Appendix C: Detailed Comments on the Preliminary Environmental Information Report

This document provides comments from West Sussex County Council (hereafter referred to as 'WSCC') on the Gatwick Northern Runway Project Preliminary Environmental Information Report (PEIR), published by Gatwick Airport Limited on 9 September 2021.

The following table provides comment for each PEIR chapter relevant to WSCC, with specific paragraph/table/figure references where applicable.

NB: It does not include comments on behalf of the District or Borough Councils in West Sussex.

Ref	WSCC Comment
Chapter 1 - Introduction	
1.3.4	There is no reference made to the demolition and relocation of the CARE (Central Area Recycling Enclosure) Facility. The PEIR indicates (Chapter 5, para 5.2.39) that installation of a stack of up to 50m in height would be required. This has the potential for significant environmental effects in its own right. The EIA must include full details of the CARE facility to allow stakeholders to understand if all potential impacts have been fully addressed.
1.5.2	WSCC would want to see enhancements listed here and a commitment to a minimum of 10% Biodiversity Net Gain (BNG) would be expected.
1.8.2	WSCC welcomes, pursuant to Regulation 14 (4) of the 2017 Environmental Impact Assessment (EIA) Regulations, the Statement of Competence that has been presented as part of the PEIR. WSCC expects this to be updated for inclusion within the Environmental Statement (ES).
1.9	GAL presents 'next steps' sections within the Preliminary Environmental Information Report (PEIR). There is a lack of detail on this for individual topics, i.e., detailing what is still required to be undertaken to develop the ES, and when and how stakeholders will be involved in the process, prior to the Development Consent Order (DCO) application being submitted.
Chapter 2 – Planning Policy Context	
General	There are a number of Government projects and programmes that are taking place over the coming years that will impact UK airports, that are outside the scope of the proposals. Any material changes to national policy and guidance, related to aviation, will need to be considered by GAL as the DCO process progresses.
Table 2.2.1	The West Sussex Joint Minerals Local Plan is incorrectly referenced. The reference should read West Sussex Joint Minerals Local Plan (July 2018, (partial review March 2021)).
References	The West Sussex Transport Plan reference is incorrect, it is marked down as the Waste Plan (although the link is correct).
Chapter 3 – Need and Alternatives Considered	
General	There is insufficient detail provided to understand the forecasts and assumptions around passenger growth and need, making it difficult to understand the requirements of the scheme and its impacts.
General	York Aviation Ltd were commissioned by WSCC, and other LPAs, to consider the need case, scenarios, demand forecasts, and the assessment of socio-economic benefits of the NRP. The York Aviation report, submitted with this consultation response, forms part of the overall WSCC response.
3.3.3	'*taking into account environmental effects'* - WSCC wants to see a stronger statement that environmental and social effects have been a key factor in the site selection process associated with airport infrastructure.
Table 3.3.1	WSCC understand that safety and operational factors are a driving element of airport facilities, we would expect to see clear evidence of how constraints mapping of ecological/environmental information has fed into the assessment

	process to choose the most favourable site. How have these criteria been weighted? How have the criteria been chosen? Reference is made to landscape character, but little about visual impact to receptors, including local communities.
3.3.45	The preferred option is a combination of B1, B2 and B3. It is not clear what is and isn't included from the 3 options. This should be presented as a stand-alone Option B7, clearly marked, against which potential impacts can be fully understood.
3.3.66	The preferred option for the pier is Option E10, the location of an existing carpark. How has the loss of this car park been considered? Reference is made to the car parking options but it's not clear how many spaces would be 'new' and those that would be 'replacement'.
3.3.75	Clarity is required on some of the design assumptions with regards these options – for example hangar options. The assessment does not outline the height/footprint of these and how visual impacts have been taken into account. Hangar Option F1 would have potential visual impacts to receptors outside of the airport boundary to the North West, but this has not been highlighted in the assessment. • It is noted that in para 3.3.64, regarding the piers, reference is made to introducing new aircraft to an area of the airfield that does not experience aircraft resulting in noise and air quality emissions closer to receptors to the north west of the airport (mainly the Bear and Bunny Nursery, Povey Cross and the River Mole corridor). These receptors are closer to Option F1 for a new hangar, than the new pier (E10), however no reference is made to the potential impacts. • Option F1 will result in the loss of car parking spaces. How has the loss of this car park been considered? Reference is made to the car parking options but it's not clear how many spaces would be 'new' and those that would be 'replacement'.
3.3.128	The CARE facility in its own right has the ability to cause environmental harm. It is important that detailed information is provided, including the site criteria assessment, technology proposed, and potential impacts to the environment, including, but not limited, to air quality.
General	This chapter should outline the justification for the PEIR boundary presented, with the recognition that it is very tightly drawn around the airport boundary. Can this be further detailed within the ES, taking account of any additional required mitigation.
General	As stated within the WSCC Masterplan consultation response in 2019, before the publication of the draft Master Plan, there were no formal discussions with WSCC about the scenarios or the work undertaken by GAL. Similarly, since the development of the NRP DCO proposals, there have been limited allowance for stakeholders to influence the design prior to the PEIR being published. WSCC expect to see further technical engagement to allow the design to be understood and scrutinised prior to the DCO application being submitted.
General	It is stated that the development process has been designed to run alongside, and iteratively, with the EIA process, with the design informing the EIA and vice versa. It would be useful to have a flow diagram indicating how the design and EIA process are interlinked, and how this process runs in parallel with consultation and engagement activity. This would demonstrate how the Proposed Development maximises opportunities for avoidance and prevention

