 of the ES). These have informed where mitigation measures are required, as described in Section 9.9 and Table 9.8.1.

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		impacts of the scheme to be ascertained and subsequent mitigation and compensation can be designed to maximum effect.	
Natural England	1 November 2021	<p>It is clearly of key importance that connectivity is maintained on a landscape scale to allow migration of species and connectivity into the wider landscape through the Project.</p> <p><i>"9.9.191 Replacement native tree and shrub planting would be undertaken in late 2032 to compensate for the loss of habitat and to re-connect the severed habitat. Due to the lack of vegetation during the construction period and the time it would take new planting to establish, there would be a long-term loss of habitat and connectivity."</i></p> <p>We advise that the earliest possible implementation of measures to address severance will be of key importance to this scheme. We note and welcome that hedgerow planting would be undertaken early in the construction phase; this will need to be undertaken as a priority to ensure that the functionality of replaced connective habitat could be achieved as soon as possible and that the conclusion stating this would result in a moderate beneficial and significant effect in the longer term can be justified</p>	The Project has been revised to retain additional habitats where practicable, such as a mature hedge and trees north-east of the South Terminal roundabout. The effects on habitat connectivity are set out in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	Furthermore 9.13.7 states that regarding loss of breeding bird habitat and habitats associated with bats that <i>"This would be a temporary effect until new tree, grassland and shrub planting had established"</i> . We again emphasise the need to provide this as a priority in order to demonstrate that the <i>temporary</i> nature of the loss of connective habitat supporting breeding birds and bats can be supported and that the ES can demonstrate that it can be effectively mitigated through the project.	Some habitat creation is proposed early in the Project where it is not restricted by the construction timetable. The time periods when habitat would be created is included in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	Wetland habitats and habitats associated with the river Mole and Gatwick stream provide connective habitats through the landscape and the impact of severance of this should be included in the ES.	Potential reductions in habitat connectivity from impacts on wetland habitats and those associated with the River Mole and Gatwick Stream have been assessed in Section 9.9 (Chapter 9 of the ES). Opportunities to retain riverine habitats and reduce losses have been sought along the River Mole and the Gatwick Stream as a result of the surface access improvement works.
Natural England	1 November 2021	We advise that [REDACTED] and [REDACTED] bats are listed as Annex II species due to their rarity and therefore their classification as a County level of importance is not accurate.	The importance of [REDACTED] and [REDACTED] bats has been amended to national importance in Table 9.6.5 (Chapter 9 of the ES).
Natural England	1 November 2021	We note that areas [REDACTED] surrounding the Gatwick stream and River Mole appear important as connective habitats for bats for commuting and foraging. Although we are not providing comment on survey detail, we welcome radiotracking data that has identified the use of the area for a number of species including rare [REDACTED] Bats and [REDACTED] bats. Assessing the impact of a project at a landscape scale (above) provides valuable information on the use of the landscape	This has been considered in the assessment of effects in Section 9.9 (Chapter 9 of the ES).

Stakeholder	Date	Details	How / where taken into account in ES
		via mobile species and identifies important areas to be retained as connective features. Adopting a masterplanning approach to design ensures that important features are retained and that impacts can be mitigated. This should form a key part of the ES including further detail on direct/indirect impacts on habitat, functionality of habitat, and mitigation for impacts. This should form part of the overall assessment of impact requested above	
Natural England	1 November 2021	<p>Providing resilience for these species at a landscape scale via maintenance of existing connective habitat networks for foraging and commuting is a priority. This is to ensure that mobile species can continue to move through the landscape during and after project completion. We advise that the following therefore not accurate:</p> <p>9.11.34 The cumulative impact of loss of foraging habitat therefore appears to be negligible. All developments would need to provide compensation for the loss of foraging and commuting habitat through new habitat creation. Therefore, the overall effect on [REDACTED] bats, which are of County value, would be negligible.</p> <p>The crucial factor is that habitats used for commuting and foraging are retained and buffered by suitable mitigation for disturbance effects. For example, habitats supporting these species within 12km of the Mens and Ebernoe common SACs are classed as functionally linked habitats. Methods to mitigate for any impacts to these habitats is contained in the Sussex Bat SAC protocol.</p>	<p>As part of the consideration of cumulative effects, the potential for habitat loss and any associated disturbance effects have been assessed, as reported in Section 9.11 (Chapter 9 of the ES). No requirements for any mitigation relating to these effects for barbastelle have been identified.</p> <p>Consultation with Natural England confirmed that the population of this species around the Project site is not part of those associated with either The Mens SAC nor Ebernoe Common SAC, given the distances involved (>12km in both cases). As such, no impacts to land functionally linked to these sites are possible.</p>
Natural England	1 November 2021	With regard to highly mobile species it is the functionality of habitats on development sites, not only for foraging but as commuting habitats, that is of key importance. We note that this section cites that substantial areas of suitable habitat would be retained within the wider landscape. Unless connectivity is maintained between habitats the functionality of these habitats on a landscape-scale is affected as habitats become isolated. We note that additional species surveys will be provided in the ES.	<p>The effects on habitat connectivity on more mobile species, such as bats, are provided in Section 9.9 (Chapter 9 of the ES).</p> <p>Habitat connectivity is discussed in detail throughout Section 9.9 of the ES. Paragraph 9.9.286 directly discusses the impact this will have on bats.</p>
Natural England	1 November 2021	We note the PEIR uses the term biodiversity offsetting. We advise that NSIPs should be seeking to achieve a net gain in biodiversity to reverse biodiversity decline. The mitigation hierarchy is required to avoid and reduce impacts with compensation as a last resort. Net gain should be delivered in addition to this.	The Project delivers net gain as set out in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
Natural England	1 November 2021	The omission of ammonia modelling means that reasonable scientific doubt remains over the conclusions of no likely significant effect and no adverse effect on integrity of designated sites. Ammonia emissions from road traffic should be included in the ES using the most appropriate methodology available at the time.	<p>Ammonia emissions from road traffic forms part of the air quality modelling included in Appendix 9.9.1 and Section 9.9 (Chapter 9 of the ES).</p> <p>Chapter 13 discusses Air Quality (see ES Appendix 13.4.1: Air Quality Assessment Methodology (Doc Ref. 5.3)).</p>

Stakeholder	Date	Details	How / where taken into account in ES
Natural England	1 November 2021	It is unexpected that cumulative flows on the M3 past Chobham Common and roads through Ashdown Forest do not exceed 1000 AADT, and a review of the data is therefore recommended to ensure that an 'in combination' assessment has been undertaken. For the DCO Environmental Statement, it will be important to understand that a true 'in combination' assessment has been undertaken ie. considering the effect of the Scheme in combination with traffic growth due to housing and employment delivery in the modelled area between base year and assessment year.	As set out in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3), traffic modelling has included three scenarios: <ul style="list-style-type: none"> a 'do minimum' scenario that includes traffic growth to the assessment year but not the Project a 'do something' scenario that is the 'do minimum' plus the contribution of the NRP; and a 'do minimum HRA' scenario that removes traffic growth resulting from local plans/projects within 10km of each designated site. The comparison of 'do minimum' with 'do something' allows for an 'alone' assessment, while the comparison of 'do minimum HRA' with 'do something' allows for the in combination assessment.
Natural England	1 November 2021	Consideration of air quality impacts on SSSIs other than those which are also internationally important sites has not been undertaken. This should be corrected in the ES.	Comment acknowledged and this is addressed in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	It is not clear which deposition rates (forest or short vegetation) have been used in the modelling given the figures presented in the text.	Comment acknowledged and this is addressed in Section 9.9 and Appendix 9.9.1 (Chapter 9 of the ES). For areas of heathland, the short (grass) DV has been used. For areas of woodland, the tall (woodland) DV has been used. This has been clarified in the ES.
Natural England	1 November 2021	There is an absence of full air quality modelling results for European sites in the air quality chapter appendices.	Comment acknowledged and this is addressed in ES Chapter 13: Air Quality (Doc Ref. 5.1).
Natural England	1 November 2021	We advise that the key issues identified within Chapter 9 itself are that the assessment does not take account of the role of ammonia within nitrogen deposition, and that the assessment reported only refers to receptors of international importance and does not discuss impacts on Sites of Special Scientific Interest (SSSI). Chapter 9 notes that there are four SSSIs within 5km of the scheme, and they are all nitrogen sensitive. Glovers Wood is surrounded only by minor roads, which are unlikely to be significantly used by vehicles accessing the airport on a daily basis, but as it is located 1.8km from the end of the runway, aircraft overflights may be of relevance. Hedgecourt SSSI and Buchan Hill Ponds SSSI both lie adjacent to the A264. It is necessary to determine whether this road is part of the Affected Road Network for the scheme, as presently this is unclear. If it is, then air quality impacts should be included in Chapter 9 of the Environmental Statement accompanying the DCO.	Comment acknowledged and this is addressed in the ES. Ammonia emissions from road traffic form part of the air quality modelling included in ES Chapter 13: Air Quality (Doc Ref. 5.1). Mitigation measures adopted as part of the Project for ecology and nature conservation are described in Chapter 9 (Section 9.8). Assessment of effects on SSSIs is included in Section 9.9 of the ES (Chapter 9).

Stakeholder	Date	Details	How / where taken into account in ES
Natural England	1 November 2021	<p>We note that the list of statutory designated sites within 5km of the airport includes the following air quality-sensitive SSSIs:</p> <ul style="list-style-type: none"> Glover's Wood SSSI: located 1.62 km to the west of the site House Copse SSSI: located 4.34 km to the south west of the site Hedgecourt SSSI: located 4.62 km to the east of the site Buchan Hill Ponds SSSI: located 4.93 km to the south of the site –broadleaved deciduous woodland is a notified feature of this SSSI. <p>However, as noted, the assessment presented in Chapter 9 does not discuss air quality impacts on SSSIs.</p>	<p>Comment acknowledged and this is addressed in the ES. Assessment of effects on SSSIs has been included in Section 9.9 (Chapter 9 of the ES).</p> <p>The locations of statutory designated sites located within the search areas are shown in Chapter 9, Figure 9.6.1.</p>
Natural England	1 November 2021	<p>While the role of ammonia has been acknowledged and is to be reflected in the shadow HRA for DCO (and should be in the ES for lower tier designations such as SSSI), its omission at this point means that all the results discussed in this PEIR ES Chapter are likely to underestimate traffic-related nitrogen deposition to some degree, so all will need to be recalculated. As such it cannot be concluded at this point that no reasonable scientific doubt remains regarding their conclusions of no significant effect.</p>	<p>Ammonia emissions from road traffic form part of the air quality modelling included in the ES as set out in ES Chapter 13: Air Quality (Doc Ref. 5.1).</p>
Natural England	1 November 2021	<p>We further advise that this currently only refers to receptors of international importance. SSSIs will need to be included as above. We note that Glovers Wood is surrounded only by minor roads and is unlikely to be significantly used by vehicles accessing the airport on a daily basis. However, aircraft overflights need to be included as the SSSI is only 1.8km from the end of the runway. Hedgecourt SSSI and Buchan Hill Ponds SSSI both lie adjacent to the A264 and the ES will need to ascertain whether this road is part of the Affected Road Network for the scheme.</p>	<p>Assessment of effects on SSSIs has been included in the ES (Chapter 9, section 9.9).</p>
Natural England	1 November 2021	<p>Ashdown Forest is an SAC for its heathland and an SPA for its heathland birds but is also an SSSI for its forest interest features. Therefore, separate modelling should be undertaken for deposition to forest and heathland to fully consider the SSSI impacts as forest has a higher deposition velocity and deposition rates than short vegetation.</p>	<p>Comment acknowledged and this is addressed in the ES where appropriate. Assessment of effects on SSSIs has been included in Section 9.9 (Chapter 9 of the ES).</p>
Natural England	1 November 2021	<p>While the role of ammonia has been acknowledged in Appendix 9.9.1 and is to be reflected in the shadow HRA for DCO, its omission at this point means that all the results discussed in this PEIR HRA are likely to underestimate traffic-related nitrogen deposition to some degree, so all will need to be recalculated. As such it cannot be concluded at this point that no reasonable scientific doubt remains regarding their conclusions of no likely significant effect or no adverse effects on integrity from the scheme alone and/or in combination on Mole Gap to Reigate Escarpment SAC, Thames Basin Heaths SPA or Thursley, Ash, Pirbright & Chobham SAC.</p>	<p>Ammonia emissions from road traffic form part of the air quality modelling included in ES Chapter 13: Air Quality (Doc Ref. 5.1) and inform the assessment of effects in Section 9.9 (Chapter 9 of the ES).</p>

Stakeholder	Date	Details	How / where taken into account in ES
Natural England	1 November 2021	We are concerned about the statements in paragraphs 5.2.7 and 5.2.10 of the HRA report that state that cumulative 'in combination' flows (ie. taking account of all other traffic growth) on the M3 past Chobham Common, and roads through Ashdown Forest SAC, will not exceed 1000 AADT between base year and assessment year, particularly for the M3. This appears to conflict with traffic modelling exercises undertaken for Local Plans in these areas. For the DCO Environmental Statement, it will be important to understand that a true 'in combination' assessment has been undertaken (ie. considering the effect of the Scheme in combination with traffic growth due to housing and employment delivery in the modelled area between base year and assessment year)	Comment acknowledged and this is addressed in ES Chapter 13: Air Quality (Doc Ref. 5.1). Model scenarios to inform the HRA in Appendix 9.9.1 have been completed.
Natural England	1 November 2021	Emissions from aircraft are not discussed at all in this document. Chapter 13 refers to Appendix 13.4.1 in the context of ecological receptors. It is therefore assumed through implication that aircraft emissions are included in the assessment of ecologically sensitive sites, but this should be clearly stated.	The air quality impacts and how they affect human and ecological health are presented and discussed in ES Chapter 13: Air Quality (Doc Ref. 5.1) and corresponding appendices. The assessment undertaken for the ES for construction and operation concludes that no significant air quality effects are predicted using the latest UK air quality objectives at the time of assessment. Aircraft emissions are included in the modelling with their contribution mainly limited to within 5km of the airport. Beyond this, aircraft are at an altitude where their emissions do not materially contribute to ground-level air quality.
Natural England	1 November 2021	4.53-4.56 Concludes construction dust will not result in likely significant effects as construction works will be over 9km from the nearest European site. This appears to be a reasonable conclusion.	Comment acknowledged.
Natural England	1 November 2021	4.5.7 There is no mention of ammonia here, which can damage vegetation even in relatively low concentrations. However, 4.5.16 does acknowledge the role of ammonia. 200m is the standard distance to use for road traffic emissions and that the worst-case impact on any European site will arise within 200m of the roadside.	Ammonia emissions from road traffic form part of the air quality modelling included in the ES Chapter 13: Air Quality (Doc Ref. 5.1) and have been considered in the assessment of effects presented in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	4.5.8. States that according to the traffic chapter there will be no quantifiable increases in vehicle movements on roads within 200m of European sites during construction. Given the distance of the nearest European site this seems reasonable.	Noted
Natural England	1 November 2021	4.5.9. It is noted that The Mens SAC and Ebernoe Common SAC are not within 200m of roads which are likely to be significant daily traffic routes for people travelling to and from Gatwick airport – this is a reasonable assumption.	Noted.
Natural England	1 November 2021	4.5.10 Reference to nitrous oxide should read 'nitrogen oxides'. There is no reference to ammonia in the list of pollutants discussed in this paragraph. Ammonia is not estimated from aircraft but	Comment acknowledged. The reference to nitrous oxide is corrected in ES Appendix 9.9.1: Habitat Regulations

Stakeholder	Date	Details	How / where taken into account in ES
		emission factors for road traffic vehicles are available. Paragraph 4.5.16 later does acknowledge the role of ammonia.	Assessment Report (Doc Ref. 5.3). Ammonia is included in the list of pollutants considered.
Natural England	1 November 2021	4.5.16 The role of ammonia is acknowledged and is to be reflected in the shadow HRA for DCO, submitted as part of the ES. This is commended as there is growing evidence that omissions of ammonia emissions from road traffic may substantially underestimate deposition of nitrogen. Its omission at this point does, however, mean that all the results discussed in this PEIR HRA are likely to underestimate traffic-related nitrogen deposition to some degree so all will need to be recalculated before any firm conclusions can be drawn.	Ammonia emissions from road traffic form part of the air quality modelling included in the ES Chapter 13: Air Quality (Doc Ref. 5.1) and have been considered in the assessment of effects presented in Section 9.9 (Chapter 9 of the ES).
Natural England	1 November 2021	4.5.18-4.5.21 states that the project by itself does not contribute a nitrogen dose exceeding 1% of the critical load at Mole Gap to Reigate Escarpment SAC and Thames Basin Heaths SPA. This will need to be reinvestigated once ammonia is taken into account as that is also a source of significant nitrogen from traffic.	Comment acknowledged and this is addressed in Appendix 9.9.1 (Chapter 9 of the ES).
Natural England	1 November 2021	5.2.5. 'A detailed strategic traffic model has been created that includes the change in traffic flows due to local plans within 10 km of the designated sites and passive growth beyond this'. This is considered an appropriate way of capturing 'in combination' air quality effects and the modelled scenarios are in line with normal practice.	Comment acknowledged.
Natural England	1 November 2021	5.2.7 The paragraph states that in combination flows on roads through Ashdown Forest will not exceed 1000 AADT. This should be checked as the impact from some Local Plans alone are expected to lead to an increase of 1000 AADT in this area, without considering Gatwick. For the DCO Environmental Statement it will be important to understand that a true 'in combination' assessment has been undertaken ie. considering the effect of the Scheme in combination with traffic growth due to housing and employment delivery in the modelled area between base year and assessment year. It would be helpful to explicitly state, within the chapter, which scenarios have been compared to reach such a conclusion.	Comment acknowledged and this is addressed in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3). This includes a full explanation of how the cumulative scenario is derived and which plans and projects are included.
Natural England	1 November 2021	5.2.9 It is not appropriate to dismiss LSE on Mole Gap to Reigate Escarpment from the scheme 'in combination' based on the calculations presented in the PEIR as a key pollutant, ammonia, is not yet being modelled. This will need reinvestigating for the DCO when ammonia is included.	Noted. Ammonia emissions are included in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3). This inclusion still allows for this site to be screened out of further assessment.
Natural England	1 November 2021	5.2.10 'For the TAPC SAC/Chobham Common SSSI component of the Thames Basin Heaths SPA, the only location where the change in cumulative AADT is predicted to exceed 1,000 is along the M3'. It then goes on to state that 'The resulting cumulative nitrogen deposition is <1% of the relevant critical load (Figure 5.2.5) and, as such, no cumulative effects are predicted'. The former could be	Comment acknowledged and this is addressed in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3) with the TAPC SAC/TBH SPA screened in for further assessment

Stakeholder	Date	Details	How / where taken into account in ES
		true since the M3 is by far the busiest road in that area which is likely to be used by vehicles travelling to Gatwick	
Natural England	1 November 2021	Modelling for several Local Plans in the area shows that 'in combination' nitrogen dose on Chobham Common due to traffic growth in various Local Plans will exceed 1% of the critical load, even without considering Gatwick. It therefore seems unlikely that the 'in combination' change in nitrogen deposition on the M3 when Gatwick is considered alongside other Local Plans is less than 1% of the critical load given the SAC is adjacent to the M3. Moreover, this modelling doesn't take account of ammonia from nitrogen deposition. It is therefore recommended that this is reinvestigated.	Comment acknowledged and this is addressed in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3) with the TAPC SAC/TBH SPA screened in for further assessment
Natural England	1 November 2021	5.3.4-5.3.17 We do not disagree with any of the ecological analysis presented in these sections for the results as they currently stand. However, the same issue exists for these conclusions as for the other conclusions highlighted above. The report, correctly, acknowledges in this HRA that ammonia is emitted from some vehicles, and ammonia can be a very significant proportion of roadside nitrogen. While it is acknowledged that the Design Manual for Roads and Bridges does not currently include a method for modelling ammonia emissions, any methodology that excludes ammonia emissions from traffic will underestimate nitrogen deposition due to traffic growth. As such, it cannot be concluded at this point that no reasonable scientific doubt remains regarding the conclusions of no adverse effects on integrity of the Thames Basin Heaths SPA or Thursley, Ash, Pirbright & Chobham SAC.	Ammonia emissions from road traffic form part of the air quality modelling included in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3) with the TAPC SAC/TBH SPA screened in for further assessment
Natural England	1 November 2021	The sensitive sites and habitats are stated in these paragraphs, along with the 'minimum deposition rate' from APIS; however, all nitrogen deposition rates presented are for forest rather than the stated sensitive habitat (and will therefore generally be higher than would be the case if short vegetation was used). It is not clear which rates have been used in the calculations as the results are not presented in full.	Comment acknowledged and this is addressed in ES Appendix 9.9.1: Habitat Regulations Assessment Report (Doc Ref. 5.3). Full details of deposition velocities are provided in Chapter 13 Air Quality and associated appendices.
Natural England	1 November 2021	It is stated that the results for the ecological receptors are presented in Appendix 13.9.1. Whilst modelled concentrations of NOX are presented for 2029 and 2032 in Section 4.2 of the Appendix, modelled nitrogen deposition is presented for only Huntsgreen Wood Ancient Woodland in 2029. It is not clear why this is.	For the 2029 assessment scenario, nitrogen deposition is only presented for Huntsgreen Wood Ancient Woodland as that is the only site with an increase due to the Project which is predicted to be above the air quality standard.
Natural England	1 November 2021	The exact location for which the modelled results apply is also unclear – no coordinates are presented, but it would be assumed that the results correspond to a receptor or transect receptor located closest to a road. However, this does not seem to be the case as, for example, it is stated in paragraph 13.9.79 that the largest predicted NOX concentration in Ashdown Forest SPA/SAC in 2032 is 14.8 µg/m ³ ; however, table 4.2.3 in Appendix 13.9.1 presents the annual mean NOX concentration for Ashdown Forest SSSI in 2032 as 7.5 µg/m ³ .	Comment acknowledged and this is addressed in Chapter 13 of the ES.

Stakeholder	Date	Details	How / where taken into account in ES
Natural England	1 November 2021	This also raises the issue of terminology and what has been assessed. For example, for Ashdown Forest SSSI in particular, woodland is an interest feature of SSSI but not of the SAC or SPA, and the deposition rates which have been used need to be clarified (eg forest or heathland). For Ashdown Forest both forest and short vegetation should be modelled to account for impacts on the SSSI features as well as the SAC/SPA features	Comment acknowledged and this is addressed in in Section 9.9 and Appendix 9.9.1 (Chapter 9 of the ES). For areas of heathland, the short (grass) DV has been used. For areas of woodland, the tall (woodland) DV has been used.
Natural England	1 November 2021	Use of habitat-specific background nitrogen deposition rates Data presented in the PEIR suggest that background nitrogen deposition for forests has been applied in the assessment of heathland. This should be clarified, and the results presented in full in the ES for scrutiny. We advise further information is provided and the methodology is updated.	Comment acknowledged and this is addressed in in Section 9.9 and Appendix 9.9.1 (Chapter 9 of the ES). For areas of heathland, the short (grass) DV has been used. For areas of woodland, the tall (woodland) DV has been used. This has been clarified in the ES.
Natural England	1 November 2021	Ecological transect locations and spacing It is recommended that ecological transects comprise receptor points spaced at 10m intervals, up to 200m, in line with National Highways Guidance, LA105, and that they are modelled at 0m above the ground. Clarification as to whether this methodology has been applied in the PEIR is to be requested. Coordinates of assessed locations should also be presented. We advise that this is included.	Comment acknowledged and this is addressed in in Section 9.9 and Appendix 9.9.1 (Chapter 9 of the ES).
Natural England	1 November 2021	Presentation of air quality modelling results at ecological receptors Concentrations of NOX and ammonia, and the contribution to nitrogen deposition should be modelled for all receptors/transects identified as being sensitive to nitrogen. Inclusion of all results in the report will also allow for scrutiny of the data. We advise that the above information is obtained and the methodology updated.	Comment acknowledged and this is addressed in in Section 9.9 and Appendix 9.9.1 (Chapter 9 of the ES).
Sevenoaks District Council	1 November 2021	It is encouraging to see an intention to retain green spaces and to create a new habitat within the vicinity of the airport. However, SDC encourages Gatwick to work with stakeholders to propose mitigating measures on a wider scale rather than just locally. The potential impact of Gatwick's expansion would result in increased emissions for a wider area, including Sevenoaks District, from passenger journeys.	Landscape mitigation measures are currently restricted to land within or adjacent to Gatwick Airport. No mitigation is currently planned in the wider landscape of the study area. Mitigation measures adopted as part of the Project for ecology and nature conservation are described in Chapter 9 (Section 9.8) of the ES.
Sevenoaks District Council	1 November 2021	The development will increase air pollution and noise impacts on sensitive habitats around the airport and therefore SDC has concerns regarding the impact of these proposals.	The potential effects of air pollution and noise impacts are assessed in Section 9.9 and Appendix 9.9.1 (Chapter 9 of the ES).
West Sussex County Council	1 November 2021	The intensification of development at the Airport will lead to both construction and operational impacts, which will bring about adverse impacts on the environment and local communities of West	The basis for assumptions and forecasting is set out in ES Chapter 12: Traffic and Transport (Doc Ref. 5.1). and