	of significant effects and maximises stakeholder engagement to result in a high-quality development, consistent with the policy requirements.
Appendix 3.3.1	There is a general lack of evidence around scoring and narrative of risks associated with each option. The Appendix does not give enough evidence, with nearly all stating: '*options would reduce land take and avoid the removal of habitats where possible'*.
Chapter 4 – Existing Site and Operation	
General	The description of the existing site and operations requires further clarification. This information must be verified if it is to be used in any baseline assumptions for the ES.
General	Clarification is required on whether the facilities currently presented as baseline are fully utilised based upon current passenger throughput.
General	Clarity is needed on the status of projects/plans included as '*planned for implementation'*.
General	Consideration should be given to the York Aviation report, which forms part of the WSCC consultation response.
Chapter 5 – Project Description	
5.2.3	WSCC requests that full justification is given for the inclusion of facilities such as new hotels and office blocks (particularly as it is not clear when they would be required or whether the end occupier could be a non-airport related user) and whether it is directly linked and required to facilitate the airport expansion. WSCC would question whether these are necessarily essential on-airport to cater for the increase in passenger numbers resulting from the alteration of the runway.
5.2.3	The demolition and rebuilding of the CARE facility is a major element of the project and should be referred to as such.
5.2.37 – 5.2.40	The description of the replacement CARE facility is lacking and requires further detail to understand how much additional infrastructure is present over and above currently on site (e.g., it describes an additional biomass boiler and limited details on the number of flues required).
5.2.45	Will a new emergency control tower be required, this section only describes its demolition, but no indication of replacement, or details on the basic engineering parameters.
5.2.49	Further clarity on how close the old aircraft engineer ground running areas are to the new facilities proposed. These should be presented on a figure.
5.2.52	When will there be clarity on the likely requirements for a satellite airport fire service facility? Has this therefore be assessed as a worst case for the purposes of the PEIR?
5.2.55	Further detailed information is needed to understand the location and form of the noise bund/barrier. Will the new noise bund be higher or lower than the current? How will noise be temporarily mitigated whilst the old is being demolished and the new being constructed?
5.2.67	In recent years passenger growth has occurred without the need for additional office provision. However, it is expected that further operational office provision would be required as the airport grows to meet needs of airport companies. '*The exact configuration, phasing and amount of floorspace would*

	be dependent on the actual timing of requirements' - WSCC expects further justification of what is included within the DCO on this basis.
5.2.97	When will details on the amount/scale of intervention of the shuttle service be provided to allow for additional capacity to be known? Has no additional development of this been assumed for the purposes of the PEIR?
5.2.122	WSCC would expect design of new buildings, and infrastructure (including lighting strategy) to be sensitive to the surrounding environment and receptors, and the EIA should be positively influencing this. Reference should be made to IEMA '*Delivering Quality Development'* and '*Shaping Quality Development'*.
5.3.2	What are the emergency measures in place for aircraft when the emergency northern runway is '*not available as a standby runway for a period of several months*'?
5.3.80	The temporary construction compounds will be in place from the start to the end of construction, in 2035. They will be approximately 5 hectares in size and have construction equipment to a height of 30m. All impacts of these construction compounds should be fully assessed and details on how locations have been determined, in terms of sensitive receptors need to be provided.
General	WSCC is disappointed that a Sustainability Assessment has not been included within the PEIR documentation and expect to be consulted on this, and a number of other plans referenced, ahead of DCO submission.
General	The wording within the project description, for example, '*it might, its likely, it could include'*, doesn't give stakeholders confidence that all likely impacts have been assessed. Information should be presented under each project element outlining the maximum design parameters that are going to be assessed in the EIA.
Appendix 5.3.1	The key phasing set out in the document (Table 1.2.1) provides very large timeframes, such as 11 years for car parking and 8 years for hotel/commercial facilities. Going forward, it will be important to know more accurate timing/phasing of the associated development, to fully understand the impacts of construction on sensitive receptors.
Appendix 5.3.3	There is concern that local Fire Stations to the airport e.g., Crawley and Salfords, would be called upon more frequently for Gatwick 'Domestic' incidents (fire alarm activations, medical incidents, lift shut-in's etc) if the Airport Fire Service will be operating a satellite station on top of their existing station, or by the simple fact there will be an increase in the size of the airport and an increase in people at the location. Clarity is required on whether Gatwick Fire and Rescue Service are still going to be operating a domestic appliance and if the category of the airport will still remain the same.
Appendix 5.3.3	There is a concern that there will be an increase in Road Traffic Collisions as a result of the increased infrastructure and road networks surrounding the airport, that will have an impact on emergency services and WSCC Highways departments.
Appendix 5.3.3	WSCC Fire Service have asked that they be included in any future consultations or discussions in relation to mitigation works taking place that form part of the project in relation to wildfires and flooding. There are concerns from WSCC in relation to flood risk increasing through the increase of infrastructure. The River Mole, which runs through the airport, already poses a substantial risk when water levels are high or there is heavy rainfall.
Appendix 5.3.3	With the increase in the terminal forecourt areas and increased passenger numbers, there is concern this could increase the risk of potential terrorist