Stakeholder	Date	Details	How / where taken into account in ES
		<p>Sussex, and beyond. Therefore, the County Council cannot support the NRP because there are a number of matters of significant concern that need to be satisfactorily addressed by GAL. These include:</p> <ul style="list-style-type: none"> ▪ understanding the basis for GAL's passenger forecasts and the assumptions that underpin them; ▪ justification for the required supporting infrastructure and its necessity to facilitate the required passenger throughput; ▪ clarity on the assessment and final selection of remaining options for the Central Area Recycling Enclosure (CARE) facility, including proposed technology; ▪ clarity on the socioeconomic benefits, including the number, type, quality, and location of jobs created, the link between current labour supply and jobs created, and local economic benefits; ▪ the need for new homes and associated infrastructure, including County Council services; ▪ concerns related to traffic and transport access, including the impact of other strategic development and forecasting assumptions about mode share for both passengers and staff; ▪ further analysis and scrutiny of impacts on noise and air quality from both construction and operational phases; ▪ concerns about the significant increase in greenhouse gas emissions and impacts on climate change and understanding how airport expansion can be justified in the light of national and international carbon reduction targets; ▪ the need for enhancement measures (including to Public Rights of Way, recreational facilities, and ecological habitats through a Biodiversity Net Gain approach); and ▪ responses to the technical queries raised in Appendix C. 	<p>Appendix 12.9.1: PTAR (and its own appendices). We have undertaken further refinement and development of the models and reviewed the input assumptions and have engaged with WSCC in the course of that work so that there is better understanding of the inputs to and outputs from the assessment process.</p>
West Sussex County Council	1 November 2021	<p>Ecology and Nature Conservation. There are a range of concerns that need to be addressed, including the Zones of Influence, survey areas, air quality impacts, mitigation measures and approach to Biodiversity Net Gain (BNG). If there is any risk of impacts (such air quality, river quality, and noise) extending beyond the site boundary, a broader survey area will be required, which should be based on the Zone of Influence. Surveys of protected species, such as Great Crested Newt and Water Vole, should also extend beyond the project site boundary. Apart from bat surveys, no further justification for survey areas has been given.</p>	<p>The survey area chosen is based on the potential for receptors to be present within the area to be impacted. As such, surveys of ponds for great crested newt, for example, were only undertaken where there was habitat connectivity to suitable terrestrial habitat. Much of the GAL estate is surrounded by busy roads that act as dispersal barriers.</p>
West Sussex County Council	1 November 2021	<p>The proposals will result in an increase in both aircraft and vehicle traffic with associated impacts on air quality. It is understood that air quality impacts on designated sites in the surrounding landscape is being investigated. Discussion is required on whether this should be extended to non-designated sites, such as ancient woodland.</p>	<p>Comment acknowledged and an assessment of the effects on ancient woodland sites is included in the ES Chapter 9, section 9.9.</p>
West Sussex County Council	1 November 2021	<p>A 14-year construction programme will prolong the impacts of habitat loss and, in some locations, mitigation will not be in place until the end of the construction period. It can take several decades for habitat establishment and recovery (longer for natural regeneration) even with a significant level of intervention and intensive monitoring. It is not clear if the limited areas identified for environmental mitigation and enhancement will adequately compensate for the significant loss of habitat.</p>	<p>The approach to mitigation, compensation and enhancement has been the subject of ongoing consultation with both Natural England and wider stakeholders via the Topic Working Groups which has helped refine the final scheme design as detailed in Section 9.8 (Chapter 9 of the ES).</p>

Stakeholder	Date	Details	How / where taken into account in ES
		Mitigation, compensation, and enhancement measures should not be limited to within the airport boundary and further discussions on the approach to these measures is required.	
West Sussex County Council	1 November 2021	GAL report the sustainability goal for biodiversity is to “have a sector-leading ‘net gain’ approach to protecting biodiversity and habitats on the airport estate”. Even though it is not yet mandatory, GAL should adopt a voluntary BNG approach as good practice. If the proposals are to deliver a minimum of 10% BNG, it will require significantly more biodiversity enhancement than is currently proposed.	The approach to BNG is set out in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3). Mitigation measures proposed are discussed in section 9.8, Chapter 9).
West Sussex County Council	1 November 2021	WSSCC would want to see enhancements listed here and a commitment to a minimum of 10% Biodiversity Net Gain (BNG) would be expected.	The approach to BNG is set out in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
West Sussex County Council	1 November 2021	WSSCC would expect enhancements to green corridors and improved habitat connectivity to extend beyond the confines of the airport, along key corridors such as the River Mole and Gatwick Stream.	Improvements to green corridors are to be implemented where GAL have the ability to do so and include land purchased specifically for this purpose at Brook Farm. Some of these will help improve such corridors outside of the Project site. The benefits of the improvements to the flow characteristics of the Mole, for example, will help the condition of the river downstream of the airport.
West Sussex County Council	1 November 2021	Rational for differences in the study area needs to be provided.	The study area for those species that are not mobile or not sufficiently mobile to migrate onto site is the Project site. For those that are more mobile (such as bats, birds, otters etc.) the study area is wider as explained Chapter 9 of the ES.
West Sussex County Council	1 November 2021	Mitigation, compensation and enhancement measures should not be limited to within the airport boundary.	See comments above.
West Sussex County Council	1 November 2021	Fig. 4.2.1c is labelled ‘Existing Location/Environmental Features identified in PEIR’. However, it does not show all the environmental features identified in the PEIR and is therefore misleading. The Phase One Habitat Survey (Fig. 9.6.3), for example, shows additional environmental features such as woodlands, hedgerows and neutral grasslands, which should also feature in Fig. 4.2.1c.	Figure 4.2.1c (ES Chapter 4: Existing Site and Operation (Doc Ref. 5.1) identifies the landscape-level features present. Figure 9.6.3 (Chapter 9 of the ES) provides more detail.
West Sussex County Council	1 November 2021	WSSCC would expect the ES to include a long-term site/habitat management plan covering all the existing and proposed areas of biodiversity interest.	An outline LEMP is provided with the submission (Appendix 8.8.1 of the ES) that provides details of proposed management of the site post development.

Stakeholder	Date	Details	How / where taken into account in ES
West Sussex County Council	1 November 2021	A clear plan or strategy for biodiversity monitoring should be presented in the ES. This should include monitoring of the condition of key habitats and population monitoring of key species.	An outline LEMP is provided with the submission (Appendix 8.8.1 of the ES) that provides details of the ecology strategy for the site.
Environment Agency	15 November 2021	If a refit occurs to the existing dual box culverts, a mammal ledge should be provided within the whole length of the culvert (old and new)	A mammal ledge will be included, if possible, within the final design.
Environment Agency	15 November 2021	A River Habitat Survey is conducted for the sections of the river to be diverted/affected by flood storage reservoir exits/new culverts so that we are aware of what may be lost. River Habitat Surveys are an approved and standard method of obtaining information about channel form and function. These surveys should be repeated into the future as continued monitoring so that changes can be identified.	A BNG approach has been adopted to survey the river corridor and is presented in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
Environment Agency	15 November 2021	We also recommend that an assessment is conducted for the current likelihood for fish to pass through the runway culvert.	The results of the fish survey are presented in Section 9.6 (Chapter 9 of the ES).
Environment Agency	15 November 2021	It would be recommended for biodiversity reasons that the new diverted watercourse could be free of netting.	The locations where netting would be used have been determine by wildlife hazard management where it is required to minimise the wildlife strike hazard.
Environment Agency	15 November 2021	It would be recommended that the Biodiversity Net Gain tool is used to assess impact on biodiversity.	The Biodiversity Net Gain assessment of the Project is provided in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3).
Westerham Town Council	17 November 2021	We believe that the position is similar to someone saying that they're about to cut down 100 large mature trees but will replant 10 new trees in their place. In Gatwick's case they will increase the amount of road traffic and associated pollution within the local area, will increase noise levels and overall disturbance, will take up more space for Gatwick as a whole, etc, etc and to counter this will do a small amount of work in relation to the local ecology. The latter does not balance the former.	The ES addresses vegetation loss, mainly as a result of the A23 improvements, and the potential for replanting. The Project design has developed and the DCO will include several publicly accessible green spaces created either through the greening of existing developed areas within the airport or the diversification of land outside of the airport through habitat creation and creation of public access. The land will provide a significant increase in green space for the local community.
Tandridge District Council	20 November 2021	The study area includes a 5km buffer for nationally and locally designated sites, a 10km buffer for bats and otters and a 2km buffer for other protected or other notable species and as such extends within our administrative area. Concern is raised regarding the data used in relation to Surrey which is from 2016, and it is suggested that more up-to-date data is available and should be used. It is highlighted that the SNCI list has been updated since 2016 and that not all SNCIs within the 5km buffer have been considered. It is also noted that not all the Biodiversity Opportunity Areas (BOAs)	Up to date data from all sources (including SBRC) has informed the ES And any additional receptors have been included in the assessment. The full desk study is provided in ES Appendix 9.6.1: Ecological Desk Study (Doc Ref. 5.3)

Stakeholder	Date	Details	How / where taken into account in ES
		affected by the Project site have been considered eg the River Mole (plus tributaries) BOA. Details of the BOAs covering Surrey are available online.	
Tandridge District Council	20 November 2021	It is noted that one of the issues is the effect of nitrogen deposition in relation to sensitive receptors, which with respect to our district primarily relates to ancient woodlands, of which there are a number in proximity to this site. However, as an assessment of the effects of air quality on ancient woodland is to be included in the Environmental Statement, it is not possible to assess the impact at this stage. It is also noted that GAL has not included the third runway at Heathrow within the cumulative assessment for ecology. It is considered that the worst-case scenario should include this element.	Nitrogen oxide (NOx) concentrations are reported for ecological sites across the study area including ancient woodland sites in Chapter 13 of the ES and associated appendices. Nitrogen deposition has only been reported for ecological receptors at which NOx concentrations are above the air quality standard of 30µg/m³ with an increase in NOx concentrations between the without and with Project scenario.
Henfield Parish Council	22 November 2021	The landscape and ecological proposals show an intention to support nature, but should go further than just retention and aim for a maximum net increase. The hotels and offices should consider having green (planted/living) roofs and walls to further enhance the opportunities for biodiversity and carbon dioxide capture. The retention ponds should be future-proofed to cater for scenarios of very heavy and sustained rainfall. We are concerned that any further building in this area will worsen the already increasing level and frequency of flooding we are experiencing in this part of Sussex. Therefore, close attention to this aspect will be needed. We also are concerned that, although we know Gatwick is not directly in the North Sussex Water Catchment area that is affected by Natural England's Water Neutrality statement, that the knock-on effects of building, of earthworks and of increased demand for water from associated housing and commerce on our water area. This may need further consideration.	The approach to BNG is set out in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3). The Project will comply with national planning policy and consequently will include mitigation measures (additional drainage attenuation tanks to store additional runoff and floodplain compensation areas to store displaced fluvial floodwater) to ensure that there is no increase in flood risk to other parties, including an allowance for the predicted impacts of climate change. Further information is available in the Flood Risk Assessment reported in Chapter 11 of the ES. Liaison has been ongoing with Sutton and East Surrey Water who have stated that they can supply the projected demands of the Project. Outwith the Project, Gatwick's Decade of Change programme will reduce water usage by 50% by 2030 reducing the airport's demand on sources of supply.
Henfield Parish Council	22 November 2021	Restoring land to its previous use is not always a high enough target. Damage to the natural biodiversity from building work could have long term effects on some habitats, and it can take many years for hedges, woodland areas or soil health to be restored to provide their previous levels of biodiversity. The lighting plan appears to be in development, but we hope that recent research showing the detrimental effects of increased lighting at night on a very wide range of insects and bats is considered so that the negative effects of more lighting are minimised or eliminated.	The approach to BNG is set out in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3). The operational lighting framework is set out ES Appendix 5.2.2: Operational Lighting Framework (Doc Ref. 5.3) . The principles of lighting during construction are set out in ES Appendix 5.3.2: Code of Construction Practice (Doc Ref. 5.3) .
Speldhurst Parish Council	24 November 2021	Any proposals for development of any sort should be consistent with maintaining green space and preserving and protecting important environmental and community assets.	The ES assessed the potential for loss of green infrastructure and open land and impacts on landscape and townscape character, together with the benefits of providing green space and green and blue infrastructure. Landscape mitigation measures will incorporate replacement planting, new publicly

Stakeholder	Date	Details	How / where taken into account in ES
			accessible green space and environmental enhancements. The adverse and beneficial effects on landscape and townscape character are assessed in Chapter 8 of the ES.
Ebernoe Parish Council	26 November 2021	Ebernoe Parish Council would object on the following grounds: Incessant flights from Gatwick already significantly degrade the noise environment in the National Park. In particular, night flights are particularly intrusive from a noise perspective and also involve significant light pollution from landing lights in the Dark Sky reserve and will affect the bat population in Ebernoe NNR	The parish of Ebernoe lies in close proximity to Petworth House in the South Downs National Park. Petworth forms a location which has been assessed in terms of effects on the perception of tranquillity in nationally designated landscapes. There are currently 2 daily Gatwick overflights and 11 non-Gatwick daily overflights in this area. There will be an increase of 0.3 overflights in this location as a result of the Project. The impact on the perception of tranquillity, including dark skies, as a result of the change in overflights is considered to be negligible in the ES. No significant effects on the character and special qualities of the national park or people's perception of within the national park are considered likely. This would also mean there would be no impacts to bats within the NNR.
Kirdford Parish Council	26 November 2021	The rebuilding of the emergency runway as a second runway would require, by Gatwick's own documents, major flood defences in diverting the River Mole and disposing of runway water. The concreting & tarmacking of a new runway and taxiways (28) removes the biodiversity of nature, and adds to flooding risk within the area. At a time of global warming and increased flood risk, this is clearly not acceptable. This project would also disrupt the species connectivity corridors and wildlife framework for which no schemes can mitigate. The huge changes to the roads feeding Gatwick would also destroy much of the biodiversity in this area of West Sussex. We strongly oppose the building of this runway and taxiways.	The Project will comply with national planning policy and consequently will include mitigation measures (additional drainage attenuation tanks to store additional runoff and floodplain compensation areas to store displaced fluvial floodwater) to ensure that there is no increase in flood risk to other parties, including an allowance for the predicted impacts of climate change. Further information is available in the Flood Risk Assessment provided in Chapter 11 of the ES. The assessment of effects on biodiversity are included in Section 9.9 (Chapter 9 of the ES).
Leigh Parish Council	26 November 2021	These measures do not go far enough to offset the massive environmental impact of Gatwick's proposals. The increase in air pollution and the impact on sensitive habitats not only at the airport but throughout the South East will damage for ever our natural environment. This is totally unacceptable.	The air quality impacts and how they affect human and ecological health are presented and discussed in Chapter 13 of the ES and corresponding appendices. The assessment undertaken for the ES for construction and operation concludes that no significant air quality effects with respect to the natural environment are predicted.

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Waverley Borough Council	26 November 2021	Proposed environmental areas small in comparison to the overall size of the airport and areas of hardstanding. Ecological area close to northern runway and aircraft are likely to disturb wildlife through noise and air pollution. The benefit of this ecological area is questionable.	Areas of habitat creation have been located where they compensate for losses resulting from the Project and where they provide the greatest benefits for the receptors affected. Details of mitigation measures are provided in Section 9.8 (Chapter 9 of the ES).
Waverley Borough Council	26 November 2021	The proposals would disrupt ecological corridors in relation to diverting the River Mole.	Whilst there may be some short-term disruption to the Mole during construction, the long-term benefits of the proposed diversion with respect to both length of river valley and flow characteristics will have significant long-term benefits for the river and the flora/fauna it supports, as assessed in Section 9.9 (Chapter 9 of the ES).
Brockham Parish Council	28 November 2021	Of concern to the Parish Council is the plan to redirect the River Mole and the effect of such changes on the potential for flooding in the village. With increased development of the airport and consequent local development, the characteristics of the river would be expected to change. It is unlikely that manipulation of the landscape and ecology would mitigate the environmental damage caused by increased Gatwick activity.	The River Mole diversion works will affect a previously engineered section of the water course within the centre of the airport. The Project will provide an opportunity to improve the alignment to increase diversity, river profiles and opportunities for planting and habitat types. The character and function of this section of the river will be improved as assessed in Section 9.9 (Chapter 9 of the ES).
Brockham Parish Council	28 November 2021	We are also concerned about the wider impact as the Environment Bill requires development to have an overall positive impact on biodiversity and the environment. It is not clear how expansion of Gatwick Airport, with a 35% increase in flights, additional land-take off and wider impacts can have a positive impact. The development will increase air pollution and noise impacts on sensitive habitats around the airport which are unacceptable.	The approach to BNG is set out in ES Appendix 9.9.2: Biodiversity Net Gain Statement (Doc Ref. 5.3). The potential effects of noise and light on sensitive receptors are considered in Section 9.9 Assessment of Effects (Chapter 9 of the ES).
Salfords and Sidlow Parish Council	28 November 2021	The proposed Northern Runway Project would have a serious negative impact on the landscape and ecology of the area both within and beyond the airport boundary.	The ES identified significant adverse effects on Pentagon Field as a result of the proposed decked car park which has since been removed from the Project. No other significant effects were identified on any landscape or townscape character area within the study area as explained in Chapter 8 of the ES. The ES has identified that the majority of the effects on biodiversity have been mitigated although significant adverse

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			effects remain as a result of the surface access improvements, as set out in Section 9.9 (Chapter 9 of the ES).
Forestry Commission	29 November 2021	We are pleased to note that the plans have taken into account the value of ancient woodland, and are respecting the minimum 15 metre buffer zone advised in our joint Standing Advice with Natural England on development affecting ancient woodland.	Noted
Forestry Commission	29 November 2021	We take note of the commitment to use dust suppression techniques to avoid impact on the woodlands. We ask that any further comments Natural England make on the effects of dust, noise and air pollution effects on ancient woodland are considered, and consider a larger buffer zone around ancient woodland which is likely to be most impacted by these effects.	The potential for a larger buffer has been reviewed during the design, in consultation with Natural England and other stakeholders and has been applied for most working areas in proximity to ancient woodland. Impacts on ancient woodland from other activities has been reported in Chapter 9 of the ES.
Forestry Commission	29 November 2021	We note the recognition that replacement of the loss of broadleaved woodland with replanting is a long-term plan, and that in the interim there will be a loss of habitat. In addition to the on-site replacement planting, we would suggest compensatory (off-site if needs be) woodland to be created in advance of works starting to help reduce the long-term impact of woodland loss.	Woodland planting would be undertaken within mitigation areas outside of the highway planting, as appropriate considering aircraft safeguarding. Planting would be undertaken in advance of the loss of woodland along the highway (Table 9.8.1: Mitigation and Enhancement Measures, (Chapter 9 of the ES)).
Forestry Commission	29 November 2021	All tree stock should be UK-grown where possible to reduce the carbon footprint of supply, and also to prevent importation of pests and diseases via imported stock. Vigorous biosecurity should be enforced throughout, from the robust use and checking of plant passports, to on-site biosecurity methods.	Noted. Such measures have been included in ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3).
Reigate and Banstead Borough Council	30 November 2021	The widening of the A23 road which runs adjacent to Riverside Garden Park, and the loss of a sliver of land from the park will harm the character of the park. In addition, it's clear from the information provided that significant development at the airport will be towards the north of the site, along with much of the disturbance and likely ecological impacts that this will entail.	The potential for such impact from land take within the Park is recognised and is fully assessed in Section 9.9 (Chapter 9 of the ES) s are the ecological effects of disturbance.
Reigate and Banstead Borough Council	30 November 2021	Despite assurances that the proposals contain a strategy to retain green space and important environmental assets (including hedgerows, etc) the ecological assessments set out in chapter 9 of the PEIR include phase 1 studies that list various designations, but do not include Riverside Garden Park or Gatwick Stream, despite their location very close to the northern part of the site and to planned accessway widening works (some of which will encroach upon the park). The park should be included in the non-designations list at 9.6.1. We also note that the Gatwick Stream Flood alleviation measures will not be started until 2032, with the works lasting until 2038 (para 20.4.26) and we seek to understand how the ecology will be affected both during the road widening works and then during the flood alleviation works.	At the time of writing the PEIR, neither Riverside Garden Park (RGP) nor Gatwick Stream had formal designations. The Gatwick Stream Flood Alleviation works have been removed from the Project. Potential effects on Riverside Garden Park will depend on the final design for the carriageway works in that area, particularly at the North Terminal junction. This is being designed to limit any vegetation loss within the park. Any potential effect are assessed in Section 9.9 (Chapter 9 of the ES).

Stakeholder	Date	Details	How / where taken into account in ES
Reigate and Banstead Borough Council	30 November 2021	Some studies were carried out for aquatic macroinvertebrates (9.4.57) and some fish studies were also carried out (9.4.58), which were noted to be abundant (9.6.132). The assessment notes that the communities of macroinvertebrates are indicative of 'moderately polluted conditions' (9.6.127), perhaps due to low-flow conditions. And it is noted that the Stream may be obstructed by discharge from a storm water outlet (9.6.129). Pollution and sediment control measures are noted to be implemented (9.9.298) which would be welcomed but greater clarification is sought along with how this would be monitored.	Actions to control pollution and sediment discharge will be monitored via the methods described in the draft Construction Environmental Management Plan (CEMP).
Reigate and Banstead Borough Council	30 November 2021	The PEIR excludes the area from its hedgerow survey (9.4.25), which seems inappropriate given the existing hedgerows and proximity to road widenings proposed.	Surveys were undertaken of all species-rich hedgerows within the Project site boundary (para 9.4.25).
Reigate and Banstead Borough Council	30 November 2021	Watercourses 'in the vicinity' of the project area were assessed for water voles and otters (9.4.50), but it doesn't mention whether the Gatwick Stream was assessed. Clarification is sought as to whether the Gatwick Stream was considered as part of the ecological surveys.	The Gatwick Stream was considered in all surveys within the Project site, including those for water vole and otter, as described in Section 9.6 (Chapter 9 of the ES).
Reigate and Banstead Borough Council	30 November 2021	The PEIR stated that as a result of the flood compensation measures it would be possible for habitats and/or protected species to be negatively affected (9.6). Mitigation for this would therefore be expected.	Details of mitigation measures incorporated into the Project with respect to the creation of the flood compensation areas are provided in Section 9.8 (Chapter 9 of the ES).
Reigate and Banstead Borough Council	30 November 2021	The flood compensation scheme will be monitored, including for effects upon species such as otters (9.9.290) however we would want details as to how this will be undertaken, when and by whom and how this will be reported.	Details of such monitoring are described in ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3).
Reigate and Banstead Borough Council	30 November 2021	Watercourses 'in the vicinity' of the project area were assessed for water voles and otters (9.4.50). For clarity did this include the River Mole?	Yes, the River Mole was included in surveys for water vole and otter (Chapter 9, paragraph 9.6.86).
Reigate and Banstead Borough Council	30 November 2021	PEIR chapter 9 notes that the proposals avoid harm to biodiversity conservation interests, introduce sufficient mitigation, and make use of compensation where there is no other alternative (as required by the NPS). RBBC would ask to be involved in the development of the proposed mitigation measures and ask how this will be monitored. At present details are only high level.	GAL's engagement on this issue to date has been via the appropriate Topic Working Group to which RBBC are invited. However, specific ecology engagement has also been possible, as the scheme evolved to ensure RBBC's suggestions could be taken on board.
Reigate and Banstead Borough Council	30 November 2021	We note that the Habitats Regulation Assessment Report is buried in Appendix 9.9.1. Given the importance of these assessments we are surprised that this was not woven into Chapter 9 as it provides an essential component.	A separate appendix for the HRAR ensures that this issue is addressed comprehensively in a single location to avoid duplication. The chapter itself references and summarises the necessary elements of the HRAR in section 9.9 (Chapter 9 of the ES).