	activities taking place in these locations. WSCC recommend consultation with the National Counter Terrorism Security Office (NaCTSO) if this has not already been undertaken.
Appendix 5.3.3	Would the Rendez-vous-points remain in their current locations or would these be relocated? This would impact emergency services and possibly the attending appliances if these were to be relocated.
Appendix 5.3.3	GAL appear to have only made considerations in a 1km and 10km area, but nothing beyond this. WSCC expects to see a clear justification for the defined study areas associated with the assessment in the ES.
Appendix 5.3.3	It is not clear if Surrey Fire & Rescue service been involved in the consultations. WSCC recommends that they are included going forward if not consulted to date.
Appendix 5.3.3	In the event of a major incident or disaster, there will be an increased demand for humanitarian support, which will put higher demands and pressures on acute hospitals/local authorities and Rest Centre requirements. Currently capacity is identified in local hotels to accommodate rest centres or reunion areas, would this change with the increase in passengers and higher demands for accommodation? WSCC also require clarity also on whether there is enough capacity at local A&E departments and within the broader emerging ICS (Integrated Care System) to cope with the demand of an additional 14 million passengers passing through the airport every year.
Chapter 6 – Approach to Environmental Assessment	
General	WSCC welcome the Statement of Competence by GAL (required under the EIA Regulations) and raises no concerns over the level of competence of the consultants who have undertaken the environmental assessment work. There is, however, no evidence that GAL have taken into account all recommendations from the Planning Inspectorate in some key topic areas. Although it is recognised that professional judgment is important, WSCC note that the narrative around this professional judgement is lacking, and therefore leaves stakeholders thinking that impacts have been downplayed without the full justification for this.
General	All method statements for surveys, investigations and assessment methodology for relevant topics should be consulted upon and agreed with the relevant stakeholders in good time and discussions held on any COVID-19 restrictions in gaining required data.
General	The EIA should focus on mitigation and compensation to be provided, that is both clearly presented in the PEIR/ES and measurable, particularly if it is relied upon for the purposes of presenting the residual impacts within the assessment.
6.3.51	WSCC wants to see commitments to monitoring. It is recognised that monitoring is an important element in the management and verification of the actual proposed impacts. It is understood that the outline management plans, across a number of environmental topics, will be submitted along with the DCO application.
General	With regards the ES structure, will GAL be including a chapter on consultation, with an appended Consultation Report? WSCC wants to see how the key findings of consultation have driven forward the proposed design.
Chapter 7 Historic Environment	

General	WSCC refers to comments made by Surrey County Council (SCC) with regards archaeology matters.
Table 7.4.2	The impact on surviving archaeology within the site of the current airport has not been included within the impact assessment. The only acknowledgement of the Airport itself as having heritage interest is in relation to designated assets. Further assessment is required within the airport boundary itself.
Table 7.4.2	Use of the Airports NPS, whilst obviously acceptable as the national methodology, leads to what is considered to be a downgraded assessment system for heritage assets. The assessment methodology also draws upon the Design Manual for Roads and Bridges and its accompanying Environmental Assessment methodology. Only World Heritage Sites would qualify as being of 'Very High' significance under this process, with nationally important sites as 'High' and regionally significant as 'Medium' (or 'Moderate' as the PEIR baseline refers). Locally significant sites are rated as 'Low'. Non NSIP assessment methodology omits the 'Very High' category meaning each class of asset is assigned a higher rating than here. Therefore, WSCC disagree with some of the 'significance' assessments in the Baseline Study, and most of the sites are more important to regional/local commentators, than the assessment process has concluded.
General	The continuation of archaeological evaluation work, to better appraise and define the potential of the sites not yet undertaken, will be required. This is particularly within and around Museum Field, but also on Pentagon Field and Crawters Field, and in association with the River Mole diversion.
General	WSCC expects to see an Historic Area Appraisal of the airport itself to address the gaps in the baseline study. It is hoped the borehole and geotechnical information that GAL intend to review will be a comprehensive survey; if not, further ground truthing will be required to confirm the archaeological truncation that has been stated has occurred. Absence of this data is a major omission and further consultation on these matters will be required with relevant stakeholders prior to DCO application.
Chapter 8 Landscape, Townscape and Visual Resource	
General	WSCC would have benefited from earlier involvement in the LVIA methodology discussions, for example to understand what screening levels and parameters have been used for the ZTV, and the basis for identifying viewpoints.
Table 8.3.1	PINs question (I.D 4.2.10) - If a visible plume is produced it should be assessed and if a RVAA is undertaken it should be included in the LVIA. GAL state that '*Due to the limited intervisibility of visual receptors within the study area and the very limited number of likely significant effects, there is no requirement for an RVAA. The potential for a visible plume at the CARE facility will be considered during the EIA process and reported, if required, in the ES'*. How have visible plumes be ruled out if the assessment hasn't been undertaken yet? Further justification for no RVAA should be included in the ES.
8.3.2	The listed topic areas raised during consultation do not include the queries raised by WSCC with regards LVIA methodology (basis for ZTV production) and how viewpoints were identified.
General	It is not clear how the early LVIA work fed into the site selection process for the proposed development. How has LVIA work helped guide the location for the construction compounds? The need for a surface access contractor compound on greenfield land north of the A23 Spur is questioned, when the

	airport has so much surface access car parking that could be utilised without the environmental damage and disruption this site would cause to nearby residents.
General	There is a strong reliance throughout the PEIR that the maturity of planting will be used to mitigate impacts, although the 'Landscape Design Year' is 2038, there are significant elements of the project where landscape planting proposals will be immature, not just visually, but in ecosystem service provision too. WSCC requests GAL review and present opportunities for substantial advance planting.
Figure 8.4.1	Further justification is needed on why large areas of the ZTV presented within this figure is shown as having intervisibility with the surrounding environment, but no viewpoints are presented to assess this. Extra viewpoints should be considered to the north, west and south of the airport, e.g. along the Sussex Border Path, Charlwood, Russ Hill, Langley Green, closest point of the High Weald AONB and to the east of the M23. WSCC refers to the relevant District and Borough Councils for further site-specific viewpoints identified.
General	WSCC expects all viewpoints to have photomontages and to be assessed in summer, winter and during the night-time periods.
8.9	The document discussion on PRoW is limited only to the visual receptors. The experience and impact for the public on these routes and footpaths is not representative from just one viewpoint, there needs to be a wider analysis of the impact on these wider routes and other rights of way as the public travel along them.
8.9	Concerns about works to Pentagon Field, being used as a site for spoil, and its potential impact to Lower Pickett Woods to the south. Impacts appear to be downplayed when taking account of proposed development in this sensitive location.
General	The assessment does not address the visual impact of the 18,000 m^2 Gatwick Stream Flood compensation area, which appears to excavate the ground level by 3m. Such works would have impacts during construction and on landscaping from these fields, although reference to walkers is made in 8.9.184. The report does not describe the impacts on landscape or nearby sensitive uses for the Peeks Brook Lane road widening, that includes an increase in the height of the bridge. The visual impacts of the junction works for both Terminals need to be fully outlined.
Chapter 9 Ecology and Nature Conservation	
Table 9.2.1	This section states that '*Opportunities for building in beneficial biodiversity in the Project design have been sought and these have included opportunities to establish and enhance green infrastructure*.' Although a green infrastructure approach is welcomed, WSCC 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.
9.4.6	For the majority of surveys, the study area was the Project site boundary. However, surveys for more mobile and sensitive species such as bats, birds and otters have been extended beyond the Project site boundary. There is no discussion provided on the rationale behind this.
9.4.12	The proposal to extend the otter and water vole surveys to include up to 500 metres both upstream and downstream of the Project boundary is welcomed.

9.4.14	Existing information on ecology was collected from Local Records Centres and other sources in a desk study exercise. It should be recognised that lack of species information can simply mean that few naturalists and other recorders have visited an area. This is likely to be particularly so within the confines of Gatwick Airport. Such limitations of the data should be highlighted in Section 9.5.
9.6.12	The Project site includes two areas managed by GAL as part of their Biodiversity Action Plan (BAP). It would be helpful to understand more about the Gatwick Airport BAP, including the ecological interest and management of these areas. This could help inform potential opportunities for habitat enhancement and creation.
Table 9.8.1	Protective fencing is proposed during the construction period where trees, woodlands and hedgerows are to be retained. Such fencing should also be used to protect other habitats, such as rivers, ponds and some grasslands, including those supporting reptiles.
Table 9.8.1	What opportunities are there for enhanced management of existing sites/habitats within the Project boundary, such as the extensive areas of amenity grassland alongside the runways, Horleyland Wood Local Wildlife Site, ponds, hedgerows, Gatwick Stream & Crawter's Brook? A more diverse flora of native wildflowers could be introduced to the existing amenity grasslands, possibly through a variety of techniques such as re-seeding & plug planting. A change in management from mowing to cut and collect could also be employed, thereby reducing the vigour of the sward & encouraging flora diversity. Reduced herbicide use would be beneficial. Any new areas of grass, including adjacent to runways & buildings, could be established on low fertility subsoil (rather than high fertility topsoil) to reduce vigour and encourage floral diversity. It may be possible to enhance the condition and ecological interest of a number of the ponds within the Project Area through better management.
Table 9.8.1	WSCC expects to see more detailed, annotated plans showing the locations of all the habitats to be retained, enhanced and created, and also those likely to be lost within the ES.
Table 9.8.1	Mitigation, compensation and enhancement measures should not be limited to within the airport boundary.
Fig. 4.2.1c and Fig. 9.6.3	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.
Fig. 9.6.3	This depicts grassland adjacent to the runways in pale yellow (Amenity grassland) & pale greeny yellow. The latter shade does not feature in the key; therefore, it is not clear what habitat this refers to.
Fig. 9.6.3	The Phase One Habitat Survey (Fig. 9.6.3) appears to omit some of the running water, notably Crawter's Brook (Although Crawter's Brook is highlighted in Fig. 4.2.1c).
Fig. 9.6.3	It would be beneficial if the Phase One Habitat Survey extended beyond the Project Area. Depicting linear habitats, such as streams, notably the River Mole, Gatwick Stream and Crawter's Brook, woodland and hedgerows outside the boundary of the airport would help identify wildlife corridors & potential enhancement opportunities.

9.8	WSCC would expect the ES to include a long-term site/habitat management plan covering all the existing and proposed areas of biodiversity interest.
9.8	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.
Appendix 9.9.1	Any future amendments to the HRA should be clearly identified in any update.
4.5.1	As stated in this section, air quality *issues that could arise during operation are increased traffic and emissions from the airport operations.* A detailed explanation of this would be beneficial. Does traffic mean increased car traffic to and from the airport? Do emissions from airport operations relate solely to the increased number of aircraft or does it also include associated operational vehicle movements around the airport, such as fuel, cleaning or luggage transport vehicles?
4.5.7-4.5.21	These sections appear to only address air quality issues arising from increased vehicle (presumably car) traffic. There is no mention of air quality impacts resulting directly from increased fights, and also airport operations.
4.9.1	The conclusion is too vague in terms of defining and assessing how air quality might be impacted during operation of the airport. Air quality is likely to be impacted by increased aircraft traffic and associated vehicle movements around the airport, as well as increased car journeys to and from the airport.
General	It is of concern that the non-technical summary states that for ecology and nature conservation, '*no permanent significant effects would arise as a result of the Project'* and '*no potential for significant cumulative effects has been identified'* given the assumptions and limitations of the assessment and maximum design scenarios. Absolute certainty such as this is not consistent with the vague language used in statements such as '*assets will be retained wherever possible…' and 'where practicable'*. This is referred to by the Planning Inspectorate in the Scoping Opinion.
Chapter 10 Geology and Ground Conditions	
10.2.24	Reference to safeguarding guidance is incorrect (2018 version referenced). Updated guidance published recently – https://www.westsussex.gov.uk/media/13437/mw_safeguarding_guidance.pdf Note that the correct reference is given in para 10.6.14.
10.4.8	Reference made to GAL undertaking a Mineral Resource Assessment (MRA), is supported.
10.6.13	JMLP date incorrect – updated in 2021 following the Soft Sand Review.
10.6.15	2016 data is used to assess brickworks – there is updated information in the latest WSCC AMR. West Hoathly brickworks has permanently ceased.
Table 10.7.1	The airport is underlain by Weald Clay (as identified). Although there are significant amounts of clay in the county, and sufficient reserves in the existing brickworks, MRA should be undertaken to identify the presence of minerals, in line with guidance, to avoid needlessly sterilising minerals (not just clay). Opportunities should be undertaken to extract any viable minerals