Stakeholder	Date	Details	How / where taken into account in ES
Reigate and Banstead Borough Council	30 November 2021	GAL frequently remind local planning authorities of the risk of bird strikes associated from new development but note that there will be a number of flood mitigation ponds introduced across the proposal site. Greater clarity is sought as to how larger birds will be deterred from using these ponds.	None of the flood compensation areas are designed to hold water for longer than 48hrs; they have specifically been designed to not be ponds. The NRP Project Team have consulted extensively with GAL's Safeguarding team to ensure that all such features are acceptable from a bird strike risk perspective. GAL have an existing bird hazard management plan. This will be expanded to include any new flood mitigation area, in consultation with GAL's Safeguarding team. It is anticipated that measures will be similar to those on other such features (ie netting and appropriate management of surrounding vegetation).
Battle Town Council	1 December 2021	Landscape and ecology The Council applauds the attempts to make a green environment, but it cannot compensate for the damage that will be done if the project goes ahead. If the project does go ahead, Council ask that the authority takes the opportunity to develop a wildlife habitat that would otherwise not survive in the geographical area.	Wildlife habitats would be created appropriate to the conditions within the Project boundary and to mitigate, compensate and enhance the habitats already present thereby limiting opportunities to create habitats not already present. Choosing landscaping not suitable to the environment could incur additional environmental impacts and would be a high risk of failure.
Battle Town Council	1 December 2021	Land use: overall If the land referred to is green space, then Members feel that it should not be used because it will take years to recover. However, if it is brown field land, then the land should be improved with a 10% net gain, rather than just restored.	Much of the Project site is associated with the airport and comprises developed land. This is where the majority of the airport improvements would occur. Where there is a necessity to affect greenfield land, development has been designed to have a minimal footprint and to avoid habitats of greatest value. Mitigation measures are designed into the Project to compensate for all habitat loss, as reported in Section 9.8 as (Chapter 9 of the ES).
Betchworth Parish Council	1 December 2021	The Environment Bill requires development to have an overall positive impact on biodiversity and the environment. It is not clear how expansion of Gatwick Airport, with a 35% increase in flights and wider impacts can have the required positive impact. The development would increase air and light pollution and noise impacts on sensitive habitats around the airport. It is well known that noise and light pollution have various impacts on wildlife, often detrimental.	The approach to BNG is set out in Appendix 9.9.2. The potential ecological effects of air pollution are addressed in Chapter 9 of the ES. The potential effects of noise and light on sensitive ecological receptors are considered in Section 9.9 Assessment of Effects.
Betchworth Parish Council	1 December 2021	The life cycles of insects are disturbed by unnatural light at night; the communication between birds is disturbed by noise; predator and prey relationships are interfered with by noise and light; moths, which are declining in the UK, are attracted to lights, where many die; migrating birds can be	The potential effects of noise and light on sensitive receptors are considered in Section 9.9 Assessment of Effects.

Stakeholder	Date	Details	How / where taken into account in ES
		<p>affected by light at night. The detrimental effects of Gatwick Airport on wild life were clearly demonstrated during the pandemic with the striking increase in wild life activity associated with the decrease in aviation activity.</p> <p>Airports are inhospitable locations for many birds, including geese, herons, gulls, pigeons and starlings, due to fear by the aviation industry of birdstrike.</p>	
Betchworth Parish Council	1 December 2021	<p>Airports use a number of measures to deter birds locally, and are able to prevent the creation of features such as ponds, within about 13km of a runway, for fear that these will attract birds. More planes using Gatwick will further increase the fear of bird strikes, and therefore measures to make a wide area unattractive to birds.</p> <p>The interference caused by the expansion will inevitably have negative effects on some sensitive habitats around the airport.</p> <p>The tranquillity of the countryside over large areas of Surrey, Kent and Sussex will be reduced due to planes overhead, with few entirely quiet and peaceful places to which people can go for rest and relaxation</p>	The Project has considered the Civil Aviation Authority (CAA) (2017) Wildlife Hazard Management at Aerodromes in its design. No habitats would be removed to reduce the risk of bird strike and all impacts from construction on breeding and wintering birds have been considered and appropriately mitigated as assessed in Section 9.9 (Chapter 9 of the ES).
Bidsborough Parish Council	1 December 2021	The Environment Bill requires development to have an overall positive impact on biodiversity and the environment. It is not clear how expansion of Gatwick Airport, with a 35% increase in flights, additional land-take and wider impacts can have the required positive impact.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Crawley Borough Council	1 December 2021	The recommendations provided by WSCC should be addressed, including broader survey areas, more detailed consideration of air quality impacts and significantly more extensive mitigation, compensation and enhancement measures in order to achieve at least 10% net gain in biodiversity.	<p>The air quality impacts and how they affect human and ecological health are presented and discussed in Chapter 13 of the ES and corresponding appendices. Mitigation and enhancement measures adopted as part of the Project are specified in Section 13.8 of the ES</p> <p>The approach to BNG is set out in Appendix 9.9.2 of the ES.</p>
Frant Parish Council	1 December 2021	It is the Council's view that Gatwick cannot possibly suggest that the resulting 35% increase in flights that would accrue with expansion, alongside the additional land take, will have any positive outcomes for biodiversity and the environment, contrary to requirements set out in The Environment Bill. Noise and air pollution will inevitably increase which can only have a negative impact on sensitive habitats and ecology.	A full assessment of the potential impacts on biodiversity has been undertaken and is reported in Section 9.9 of Chapter 9 of the ES. The assessment has followed recognised guidelines and considers relevant legislation, including the Environment Act 2021.
Horsham District Council	1 December 2021	Noted that there is no detail of any biodiversity enhancements from the NRP. Opportunities to deliver enhancements need to be explored in consultation with appropriate stakeholders as a mechanism to deliver net gain for biodiversity.	Consultation with both Natural England and wider stakeholders via the Topic Working Groups has refined the final scheme design as described in the ES.
Horsham District Council	1 December 2021	The Ecology chapter of the PEIR should thoroughly explore all reasonable options to enhance the development for biodiversity including protected and Priority species. HDC welcome the opportunity	Opportunities to enhance biodiversity have been sought in the design of new habitats, such as through increasing species

Stakeholder	Date	Details	How / where taken into account in ES
		for a Project biodiversity topic group to work closely with any landscape and other topic groups to ensure that environmental impacts during construction will be minimised and that compensatory measures are developed in an integrated manner to deliver multiple benefits.	diversity in woodlands and grasslands which in turn would benefit protected and priority species. Details of how measures will benefit the habitats and species present is provided in Section 9.9 (Chapter 9 of the ES).
Horsham District Council	1 December 2021	In respect of Bats, need to cross reference all lighting design requirements with landscape/ecology sections of the Environmental Statement and embed these in the LEMP.	An appropriate lighting strategy is included within the ES Appendix 5.3.2: Code of Construction Practice (Doc Ref. 5.3). This will include details of where dark corridors will be retained/created. Such details will be embedded within the final LEMP for the site.
Horsham District Council	1 December 2021	There is no detail of any biodiversity enhancements from this Project. This should use Defra Metric v3.0 to ensure compensation is sufficient and that BNG can be delivered for this NSIP. The Environment Act 2021 places a 10% BNG requirement on development unless exempt which extends to nationally significant infrastructure projects which will become mandatory by autumn 2023. Opportunities to deliver enhancements need to be explored in consultation with appropriate stakeholders as a mechanism to deliver BNG.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Mid Sussex District Council	1 December 2021	The Habitats Regulations Assessment is not sufficiently robust. An in-combination assessment of the NRP on the Ashdown Forest has not been carried out.	The traffic model associated with the Project includes cumulative traffic through Ashdown Forest SAC/SPA (AADT figures provided in Figure 4.5.1 of Appendix 9.9.1 of the ES). This shows no cumulative effect.
Mid Sussex District Council	1 December 2021	GAL's Habitats Regulations Assessment is an Appendix to the PEIR. As currently presented the HRA is not accessible and is not easy to read or follow.	The HRA has been updated for the ES and is included in Appendix 9.9.1 (Chapter 9 of the ES).
Mid Sussex District Council	1 December 2021	The HRA focuses on the effects of the NRP alone rather than in-combination. It is unclear what level of growth has been included within the in-combination assessment	Section 5 of the HRAR describes the in-combination effects (both screening and appropriate assessment) of the Project with other plans/projects in the area. With respect to the traffic growth, the plans/projects included in the underlying model are described in Chapter 12 Traffic.
Mid Sussex District Council	1 December 2021	Ammonia has not been included in the traffic/ air quality/ HRA assessment. Local Authority Ashdown Forest Working Group, surrounding Ashdown Forest monitor and model ammonia as part of future air quality assessments to inform the HRA's of Local Plans.	Noted. Ammonia emissions are included in the impact assessment presented in Appendix 9.9.1, Chapter 9 of the ES.
Mid Sussex District Council	1 December 2021	It is unclear how the Average Annual Daily Traffic figures have been derived. GAL concludes that there are no cumulative increases in AADT levels greater than 1,000 on any road links through Ashdown Forest. GAL's air quality modelling has not considered what the relevant critical load might	The critical load that would be used with respect to Ashdown Forest is 10 kgN/ha/yr (ie the minimum critical load of the heathland interest features). However, since the traffic model

Stakeholder	Date	Details	How / where taken into account in ES
		be between a 'do nothing' and 'do something' scenario. If air quality modelling is undertaken (or has been undertaken) the assumptions and inputs will need to align with the proposed methodology for Ashdown Forest which is currently being discussed by the Local Authority Ashdown Forest Working Group who will also need to agree the methodology.	shows no increase >1,000 AADT, there is no requirement to move to the step of assessing emissions against the critical load.
Mole Valley District Council	1 December 2021	Information within the desk study areas was collected through data gathering in 2019. It is already two years old and would be considered out of date by Surrey Wildlife Trust. These studies should therefore be updated for the ES, each of which should be carried out within the correct survey season. It is noticed for instance, that a bat emergence survey was undertaken outside of bat survey season.	The desk study was updated in 2022 and the findings are reported in Appendix 9.6.1 and in Chapter 9 of the ES. The final bat emergence survey was delayed until the 02/10/19. The survey conditions were still suitable for bats to be active and, as such, the very slight delay in completing the surveys is not considered a constraint.
Mole Valley District Council	1 December 2021	There is no mention of Biodiversity Net Gain within the PEIR documents. The PEIR demonstrates a loss of biodiversity and proposals for Biodiversity Net Gain should be reported in the ES. Currently the documents show that there would be a long-term adverse impact on a priority species [REDACTED] population. Consideration should be given to each of the priority species that have been recorded.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Mole Valley District Council	1 December 2021	There is concern that the Zone of Influence and Study Area for the majority of ecological surveys is only within and/or close to the airport boundary without a rationale. The Zone of Influence of the proposed development should be fully justified.	Details of the study area and zone of influence are provided in section 9.4.6 to 9.4.11 (Chapter 9 of the ES).
Mole Valley District Council	1 December 2021	Given the presence of bats, information on the lighting principles should be provided, with a lighting plan demonstrating the presence of dark corridors indicating how bats will be able to utilise the landscape.	An appropriate lighting strategy is included within the ES (discussed in Chapter 9, table 9.7.1, 9.8.1 and paragraph 9.9.26). This will include details of where dark corridors will be retained/created (Chapter 9, section 9.9).
National Highways	1 December 2021	The operational activities associated with NRP will have a number of environmental impacts, which Gatwick will need to demonstrate have been fully considered. NH key concerns are included below with more detail included within the answers to the questions posed in Annex 2. It is unclear how the Biodiversity Net Gain (BNG) calculations have considered the SRN. Gatwick will need to undertake separate BNG calculations for the SRN-associated soft estate to demonstrate that biodiversity potential is maximised and that at least a no net loss is achieved. Additional comments on Biodiversity are included in Annex 2 question 5.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
National Highways	1 December 2021	NH notes that the proposals for the North and South Terminals would result in the loss of woodland, vegetation, trees, shrubs, hedgerow and habitat. National Highways has a biodiversity KPI to achieve No Net Loss of biodiversity over the whole National Highways soft estate by the end of Road Period 2 and it is unclear how the BNG calculations have been considered in relation to the	The approach to BNG is set out in Appendix 9.9.2 of the ES.