	prior to development. Materials found may be useable as part of the construction activities.
10.9.22	Reference to JMLP incorrect, and ref to 2016 data – as above, updated data available in the latest AMR.
10.9.23	Reference to using excavated material as a mineral to be explored – this is supported – but should include reference to aggregate and MRAs.
10.6.23 / general comment	Although Gatwick Airport falls within the Mineral Safeguarding Area (MSA) for Weald Clay, where there are other minerals, such as sand and gravel, needless sterilisation should be avoided. Reference is made to previous common excavation of these kinds of materials to facilitate construction of the airport. Opportunities to use materials on site to facilitate construction should be taken. These can reduce HGV movement of materials to Gatwick airport.
Chapter 11 Water Environment	
Table 11.2.1	Flood and Water Management Act 2010: the PEIR states East Sussex as the LLFA; this should read West Sussex.
11.4.18	This section states '*no project specific groundwater investigation has been undertaken at this stage'*. This may limit the mitigation measures outlined in relation to attenuation area and below ground storage.
11.6.35-36	Later sections related to groundwater state that groundwater levels may be between 0.7 – 1.2m bgl. Again, this may limit the mitigation measures outlined in relation to attenuation area and below ground storage.
Table 11.4.3	WSCC do not hold data regarding unlicensed groundwater and surface water abstraction.
11.6.94	Details that Pond A is used for retention of de-icer contaminated runoff, which then discharges to the River Mole. Pond A will be reduced in size during the construction and an over pumping facility will be installed to increase the rate at which this pond is emptied into the much larger Pond M. Mitigation measures should be outlined should the pumps fail, and contaminated runoff flows into the River Mole.
Table 11.8.1	Mitigation, Monitoring and Enhancement Measures: • Provision of compensatory flood storage: Clearly any compensatory flood storage must be provided outside of the existing and any revised floodplain; • Provision for new airfield syphons: Mitigation and maintenance measures should be outlined within any 'site operation manual' for the airfield syphons; and • Surface access improvements drainage strategy: Designer should aim for betterment with regards to surface water runoff not just pre-development values.
General	GAL should be aware of two WSCC documents relating to new development '*Water, People, Places'* and 'Sussex LLFA Policy for the Management of Surface Water'.
General	The River Mole catchment can be very 'flashy' after prolonged heavy rain. This is something that should be discussed with the Environment Agency and mitigation measures put in place for such events during the construction period.

Chapter 12 Traffic and Transport	
12.4.38	The assessment of severance based on traffic flow fails to take account of the impacts of changes in the composition of traffic. The criteria for assessment of severance should also take into account the impact of an increasing number of HGVs.
Table 12.4.6	Junctions operating over 85% of volume/capacity over an average time period can be very sensitive to increases in traffic volume leading to delays and traffic rerouting. A 4% increase in traffic volume on a link or junction operating at 99% of volume to capacity is likely to have a noticeable impact on users and sensitive receptors as volume would exceed capacity yet the proposed approach would categorise the magnitude of impact as 'low'. The V/C ranges used to classify the conditions at the junctions should be amended to; not significant (<85%), minor (85-90%), moderate (90-95%) and major (95%). This would ensure that changes taking a junction over capacity are either categorised as medium or high.
12.6.61	The acknowledgement of the importance of 'push' measures to achieving mode share targets is welcome. Although increasing parking and forecourt charges are stated to have been included in the strategic modelling for passengers, there are no similar measures for staff. GAL should introduce similar measures to support the achievement of staff mode share targets.
12.6.62	There is a gap between the impact of the measures assessed in 2038 and 2047 and the passenger mode share target of 60%. GAL should introduce additional measures to fill the gap between the assessed impact and the mode share target.
12.6.62	The impact of measures on sustainable transport mode share for staff is stated in Appendix 12.9.1 para 7.5.5 to achieve a 47% mode share. GAL should introduce additional measures to ensure the proposed mode share target of 60% is achievable and provide a rationale for the number of staff parking spaces due to be provided and the approach to management (e.g., pricing) of these spaces.
12.9.3	PEIR Chapter 5 Paragraph 5.3.99 states that any construction work in close proximity to existing runways and taxiways would be scheduled to take place overnight. It is unclear how this scheduling has influenced the construction trip generation forecast in Paragraph 12.9.3. Further information should be provided on the assumptions used to assess construction traffic impacts.
Appendix 12.9.1, Part 1, 6.1.9	The demand forecast for 2021 appears overly optimistic. It is unclear what effect this will have on the future forecast scenarios. GAL should revise the forecast to take account of the ongoing impacts of the COVID19 pandemic.
Appendix 12.9.1, Part 1, 6.1.9	Demand forecasting is inherently uncertain and the rate of growth in passenger demand could be higher or lower than forecast for a range of reasons, resulting in passenger demand reaching forecast levels earlier or later. The key assumptions explained in Chapter 4 regarding up-gauging by airlines and higher load factors suggest this is a central forecast rather than a worst-case scenario. GAL should provide an alternative 'high demand' forecast scenario to ensure the impacts of the project are understood in a worst-case scenario.
Appendix 12.9.1,	The reporting (Appendix 12.9.1, paragraph 6.2.7) states that "*the transport modelling assumes that the distribution of new employment will be comparable to existing employment*". COVID-19 has potentially changed where people work/live, which may also influence their travel behaviour, so

Part 1, 6.2.7	further evidence should be provided around this assumption and potentially sensitivity assessments should be undertaken to assess a different distribution and travel pattern of employees.
Appendix 12.9.1, Part 1, 7.2.2	The reporting (Appendix 12.9.1, paragraph 7.2.2) has a headline target of "*60% of staff journeys to travel by sustainable modes….by 2030*", which looks to contradict the modelling results that show "*employee mode share by sustainable modes of 36% by 2047*". Additional measures should be added to ensure the mode share target is achievable and evidence provided to substantiate the target.
12.9.1, Part 1, 7.2.2	Combining the target for staff sustainable transport mode share with low emission travel initiatives (i.e. zero emission vehicles) will not help to address congestion and also has the potential to abstract investment from initiatives that support sustainable modes of transport (i.e. bus, rail walking and cycling). The target for low emission initiatives should be separated from the target for sustainable modes of transport.
Appendix 12.9.1, Part 1, 7.4.1	The Croydon Area Remodelling Scheme and Lower Thames Crossing are not fully-funded or going through the relevant statutory planning process and should only be considered 'reasonably foreseeable' at this stage. As such, and in line with DfT's TAG, they should be removed from the core assessment to understand the impacts of the project without these interventions.
Appendix 12.9.1, Part 1, 7.6.8	The reporting (Appendix 12.9.1, Part 1, paragraph 7.6.8) states that "*Modelling shows an employee mode share by sustainable modes of 36% by 2047 and up to 43% including car share, comprising 15% rail, 17% bus and coach and 4% active travel*". It is unclear whether these mode shares are an input to the model or as an output. Further details on how these numbers are arrived at is required.
Appendix 12.9.1, Part 4, 4.9.3	The generalised costs used in the model were taken from TAG Data Book (July 2020 v1.14 -sensitivity test). The updated transport modelling for the DCO should use the latest available information (currently July 2021).
Appendix 12.9.1, Part 4, 7.2.2	TEMPRO 7.2 has been used to produce traffic forecasts but the DfT is due to issue an updated version in late 2021/early 2022. How will this be taken into account as part of the DCO?
Appendix 12.9.1, Part 4, 7.2.2	The assessment does not take into account the site-specific impacts of emerging development sites in the area. There are large strategic development sites such as West of Ifield, Gatwick Green and Horley Business Park close to Gatwick that are emerging through the respective locals plans. Due to their proximity to Gatwick, these sites will have a cumulative impact on some of the same parts of the network. The cumulative impact assessment should take these sites into account.
Appendix 12.9.1, Part 4: General comment	More detailed technical notes on inputs to the strategic model should be provided, specifically on building the base model and demand matrices, forecasting & mode choice assumptions.
Appendix 12.9.1, Part 5, 14.1.3	The reporting states that "*In terms of employees, the strategic model shows that a sustainable transport mode share of 47% is achievable and this would indicate that further measures are required, in particular these could include incentives around EV uptake as well as restrictions on staff parking"*. This statement appears to be contradicted by Appendix 12.9.1, Part 1, paragraph

	7.6.8, which states that modelling shows an employee sustainable transport mode share of 36% by 2047 and up to 43% including car share.
Appendix 12.9.1, Part 4, 10.2	Traffic flow change diagrams included in Appendix 12.9.1, Part 4 show differences between 2016 and 2029 and then between 2029 and 2032 and then between 2032 and 2047. There is no comparison of traffic change between 2016 and 2047 therefore the impact on the local road network is difficult to gauge and the true impacts may well be masked. Additional comparisons should be provided to show the differences between 2016 and 2032 and 2016 and 2047.
Appendix 12.9.1, Part 4, 10.3	The Annual Average Daily Traffic (AADT) flows diagrams are for the forecast years only, with no comparison against earlier year e.g. 2016. Comparisons should be provided to show the differences between 2016 & 2029, 2016 & 2032 and 2016 & 2047
Appendix 12.9.1, Part 4, 10.4, 10.5, 10.6	Journey time impacts (Appendix 12.9.1, Part 4, Section 10.4) have been shown for the 2029, 2032 and 2047 forecast years as a comparison between the 'future baseline' and the 'with project' so there looks to be no notable impact. There is no comparison of journey time between 2016 and 2029, 2016 and 2032 and 2016 and 2047 so true impacts may well be masked. Comparisons should be provided to show the differences between 2016 & 2029, 2016 & 2032 and 2016 & 2047.
Appendix 12.9.1, Part 5, 10.7	As with the journey times the Volume/Capacity (V/C) ratio is shown for the forecast years only with no comparison between 2016 and 2029, 2016 and 2032 and 2016 and 2047 so true impacts may be masked for both road link impacts and junction impacts. Comparisons should be provided to show the between 2016 & 2029, 2016 & 2032 and 2016 & 2047.
Appendix 12.9.1, Part 5, 12.2.10	The reporting (Appendix 12.9.1, Part 5, Paragraph 12.2.10) states that "*For HGVs and LGVs, the shift patterns in August 2027 mean that, for the busiest daytime shift, the monthly total construction vehicles are 14,508 vehicles, equivalent to 7,254 in one direction. When divided by 22 working days and spread over a 10-hour shift, the estimated vehicle trip generation*" is 33 Light Goods Vehicles (LGV) and Heavy Goods Vehicles (HGV) in and out an hour along the M23 Spur. The robustness is questioned, as there may be nothing to stop more construction trips arriving or departing in a hour period.
Chapter 13 Air Quality	
General	WSCC refers to comments made by Reigate and Banstead Borough Council (RBBC) with regard to air quality matters.
13.4.25	It is stated that Chapter 12: Traffic & Transport also includes an assessment for 2047. However, air quality is expected to improve in the future and current tools include predictions only up to 2030. It is acknowledged that predictions for 2047 would be uncertain but this does not justify the absence of a 2047 assessment, which should be provided in the ES.
13.4.30	The Air Quality reporting indicates that there are no significant impacts for construction and operation elements on human receptors and ecological receptors in the forecast years of 2024 (Construction phase), 2029 and 2032. It is acknowledged that predictions for 2038 will be uncertain but this does not justify the absence of a 2038 assessment of road vehicle emissions, which should be provided in the ES.
Chapter 14 Noise and Vibration	