Stakeholder	Date	Details	How / where taken into account in ES
		SRN. On that basis, Gatwick will need to undertake separate BNG calculations for the SRN associated soft estate to demonstrate that biodiversity potential is maximised and that at least a no net loss is achieved. Notwithstanding this, the forthcoming Environment Bill will set out a target for all developments to achieve a biodiversity net gain of 10%, therefore opportunities to achieve this level of net gain should be explored.	
National Highways	1 December 2021	NH acknowledges the PEIR reports of a long-term moderate adverse significant effect on bats via the reduced habitat and connectivity across part of the SRN, which is contrary to National Highways' Biodiversity Plan. It is acknowledged that the effect is anticipated to reduce over time to a long-term negligible effect. However, the available habitat will be reduced during construction and whilst new planting is established. On this basis, National Highways requests further information on whether the duration can be reduced by retaining habitat nearby and what mitigation measures are proposed to maintain or improve connectivity for bats.	The assessment of effects in the ES assumes a worst-case loss of all habitat along the SRN during construction. The detailed design approach to the SRN is to minimise habitat losses wherever possible. The potential for reduced connectivity is a key issue that GAL has been seeking to mitigate during the design phase and has discussed in on-going consultation with NH and other stakeholders. The loss of woodland has been reduced as far as practicable and the hedgerow north and east of the South Terminal roundabout is retained in the detailed design to help retain some of the east-west connectivity.
National Highways	1 December 2021	Amendments to and interactions with the SRN should result in no net loss of biodiversity, and where possible a net gain in biodiversity should be achieved. For accounting purposes, NH would expect the gain/loss of biodiversity associated with the SRN to be calculated in line with current industry practice and made available to NH.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Riverhead Parish Council	1 December 2021	The Environment Bill requires development to have an overall positive impact on biodiversity and the environment. It is not clear how expansion of Gatwick Airport, with a 35% increase in flights, additional land-take and wider impacts can have a positive impact. The development will increase air pollution and noise impacts on sensitive habitats around the airport. In addition, the land take required for bio fuels for future flights will also have impacts on biodiversity and ecology that would be attributable to Gatwick's expansion plans. This is unacceptable.	The Project design has developed and the DCO will include several publicly accessible green spaces created either through the greening of existing developed areas within the airport or the diversification of land outside of the airport through habitat creation and creation of public access. The land will provide a significant increase in green space for the local community.
Surrey County Council	1 December 2021	We also recommend that the potential for effects on historic or 'important' hedgerows/shaws (within the context of the Hedgerow Regulations and Surrey Historic Landscape Characterisation) is reviewed and assessed within the LVIA. These are important historic landscape features contributing positively to landscape character including landscape fabric and perceptual landscape qualities such as time depth, and their loss can only be partially mitigated. However, this may be more of an issue for land within West Sussex than Surrey.	All hedgerows were surveyed to inform the Project baseline, as reported in Appendix 9.6.2 and Section 9.6 (Chapter 9 of the ES). No Important hedgerows were identified within the Project boundary.

Stakeholder	Date	Details	How / where taken into account in ES
Surrey County Council	1 December 2021	There are no figures within the LVIA confirming the extent of vegetation removal. It would be helpful if plans and associated information could be provided to confirm the locations, spatial extent and detail of proposed vegetation removals (possibly in conjunction with an arboricultural impact assessment)	A tree/arboricultural survey of the A23 corridor has been undertaken to inform the design development process. Tree removal and retention drawings are included in the oLEMP (Appendix 8.8.1 of the ES).
Surrey County Council	1 December 2021	The Environment Bill recently received royal assent and extends a 10% biodiversity net gain requirement to Nationally Significant Infrastructure Projects. As such GAL will need to demonstrate how expansion proposals achieve a minimum of 10% BNG.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Sussex Wildlife Trust	1 December 2021	The Sussex Wildlife Trust (SWT) welcomes the opportunity to submit comments on the Northern Runway Project (NRP) consultation. However, we are disappointed in the lack of previous consultation to date to allow us to be in a better position to assess the proposals. This is in contrast to other NSIPs effecting Sussex, where there has been engagement with relevant environmental stakeholders before official consultation on the Preliminary Environmental Information Report (PEIR).	Consultation with both Natural England and wider stakeholders via the Topic Working Groups has refined the final scheme design as detailed in the ES. This has included a separate Biodiversity Working Group that included SWT.
Sussex Wildlife Trust	1 December 2021	In particular, it has taken a lot of time to understand what is proposed as part of the Development Consent Order (DCO) application, rather than development that is already committed to or does not need permission. This is still not clear. Additionally, there is very little information provided about some elements of the project, such as the relocation of the Central Area Recycling Enclosure (CARE) facilities. This makes it very difficult to assess all potential impacts.	Noted. One of the first aims of the working group was to ensure all parties are fully aware of what is proposed . The Project description is provided in ES Chapter 5: Project Description (Doc Ref. 5.1).
Sussex Wildlife Trust	1 December 2021	Ecology and Nature Conservation. Overall, SWT is concerned by the lack of detail relating to impacts or how these will be avoided, mitigated, compensated and enhanced and therefore we are not convinced that this project will result in an overall benefit to biodiversity as required by policy.	The Project is being designed to ensure that it complies with the policy with respect to overall gain for biodiversity. This is demonstrated in Appendix 9.9.2 of the ES.
Sussex Wildlife Trust	1 December 2021	The exact location of impacts and mitigation, compensation and enhancement is not at all clear, with areas overlapping each other on various figures. There are no figures relating to predicted habitat loss, although the descriptions within chapter 9 of the PEIR appear to indicate that these locations and amounts are known. It is also not clear what elements of the PEIR relate to the DCO application and what relates to other permitted or planned projects.	Figures showing areas of habitat loss are included in the ES to ensure this is as clear as possible and to facilitate net gain calculations (Figures 2.1-6 of Appendix 9.9.2).
Sussex Wildlife Trust	1 December 2021	Without this information, there is insufficient evidence to demonstrate the significance of impact. Therefore, we believe the statement that 'The effects on habitats and species are generally found to be not significant ' in section 7.3.16 of the Non-Technical Summary is premature (taken from paragraphs 9.13.6 and 9.13.7 of the PEIR). We are particularly concerned about the impact of loss of habitat that will not be compensated for until the end of construction and take a long time to reach	Full details of the mitigation measures designed into the Project are provided in Section 9.8 and an assessment of the effects are provided in Section 9.9 (Chapter 9 of the ES).

Stakeholder	Date	Details	How / where taken into account in ES
		good condition eg woodland. The temporal loss in connectivity appears to be undervalued and more could be done to create new habitat in advance of loss.	
Sussex Wildlife Trust	1 December 2021	The lack of detail also makes it difficult to view the proposals holistically and ensure they are future proofed. This is concerning given the possible future scenarios referred to in chapter 15, such as increasing the length of the runway to enable flights to take off under hotter temperature conditions (Table 15.9.2). Any compensatory habitat or enhancements should be provided in perpetuity and should not be at risk from future proposals or predicted climate change. Currently there are no monitoring proposals or outline plans for long-term management.	Detailed mitigation measures for Climate Change are provided in ES 15: Climate Change (Doc Ref. 5.1). Mechanisms to secure mitigation, monitoring and enhancement are described to show that there are no high risks to the Proposed Development
Sussex Wildlife Trust	1 December 2021	There is very little information on biodiversity enhancements provided in the PEIR, which is disappointing given the good work that GAL has done in achieving and maintaining the Biodiversity Benchmark. In particular, there is no discussion of biodiversity net gain, despite this being an emerging requirement of NSIPs in the Environment Act and a key goal of GAL's ambitious Decade of Change document.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Sussex Wildlife Trust	1 December 2021	If the NRP proceeds, GAL must commit to at least a 10% net gain in biodiversity in line with good practice. In particular, SWT believes more can be done to improve connectivity and enhance habitats adjacent to the project boundary, particularly along the watercourses and hedgerows. We would also like to see more ambition in relation to re-naturalising the watercourses and bringing forward significant nature based solutions, particularly climate resilience.	Noted - the ecology strategy for the Project includes a number of measures to improve such connectivity including the dedicated ecology enhancement land [REDACTED], a key foraging ground for [REDACTED] bat. Such measures have been included in ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3).
Sussex Wildlife Trust	1 December 2021	SWT disagrees with the summary of the NPPF in this paragraph. Government policy has significantly shifted away from no net loss to a requirement for Biodiversity Net Gain (BNG) both currently within the NPPF (paragraphs 174, 179 and 180) and in the Environment Act, including for NSIPs. We understand that there is a transition period for the BNG requirements in the Environment Act. However, given the long lead in time for this proposal, we believe GAL should be planning to deliver a minimum of 10% BNG. This is in line with GAL's Decade of Change goal of having 'a sector-leading 'net gain' approach to protecting and enhancing biodiversity and habitats on the airport estate, including zero use of pesticides by 2030; and support biodiversity partnerships in our region'. There is reference to biodiversity offsetting in Table 9.2.1, but it is not clear what this means. Is it BNG ie. additional, or compensation?	The approach to BNG is set out in Appendix 9.9.2 of the ES. Reference to offsetting is from Airport NPS (para 5.96 - https://www.gov.uk/government/collections/biodiversity-offsetting). Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for residual adverse biodiversity impacts arising from a development after mitigating measures have been taken. The goal of biodiversity offsets is to achieve no net loss and, preferably, a net gain of biodiversity).
Sussex Wildlife Trust	1 December 2021	We do not think it is sufficient that 'Where practicable, opportunities to enhance the Project site for the benefit of biodiversity have been included in the design of the Project'. All the enhancements seem to be focused within the development footprint rather than as part of the wider ecological network. There are opportunities to improve habitat connectivity and function beyond the airport boundary that should be considered, particularly for linear habitats such as the River Mole, Gatwick	Noted - the current ecology strategy for the Project includes a number of measures to improve such connectivity including the dedicated ecology enhancement land to the west of the airport, a key foraging ground for [REDACTED] bat. Such measures

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		Stream and hedgerows. We do not believe that the enhancements proposed are sufficient even before considering delivery of biodiversity net gain.	have been included in ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3).
Sussex Wildlife Trust	1 December 2021	It should be acknowledged that the requirement for net gain for NSIPs is now enacted through the Environment Act. Although there is a transition period, we would expect GAL to deliver a minimum 10% net gain through this project.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Sussex Wildlife Trust	1 December 2021	SWT is concerned that for the majority of surveys, the study area was the Project site boundary. The details of mitigation, compensation and especially BNG are vague and still in development, however given the constrained nature of the project boundary we feel it is likely that some delivery will need to be outside this boundary. Surveys of the surrounding area should be undertaken to inform mitigation, enhancement and BNG opportunities.	Where delivery outside of the airport boundary has been necessary, surveys have been undertaken (to the west of the airport, for example). Further, extensive landscape-scale work with respect to bats has been completed to ensure that a full understanding of how these receptors use the Project site at a landscape scale is possible. Details of the surveys undertaken, including survey areas, are provide in Appendix 9.6.2 (Chapter 9 of the ES).
Sussex Wildlife Trust	1 December 2021	The PEIR states that 'it is recognised that effects on ecological receptors can occur beyond such limits, especially for mobile species such as bats and birds'. However, paragraphs 9.4.37 and 9.4.38 state that wintering and breeding bird surveys were undertaken within the Project site boundary only. This is a contradiction and needs to be justified. As stated above, SWT believe many of the surveys should extend past the project site boundary.	The extent of survey areas has been discussed and agreed with Natural England and recognises where potential effects could occur. Where the Project boundary has expanded, further surveys have been completed, as necessary, as reported in Appendix 9.6.2 (Chapter 9 of the ES).
Sussex Wildlife Trust	1 December 2021	SWT works through the Gatwick Greenspace Partnership (GGP) to help manage the BAP areas within the airport and maintain the Biodiversity Benchmark award. Any enhancements and net gain delivered through the NRP must be truly additional to any work likely to be delivered through the existing BAP. However, any mitigation/enhancements should also complement and connect to this existing work. We encourage GAL to incorporate new enhancement areas into the BAP to ensure long-term positive management. This should include the River Mole realignment area, which we note is not included as a 'potential environmental mitigation and enhancement area' on figure 5.2.1g. This should also include the other flood compensation areas mapped on figure 5.2.1e which could also provide good biodiversity enhancements if designed well. We appreciate that biodiversity enhancements in these areas are referenced in Table 9.8.1, however it is not clear which elements constitute true enhancements and what is mitigation or compensation for loss of habitat elsewhere and/or impacts on species.	Noted. It is intended that the new areas of habitat creation, especially Brook Farm, will form part of an updated BAP for the airport and will be included within the remit of the existing GGP work.
Sussex Wildlife Trust	1 December 2021	SWT is aware that nightingale was recorded singing within the airport in 2021 in two separate locations. GAL should update surveys with records collected by the GAL Biodiversity Advisor since the site surveys were undertaken.	Data collected by the GAL Biodiversity Advisor are included within ES Appendix 9.6.1: Ecological Desk Study (Doc Ref. 5.3).