General	WSCC refers to comments made by Crawley Borough Council (CBC) with regard to noise and vibration matters.
14.5.11	The noise and vibration reporting shows that there are some moderate adverse effects in areas immediately to the south of the Airport but these are subject to further study. This assessment should take into account that some of these areas have already been identified by DEFRA as Noise Important Areas.
Chapter 15 Climate Change and Carbon	
General	It is not clear if account has been taken of the cost of carbon and future abatement measures in the forecasts, which makes them inconsistent with the Government's Jet Zero Policy.
15.4.9	For the purposes of the assessment (and in the absence of data on other airports) the assumption is that landing emissions from inbound flights at Gatwick are equal and equivalent to the landing emissions for outbound flights at destination airports. WSCC would expect GAL to have the data and be able to confirm if the landing emissions are equal. The assessment also does not refer to relative impacts of different measures to decarbonise aircraft emissions. Without this information, comments cannot be made on the matter.
15.6.5	WSCC requires further justification that Gatwick Airport does not experience a detectable urban heat island effect. This needs to be presented within the ES.
15.9.1	This section outlines risks but the assessment itself is limited e.g., building overheating is presented, but little other impacts are included.
15.9.2	The information presented here is a mixture of impacts and proposed mitigation actions. This needs to be presented more clearly in the ES.
15.9.12	WSCC questions the impact scoring for the In-combination Climate Change Impacts Assessment. For a project of this scale, how can non-significant impacts be assessed?
Table 15.8.2	*The strategy to include new impermeable areas (road and airfield infrastructure) will reduce additional surface water runoff, thus increasing resilience to extreme weather events in future* – impermeable areas are likely to increase surface water runoff, not reduce it.
15.8.2 and 15.6.14	15.8.2 refers to increased de-icer loading, while 15.6.14 states less de-icer. Clarification is required here.
15.8.3	The text states that Low and zero carbon design and performance standards will be applied to new infrastructure. WSCC would expect exemplar Zero carbon design throughout and renewable energy infrastructure as standard, not as mitigation for new development.
General	There are statements made throughout this chapter on energy and water use, waste generation, wastewater production and construction phase mitigation. These are approaches that should be industry standard best practice. As referenced in the 'Our Sustainability Policy' (to 2030), there are projects already underway to address many of these issues.
Appendix 15.4.2 Table 3.3.2	Climate hazards seem limited in application. High temperature is relevant to airport infrastructure and high winds are applicable to airport operations.

Chapter 16 Socioeconomic Effects	
16.2.3	The strategic documents referenced highlight the LEP strategies and work towards local Industrial Strategies. This work is effectively paused, and a Government LEP review is imminent.
16.6.19	Highlights as a key issue that the Census shows the occupation of residents in the local study area is more skewed towards services and other elementary occupations and less towards managerial and professional roles when compared with the labour market area and five authorities' area. There is no indication of the impact of the proposed development on this issue. There is reference to these issues in the supporting documents, but it is not reflected in this chapter.
General	The geographies used as the 'study area' and 'labour market area' are muddled and not consistent throughout the various documents – the PEIR has the Local Study Area and the Labour Market Area; the Economic Impact Assessment uses the Gatwick Diamond and C2C LEP area.
16.4.8	States that the study areas are cumulative, so wider areas incorporate the smaller areas; therefore, clarity is needed on what is being referenced across all reports.
General	This chapter refers to trends in the Local Study Area – however, because this area includes the whole of Crawley Borough and only parts of the other local authorities (Horsham, Mid Sussex, Reigate and Banstead, Tandridge and Mole Valley) the overview is skewed. It would be useful if there was more teasing out of the differences amongst those local authorities, for example: 16.6.1 growth in population (2011-2020) in 65+ is 21% in East Sussex and Kent 22%, compared to 9% in Brighton and Hove; Brighton and Hove see an 8% increase in 16–64-year-old population compared to 0.9% in East Sussex. 16.6.2 the local study area has a younger population than the wider area – that is to be expected because of the younger population make up in Crawley; in 2020 Crawley has an average younger population than the rest of West Sussex, older age population make up a much higher % of total population in e.g., Arun at 29% - compared with Crawley at 14%; Brighton and Hove 16-64 year olds make up 71.3% of total population compared with East Sussex at 57% and West Sussex at 59%. 16.6.8 the local study area is more diverse in terms of ethnic groups and religion – because of the make-up of Crawley – it is a very different picture in those Surrey and West Sussex authority areas. 16.6.12 there is a need to caveat the use of the Annual Population Survey because the sample is so small and is not robust only indicative of trends and the survey has been undertaken during COVID in a different way to previous surveys 16.6.17 why is Job Seekers Allowance referred to and not either the full Claimant Count or the Alternative Claimant Count? Most people claiming benefits primarily because they are out of work will claim Universal Credit. 16.6.19 Occupations - There needs to be more around the differences in the trends between the local authorities and the smaller areas of the local study area – as well as the differences in occupations of residents and occupations of workers in the area.

	16.6.28 states that workplace earnings are lower than resident earnings across the labour market area – but this is not the case for Crawley – again, showing the difference in Crawley to the rest of the areas. 16.6.33 deprivation is more prevalent in urban areas but particularly in coastal local authorities. 16.6.53 It is worth noting that Crawley has one of the highest % of large enterprises in the country so will therefore skew the figures for the local study area. 16.6.64 reference to other FE/HE provision in the local study area should be considered – Haywards Heath? East Surrey (Redhill) North East Surrey College - Epsom and Ewell? 16.6.84 house prices – Crawley does not necessarily have the range of housing types that perhaps other areas within the local study area have – what about prices in Horsham compared with Surrey? There is no information provided about the increases since COVID? 16.6.101 projected total labour supply – are economic activity rates dependent on ages? Is there account taken of older working age into the future?
General	The increase in capacity is also expected to facilitate the growth of freight by 10% in 2029, 27% in 2038/9 and 20% in 2047/48 – is this realistic given that most freight is transported from Gatwick in passenger rather than cargo planes?
Chapter 17 Health and Wellbeing	
17.9.31	It is stated that there will be loss of public open space along the boundaries of Riverside Garden Park and as a mitigation measure, new areas will be created to serve all users but will not be immediately contiguous with the park. This does not provide enough reassurance that mitigation measures will be targeted at communities or groups impacted by the loss. GAL should provide further information around where the new open space will be situated and demonstrate that this will be easily and equally accessible to current users and communities around the garden park.
17.9.32	Due to the nature of effects the project may have on communities living in the study area, and the mechanisms (some psychosocial) through which these are mediated, WSCC strongly encourage that any evidence collected to make assumptions on the impact of the project on health, incorporate information provided by these communities. Also, where there are claims of loss of portions of green spaces not having an adverse impact on the integrity of the park, or conclusions that proposed changes to existing amenities are beneficial, GAL must demonstrate that this inference has be drawn from evidence, which includes feedback from communities in the study area.
Table 17.3.1	There is no evidence in the chapter to demonstrate that consideration has been given to the impact of the project on certain vulnerable groups, as highlighted by the Planning Inspectorate. Classifying every group as highly sensitive does not sufficiently address this issue. Certain groups, including the elderly and people living with disabilities, may be more adversely impacted by reconfiguration of public open spaces and paths and diversions of PRoW or even the slightest changes to noise levels. For example, noise that may be considered tolerable for the general population may be distressing or disorientating for individuals living with dementia. In addition, WSCC would like a clearer and more detailed description of the impact of the project on care home residents and schools within the study area, particularly from a

	noise and air quality perspective, and to what extent mitigation measures will reduce any adverse effects.
General	Further to the point above, it would be beneficial for GAL to undertake an Equality Impact Assessment to understand how the project may impact on different groups and ensure that certain individuals are not put at a disadvantage or discriminated against as a result of the project activities. This would also ensure that mitigation measures can be tailored to avoid harm to equality. This is especially relevant since in a 2018 Appraisal of Sustainability, prepared by the Department for Transport, it was predicted that addition of a second runway to the existing main runway at Gatwick may increase inequality gaps experienced between certain vulnerable groups and the general population. It should be noted that more deprived populations are also likely to be disproportionately affected by adverse impacts.
General	WSCC advise that the impact of the project on local health services is considered. To assess this impact, it would be beneficial to know, if possible, what the average GP to patient ratio in the study area is, if this already exceeds acceptable limits, how it compares to other areas locally and nationally, to what extent workforce number projections will affect this ratio. Furthermore, the mitigation measure proposed in Table 17.8.1 does not seem to address the potential impact of population increase on acute services.
Table 17.3.1	In addition to impact from increased population size due to the workforce from the project, the Planning Inspectorate have advised '*an assessment of the impact on local primary health care, acute services and emergency responders from additional passenger movements, where these are likely to result in significant effects'*. WSCC could not find any indication that this had been assessed in the chapter. This is particularly important, as from practical experience in West Sussex, a higher throughput at Gatwick airport has often led to an increased demand for health services.
17.9.12	There is insufficient information in the chapter on measures that will be implemented to mitigate the adverse effects of construction and operational activities. As such, there is limited reassurance around this. Where construction compounds are to be located close to parks and open public spaces, the project may have an impact on enjoyment of recreational activities in these places. WSCC would therefore want to see that this has been considered in sufficient detail and presented in this chapter.
General	WSCC advise that results be presented with a detailed description of the statistical methods used, including all variables accounted for and those not included in the analysis models. This would enable a better interpretation of the results, which seem not to be in line with what should be expected. WSCC advise a more detailed definition of the populations in the study area and a clear description of evidence supporting each assumption made.
General	There is no indication in the chapter that consideration has been given to the impact on small and medium sized businesses, or where this is cross referenced from other chapters. It is advised that this is included, considering the influence it could have on health and well-being. Furthermore, Crawley was identified by the Government's Social Mobility Commission as having the worst social mobility in the whole of the South East region, therefore it is vital to consider the nature and quality of work and how this benefits residents and future generations when discussing the economic benefits of the project.
Chapter 18 Agricultural Land Use and Recreation	

18.4.1	WSCC wants to see the addition of the following guidance: • The Government's Guide to Assessing Development Proposals on Agricultural Land (2021); • The Government's Safeguarding our Soils strategy (2009b), and is supported by the Defra Construction Code of Practice on the Sustainable Use of soils on Construction Sites (Defra, 2009a); • West Sussex Transport Plan (2011-2026); • draft West Sussex Transport Plan (2022-2036); • West Sussex Walking and Cycling Strategy (2016-2026); • West Sussex Rights of Way Management Plan (2018-2028); • Environmental Impact Assessment: Appraising Access (2020) – The Institute of Public Rights of Way & Access Management (IPROW)
18.4.6	A figure showing the study area (not just the PEIR boundary) would be helpful in aiding the stakeholder to understand the geographical scope of the assessment.
Appendix 18.6.2	No survey methodology has been provided for the soil surveys. Was this agreed with relevant stakeholders? How was the study area defined for the soil survey?
Table 18.18.1	These mitigation measures should be further defined to include dates / phases for when they will be implemented, i.e., is this a mitigation through the design process, or an element of construction practice? Where relevant, they should also outline how they are intended to be secured through the DCO. This will allow for a robust predication of residual effects.
18.9.14	It would be beneficial to have a PRoW strategy document to show how any construction impacts are dealt with appropriately and show how impacts on the public users will be kept to a minimum. This will need to include matters such as temporary impacts, e.g., closures during works, but also more permanent changes to the network through diversions that may be necessary. WSCC would not support permanent closures of routes due to development and would hope that routes will be able to be accommodated on their legal line or on newly diverted routes to accommodate any proposed development.
18.9.18	WSCC would expect to see improvements to the local PRoW network as part of these proposals. Particular opportunities include improvement and also possible upgrade of the Sussex Border Path, potentially to Bridleway, offering opportunities to cyclists and walkers particularly, which could tie into the road improvements proposed that would improve sustainable transport options for local residents, employees and leisure users. These opportunities may also be possible east of the South Terminal so as to offer sustainable transport options from the airport to Tinsley Green.