Stakeholder	Date	Details	How / where taken into account in ES
Sussex Wildlife Trust	1 December 2021	Justifications should be provided for the values given for each Important Ecological Feature in this table. For example, given that Ancient Woodland is an irreplaceable habitat highly protected through national policy, we question its value being listed as only Regional. Similarly, it is not clear why Breeding bird assemblage is of County value, whilst Wintering birds is only Local. Both features include Section 41 species and BoCC Red or Amber listed species. European protected species are protected due to their international declines and therefore we have a national duty to conserve UK populations, we do not believe that EPS should be of only local value. The designation information for dormouse relates to otters, not dormouse - this needs correcting. Given that the Shining ramshorn snail is IUCN red listed; it should have higher value than local.	The criteria for how IEF value has been assigned are provided in Table 9.4.3 and is explained further in paragraphs 9.4.67 to 9.4.71 of Chapter 9 of the ES. This sets out that there are varying factors that go into determining value, not just the conservation status/legal protection of the receptor. As such, it is not the case that because EPS have international protection any individuals are automatically of International Value (although they may be). However, the values assigned to IEFs has been reviewed in consultation with the Biodiversity Working Group.
Sussex Wildlife Trust	1 December 2021	The Future Baseline should also consider that positive work through the BAP is likely to continue regardless of this proposal progressing, especially given GAL's Decade of Change goal of having 'a sector-leading 'net gain' approach to protecting and enhancing biodiversity and habitats on the airport estate, including zero use of pesticides by 2030; and support biodiversity partnerships in our region'.	Noted. The Future Baseline (Section 9.6 of Chapter 9 of the ES) makes explicit reference to the work of the GGP and BAP.
Sussex Wildlife Trust	1 December 2021	If biodiversity mitigation and enhancements required/committed to for the improvements listed in this section are included in the ES, these should be clearly set out, separately to anything relating to the application proposal.	Noted. These are set out in Section 9.8 (Chapter 9 of the ES).
Sussex Wildlife Trust	1 December 2021	SWT would like to see more enhancement and net gain options presented, especially outside of the airport boundary. For example, there are no mitigation or enhancement areas identified to the south of the runway or close to the LERL BAP area. We would expect there to be potential enhancement opportunities along the Gatwick Stream, particularly in terms of connectivity through to Grattons Park LNR. We encourage GAL to present a range of enhancement and net gain options in more detail and to make clear exactly which elements of the project are additional, and which are mitigation or compensation for adverse impacts.	Options with respect to enhancement both within and adjacent to the airside sections of the Project are limited by requirements with respect to plane safeguarding. However, other options have been explored through the Biodiversity Working Group.
Sussex Wildlife Trust	1 December 2021	The monitoring only relates to species, rather than habitats. It is not clear why as remedial action may be required for habitat creation schemes.	Details of both habitat and species monitoring are set out in the oLEMP submitted with the ES (ES Appendix 8.8.1).
Sussex Wildlife Trust	1 December 2021	GAL should consider opportunities for natural regeneration of woodland, along with planting. Where planting occurs, alternatives to plastic tree guards should be used.	Details of habitat creation are set out in the oLEMP(ES Appendix 8.8.1).
Sussex Wildlife Trust	1 December 2021	SWT is concerned that 'where practicable' is used in several sections of this chapter when relating to avoiding high value habitats and species. We expect the ES to set out clearly exactly what	Increased certainty in the Project design has allowed these to be addressed in the ES (Chapter 9).

Stakeholder	Date	Details	How / where taken into account in ES
		adverse impacts on biodiversity are likely to occur throughout the delivery of the proposal, and how this will be avoided and mitigated, as required by the mitigation hierarchy.	
Sussex Wildlife Trust	1 December 2021	We would like the ES to confirm that the diversion of the River Mole corridor would not have any adverse impact on the hydrology of the ancient woodland. This is not referred to in the PEIR.	Noted and addressed in Section 9.9 of Chapter 9 in the ES.
Sussex Wildlife Trust	1 December 2021	SWT believe it is premature to assign significance to the permanent loss of mature broadleaf woodland. The ES must set out the amount and location of loss, along with where this will be compensated and the amount of residual loss. We would expect this loss to be included in any calculation of biodiversity net gain. If it is not possible to compensate fully for the loss on site, then offsite strategic options should be considered.	Full details of habitat lost/gain has been set out in the assessment of effects in Section 9.9 (Chapter 9 of the ES). Where there is uncertainty, a worst-case scenario has been adopted. This includes with respect to net gain.
Sussex Wildlife Trust	1 December 2021	SWT supports the re-naturalisation of the River Mole; however, we hoped that GAL would be more ambitious in its commitments to biodiversity and plan for the diversion of the river away from the airport, removing the section that is currently culverted under the runway. We encourage GAL to develop long-term plans for this River to benefit biodiversity and to create more resilience to future pressures, particularly climate change. We question whether committing resources for this small section of the river only will undermine future plans for the wider River. We would also support nature based interventions to Crawters Brook and the Gatwick Stream, which are referenced very little in this chapter. We need clarity as to how the airfield satellite contractor compound relates to the river diversion. Chapter 4 states that the diversion will be completed in 2025, but the compound will be maintained until 2035. In Figures 5.2.1e and 5.2.1f, the two areas overlap.	At this stage, there are no plans to move the Mole away from the airport. Impacts to both Crawters Brook and Gatwick Stream are assessed in Section 9.9 of Chapter 9 in the ES. The location of the airfield satellite contractor compound in relation to the river has been revised since the PEIR and its location has been updated on Figures 5.2.1e and 5.2.1f of Chapter 5 of the ES.
Sussex Wildlife Trust	1 December 2021	It is not clear why only one of the replacement ponds mentioned in this section will be created for wildlife. Any new ponds created through the project should be designed to benefit wildlife.	Many of the water features to be created need to take airport safeguarding into consideration and this heavily influences design away from ponds that are of benefit to biodiversity.
Sussex Wildlife Trust	1 December 2021	We question the reliability of the long-term protection of the compensatory habitat given that what is being lost was planted 60 years ago to compensate for the road creation. There appears to be no guarantee that this compensatory habitat will not be destroyed in the future through further development and growth within the airport. Additional broadleaf woodland must be created to increase the resilience of this habitat to future changes.	The location of habitat creation has considered future uses and avoided areas that could be affected by known future developments.
Sussex Wildlife Trust	1 December 2021	Would the amount of breeding habitat be more than what has been lost? It is not clear why the impact is long-term low adverse? Any habitat creation should be more than what is lost as a basic principle, especially given the time lag between creation and use by breeding birds. It is also not clear where this habitat will be lost. Is this in relation to Riverside Garden Park? If so, more weight should be given to reducing the site of this wildlife feature given it is completely surrounded by	Much of the loss of breeding habitat is due to the road-side woodland to be lost through works along Airport Way. Although more will be put back, resulting in a benefit in the long term, as set out in Section 9.9 (Chapter 9 of the ES). Given the time frame required for establishment of the new habitat and the

Stakeholder	Date	Details	How / where taken into account in ES
		urbanising impacts (housing and roads). Maps should be provided to show where permanent habitat loss is occurring across the site.	magnitude of initial impact, the overall impact was considered to be minor adverse.
Sussex Wildlife Trust	1 December 2021	Again, there must be more details on the amount of habitat lost and compensated for. Currently there is no justification for generic statements such as 'substantial areas of habitat would be retained'.	There are large areas of the airport estate that are not currently part of the Project that will remain undisturbed (all of the woodland to the east of the railway line, for example).
Sussex Wildlife Trust	1 December 2021	SWT questions whether a 15 metre buffer [REDACTED] is sufficient. We are very concerned that the impact to bats in this location has not been fully explored as no transect appears to have been undertaken in this area. We do note that [REDACTED] were located in [REDACTED] and that there were a large number of bats recorded in the area using the static detectors. It is likely that the [REDACTED] in this area is an important feeding area for bats and therefore its value has not been sufficiently assessed. Clarity is required as to how the habitat creation through the River realignment will physically relate to [REDACTED] when it appears that the airside satellite contractor compound will remain between the two areas until 2035.	Bat transect data for the area around [REDACTED] is presented in Appendix 9.6.2 (Chapter 9 of the ES). The potential impact of work in this area has also been updated accordingly in Section 9.9. The habitats [REDACTED] were considered more important to bats, including [REDACTED], than the habitats to the south that have poor connectivity due to the airfield and increased levels of disturbance and light.
Tunbridge Wells Borough Council	1 December 2021	Again, given the distance of the landscape and ecological proposals to the borough of Tunbridge Wells, it is not considered appropriate to provide detailed comments in relation to this question, as this element of the facility is unlikely to have any direct material impact on Tunbridge Wells residents and/or environment. However, it should be noted that careful consideration should be made to the provisions set out in the National Planning Policy Framework (NPPF) and the recently enacted Environment Act. In light of the biodiversity emergency there should be an ambitious approach to net gain. The Act provides for a minimum of 10%. What is not clear is the level of net gain proposed as part of the proposals, if any.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Woodland Trust	1 December 2021	The Trust holds concerns regarding potential detrimental impact to two areas of ancient woodland known as Horleyland Wood LWS (grid reference: TQ2900740548) and Lower Picketts Wood (grid reference: TQ2959640781), which are both designated as ancient semi-natural woodland (ASNW) on Natural England's Ancient Woodland Inventory. Planning Policy The Airports National Policy Statement, Paragraph 5.103 states: "Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost, it cannot be recreated. The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss. Aged or veteran trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this."	No areas of ancient woodland will be affected by the Project. Decked parking is no longer proposed to be created on Pentagon Field and it would instead be used to store spoil. Therefore, any effects would be limited to a small timescale during construction only. There would be a 70m buffer between Pentagon Field and Lower Picketts Wood and additional mitigation measures would ensure the woodland was protected from adverse effects, as set out in Section 9.8 (Chapter 9 of the ES). The assessment of effects on ancient woodland considering the mitigation measures used are set out in Section 9.9. The foul water pipeline would be located outside of Horleyland Wood and a 15m would be retained between them. The additional mitigation measures mentioned in the previous

Stakeholder	Date	Details	How / where taken into account in ES
		<p>The National Planning Policy Framework, paragraph 180 also states: “When determining planning applications, local planning authorities should apply the following principles: c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;” [See references in original response]</p>	<p>comment would also further reduce the risk of effects occurring.</p>
Woodland Trust	1 December 2021	<p>Impacts to Ancient Woodland</p> <p>Our concerns regarding ancient woodland impacts focus on two elements of the proposals. The new Pentagon parking area will be sited adjacent to Lower Picketts Wood and the proposed corridor for re-routing existing foul water pipelines will be directly adjacent to Horleyland Wood LWS. Natural England has identified the impacts of development on ancient woodland within their standing advice. This guidance should be considered as Natural England’s position with regards to development impacting ancient woodland.</p> <p>“Nearby development can also have an indirect impact on ancient woodland or veteran trees and the species they support. These can include:</p> <ul style="list-style-type: none"> ▪ breaking up or destroying connections between woodlands and veteran trees ▪ reducing the amount of semi-natural habitats next to ancient woodland and other habitats ▪ increasing the amount of pollution, including dust ▪ increasing disturbance to wildlife from additional traffic and visitors ▪ increasing light pollution ▪ increasing damaging activities like fly-tipping and the impact of domestic pets ▪ changing the landscape character of the area” <p>When land use is further intensified such as in this situation, plant and animal populations are exposed to environmental impacts from the outside of a woodland. In particular, the habitats become more vulnerable to the outside influences, or edge effects, that result from the adjacent land’s change of use. These can impact cumulatively on ancient woodland, which is much more damaging than individual effects.</p> <p>We are specifically concerned about the following impacts to the ancient woodlands:</p> <ul style="list-style-type: none"> ▪ Noise, light and dust pollution occurring from adjacent development, during both construction and operational phases. ▪ Where the wood edge overhangs public areas, trees can become safety issues and be indiscriminately lopped/felled, resulting in a reduction of the woodland canopy and threatening the long-term retention of such trees. ▪ Adverse hydrological impacts can occur where the introduction of hard-standing areas and water run-offs affect the quality and quantity of surface and ground water. This can result in the introduction of harmful pollutants/contaminants into the woodland. 	<p>See response to previous comment.</p>

Stakeholder	Date	Details	How / where taken into account in ES
		[See references in original response]	
Woodland Trust	1 December 2021	<p>Mitigation</p> <p>Detrimental edge effects have been shown to penetrate woodland causing changes in ancient woodland characteristics that extend up to three times the canopy height in from the forest edges. As such, it is necessary for mitigation to be considered to alleviate such impacts.</p> <p>Natural England’s standing advice for ancient woodland, states: “Mitigation measures will depend on the development but could include:</p> <ul style="list-style-type: none"> ▪ improving the condition of the woodland ▪ putting up screening barriers to protect woodland or ancient and veteran trees from dust and pollution ▪ noise or light reduction measures ▪ protecting ancient and veteran trees by designing open space around them ▪ identifying and protecting trees that could become ancient and veteran trees in the future ▪ rerouting footpaths ▪ removing invasive species ▪ buffer zones” <p>Additional mitigation approaches are also outlined in our Planners’ Manual; these measures would help ensure that the development meets policy requirement and guidance and include:</p> <ul style="list-style-type: none"> ▪ Measures to control noise, dust and other forms of water and airborne pollution. ▪ Retaining and enhancing natural habitats around ancient woodland to improve connectivity with the surrounding landscape. ▪ Sympathetic design and use of appropriate lighting to avoid light pollution. ▪ Implementation of an appropriate monitoring plan to ensure that proposed measures are effective over the long term and accompanied by contingencies should any conservation objectives not be met. <p>[See references in original response]</p>	Mitigation measures have been designed into the Project to protect ancient woodland. This includes the use of appropriately wide buffers and pollution control measures during construction, as described in Section 9.8 (Chapter 9 of the ES).
Woodland Trust	1 December 2021	<p>Buffering</p> <p>In order to address our concerns with regards to the Pentagon car park, we would advise a buffer zone of at least 50 metres to Lower Pickett’s Wood is implemented to both avoid root damage and to allow for the effect of air pollution associated with this aspect of the development. With respect to the foul water pipeline, we would ask that a 15m buffer is implemented to protect the root systems of trees on the edge of Horleyland Wood LWS.</p> <p>The buffer zones should be planted before construction commences on site. HERAS fencing fitted with acoustic and dust screening measures should also be put in place during construction to ensure that the buffer zone does not suffer from encroachment of construction vehicles/stockpiles, and to limit the effects of other indirect impacts.</p> <p>This is backed up by Natural England’s standing advice which states that “you should have a buffer</p>	Pentagon Field is no longer included in the proposals as car parking. The field will be used to deposit spoil and a buffer of more than 50m from Lower Pickett’s Wood would be implemented. A 15m buffer would be used around Horleyland Wood.

Stakeholder	Date	Details	How / where taken into account in ES
		zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic."	
Woodland Trust	1 December 2021	Conclusion In summary, the Woodland Trust objects to the proposed scheme in its current form on the grounds of potential disturbance to two areas of ancient woodland to facilitate the Northern Runway proposals. Further measures should be considered and implemented to ensure appropriate protection for ancient woodland from this scheme.	As set out in the previous comments, amendments to the scheme and more detailed mitigation measures conclude no adverse effects on ancient woodland are foreseen.
South East Rivers Trust	6 December 2021	We see the extension of the current culverted River Mole as less favourable due to the Mole already being heavily modified. However, we understand this is unavoidable and will be mitigated for elsewhere along the river. As part of this mitigation, we would like to see improvements made to the downstream section of the Mole, around the north edge of the airport, that sees low flows and low oxygen concentrations in the summer months. These issues may be as a result of previous river diversions to accommodate the airport footprint, impacting the channel's gradient and dimensions. We would like to see all opportunities arising from the new proposals to address these issues. We are encouraged to see areas highlighted for ecological mitigation on the floodplains of the Mole and Gatwick Stream. We see this as a good opportunity to enhance what is currently degraded floodplain habitat and to improve the resilience of the watercourses.	Full details of the River Mole diversion are provided in Chapter 11 (Hydrology) and the effects on biodiversity are assessed in Section 9.9 (Chapter 9 of the ES).
Chiddingstone Parish Council	Date?	These measures do not go far enough to offset the massive environmental impact of Gatwick's proposals. The increase in air pollution and the impact on sensitive habitats not only at the airport but throughout the South East will damage for ever our natural environment. This is totally unacceptable.	The approach to BNG is set out in Appendix 9.9.2 of the ES.
Forestry Commission	Date?	The Forestry Commission has also prepared joint standing advice with Natural England on ancient woodland, ancient trees and veteran trees which we refer you to as it notes that ancient woodland, ancient trees and veteran trees are an irreplaceable habitat and that, in planning decisions, Plantations on Ancient Woodland Sites (PAWS) should be treated equally in terms of the protection afforded to ancient woodland.	No ancient or veteran trees that would be affected by the Project were identified during the Phase 1 habitat survey. Ancient woodland was identified within the Project survey boundary and is reported in the desk study report at Appendix 9.6.1 and summarised in Section 9.6 (Chapter 9 of the ES). Mitigation measures designed into the Project to avoid effects on ancient woodland are described in Table 9.8.1 and potential effects are described in Section 9.9 (Chapter 9 of the ES). Opportunities to avoid effects on these features and habitats have been taken during the site selection process (see Chapter 3: Need and Alternatives Considered of the ES).
Forestry Commission	Date?	Within 7.3.5 it states that Ancient woodland base map has been obtained from the MAGIC website. Woodland under 2 hectares may not appear on the Ancient Woodland Inventory but may still have	All woodland within the Project site boundary was assessed for ancient woodland characteristics during the Phase 1 habitat

Stakeholder	Date	Details	How / where taken into account in ES
		ancient woodland characteristics so we would support that a detailed investigation is undertaken to ascertain whether any additional ancient woodlands exist that may be impacted by the proposed scheme.	survey, ES Appendix 9.6.2, and no further areas of ancient woodland were identified.
Forestry Commission	Date?	The scoping report does not refer to veteran trees. Ancient trees and veteran trees can be individual trees, or groups of trees including within hedgerows. We would support the inclusion of notable trees within the ES, ancient and veteran trees can be individual, clumps or groups. Site investigations for the ES should identify ancient and veteran trees. Any potential impact on landscape regarding Ancient Woodland, Ancient trees and Veteran trees and other woodland should be included in the Environment Statement.	No ancient or veteran trees that would be affected by the Project were identified during the Phase 1 habitat survey. Ancient woodland was identified within the Project survey boundary and is reported in the desk study report at Appendix 9.6.1 (of the ES) and summarised in Section 9.6 (Chapter 9 of the ES). Mitigation measures designed into the Project to avoid effects on ancient woodland are described in Table 9.8.1 and potential effects are described in Section 9.9 (Chapter 9 of the ES). Opportunities to avoid effects on these features and habitats have been taken during the site selection process (see Chapter 3: Need and Alternatives Considered of the ES).
Forestry Commission	Date?	Within FIGURE 5.2.1e it indicates Potential areas for flood compensation. The ES should consider the potential impacts and disturbance within the buffer zone of the ancient woodland.	Ancient woodland was identified within the Project survey boundary and is reported in the desk study report at Appendix 9.6.1 and summarised in Section 9.6. Mitigation measures designed into the Project to avoid effects on ancient woodland are described in Table 9.8.1 and potential effects are described in Section 9.9. Mitigation measures include a buffer to ancient woodland of at least 15 m from any construction activities, to be protected by suitable fencing. This includes with respect to the flood compensation areas. Opportunities to avoid effects on these features and habitats have been taken during the site selection process (see Chapter 3: Need and Alternatives Considered).
Forestry Commission	Date?	FIGURE 5.2.1f the Main Construction Compounds is located next to the ancient woodland. The ES should consider the potential impacts and disturbance within the buffer zone of ancient woodland.	No works will take place with 15m of any area of ancient woodland, including for the main construction compound. All such buffers will be protected with suitable fencing.
Forestry Commission	Date?	Within FIGURE 7.3. - there is only Ancient woodland identified, we would like to see all woodland assessed for value and impact, and to be considered within the scheme design and any mitigation/compensation provisions with a minimum 'no net loss' and ideally 'net gain' for ecological habitats including woodlands.	All woodland has been assessed and mapped during the Phase 1 Habitat Survey (paragraphs 9.6.15 – 9.6.17 of Chapter 9 of the ES). The approach to BNG is set out in Appendix 9.9.2 of the ES.

Stakeholder	Date	Details	How / where taken into account in ES
Forestry Commission	Date?	With regard to mitigation we suggest that a UKFS-compliant Woodland Creation Design Plan is considered for any potential woodland creation habitat proposed in the development; including its long term management to address future management including land locked areas to ensure suitable planting schemes and the appropriate infrastructure is in place.	A suitable plan is included in ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3).
Forestry Commission	Date?	A UKFS compliant woodland management plan should be undertaken for any woodland management of existing woodland proposals put forward as part of the mitigation package.	A suitable plan is included in ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan (Doc Ref. 5.3).
West Sussex County Council	Date?	In reference to Paragraph 7.3.27: The assessment should include reference to non-road mobile machinery (hedge trimmers, lawn mowers, etc.).	Based on updated designs through the ES process, there would be no impact of non-road mobile machinery on designated sites. A full construction ecological management plan will be provided in the ES Appendix 5.3.2: Code of Construction Practice (Doc Ref. 5.3). Noise levels are already high within the area and the extra machinery would have a negligible impact.
West Sussex County Council	Date?	In reference to Paragraph 7.3.5: The data used to inform this Scoping Report has been limited to the Magic website. However, Local Record Centres have been enquired of and presumably the substantial incoming data will inform the ES and pick up omitted Local Wildlife Site Boundaries (LWS) eg Horleyland Wood.	The ES includes Appendix 9.6.1 Ecological Desk Study. All appropriate records provided by Sussex and Surrey local record centres are summarised here.

3 Glossary

3.1 Glossary of terms

Table 3.1.1: Glossary of Terms

Term	Description
BOA	Biodiversity Opportunity Areas
CBC	Crawley Borough Council
CIEEM	Chartered Institute of Ecology and Environmental Management
CoCP	Code of Construction Practice
DCO	Development Consent Order
DMP	Development Management Plan
EIA	Environmental Impact Assessment
EIASR	Environmental Impact Assessment Scoping Assessment
ES	Environmental Statement
GAL	Gatwick Airport Limited
IAQM	Institute of Air Quality Management
oLEMP	Outline Landscape and Ecology Management Plan
NERC	Natural Environment and Rural Communities Act
NPPF	National Planning Policy Framework
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
SAC	Special Areas of Conservation
SNCI	Sites of Nature Conservation Importance
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
SxBRC	Sussex Biodiversity Records Centre
UKFS	United Kingdom Forestry Standard