



GATWICK AIRPORT NORTHERN RUNWAY PROJECT DEVELOPMENT CONSENT ORDER

Planning Inspectorate's Reference: TR020005

JOINT WEST SUSSEX LOCAL IMPACT REPORT March 2024

Crawley Borough Council (IP Ref: GATW-AFP107)

Horsham District Council (IP Ref: 20044739)

Mid Sussex District Council (IP Ref: 20044737)

West Sussex County Council (IP Ref: 20044715)

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Glossary of Terms

The Authorities	West Sussex authorities comprised of Crawley Borough Council, Horsham District Council, Mid Sussex District Council and West Sussex County Council.
The Applicant	Gatwick Airport Ltd (GAL).
The Project	Gatwick Airport Northern Runway Project Development Consent Order.
DCO Limits	The limits shown on the Works Plan within which the authorised Project must be carried out.
Q Bar	Mean annual flow of surface water from a site.
Six Authority Area	East and West Sussex, Surrey, Kent, Croydon and Brighton
WILLO Holding Stack	Planes arriving into Gatwick follow prescribed routes. Aircraft enter a holding stack usually during busy periods. The WILLO stack operates to the south of Horsham, over Haywards Heath and north of Brighton. (A second stack, known as TIMBA stack, operates over East Sussex)
WIZAD	A departure route or flight path which cannot be used for scheduled departures, only in the event of congestion to the North of Gatwick airport and only when pilots are familiar with the route. Known as a "tactical offload route", its use is limited to daytime (07:00 to 23:00).
PA 2008	The Planning Act 2008

Acronym	Definition
AADT	Annual Average Daily Traffic
AEP	Annual Exceedance Probability
AHSPD	The Crawley Borough 'Affordable Housing Supplementary Planning Document' adopted November 2017
ANPS	Airports National Policy Statement
ANA	Archaeological Notification Area
AONB	Area of Outstanding Natural Beauty (also known as a National Landscape)
APF	Aviation Policy Framework
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
ASAS	Airport Surface Access Strategy
ATM	Air Traffic Movements
BAP	Biodiversity Action Plan
BML	Brighton Main Line
BNG	Biodiversity Net Gain
BOA	Biodiversity Opportunity Area
BPM	Best Practicable Measures

BREEAM	Building Research Establishment Environmental Assessment Method
CAA	Civil Aviation Authority
CAP	Carbon Action Plan
CARE	Central Area Recycling Enclosure
CBC	Crawley Borough Council
CCA	Climate Change Allowance
CCR	Climate Change Resilience
CoCP	Code of Construction Practice
CBLP	The Crawley Borough Local Plan 2015-2030 (adopted December 2015)
CEA	Cumulative Impact Assessment
CORSIA	Carbon Offsetting and Reductions Scheme for International Aviation
CRMP	Community Risk Management Plan
CRWMP	Construction Resource and Waste Management Plan
CRR	Community Risk Register
DAS	Design and Access Statement
DMP	Dust Management Plan
DCO	Development Consent Order
DEN	District Energy Network
DfT	Department for Transport
DPD	Development Plan Document
EATs	End Around Taxiways
ECow	Ecological Clerk of Works
EIA	Environmental Impact Assessment
ExA	Examining Authority
ERS	Emergency Response Standards
ES	Environmental Statement
ESBS	Employment, Skills, and Business Strategy
FEGP	Fixed Electrical Ground Power
FEMA	Functional Economic Market Area
FRA	Flood Risk Assessment
GAL	Gatwick Airport Limited
GCN	Great Crested Newt
GPDO	Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended)
GHGs	Greenhouse Gases
GISPD	The Crawley Borough 'Green Infrastructure Supplementary Planning Document' - adopted October 2016
HDC	Horsham District Council
HDPF	Horsham District Planning Framework
HGV	Heavy Goods Vehicles
HIA	Health Impact Assessment
HMA	Housing Market Area
HMO	House in Multiple Occupation

HMT	His Majesty's Treasury
IAQM	Institute of Air Quality Management
ICCI	In-combination Climate Change Impacts
IEMA	Institute of Environmental Management and Assessment
JMLP	West Sussex Joint Minerals Local Plan
LAQM	Local Air Quality Management
LCWIP	Crawley Local Cycling Walking Infrastructure Plan
LOAEL	Lowest Observable Adverse Effect level
LDS	Local Development Scheme
LEP	Local Economic Partnership
LERL	Land East of the Railway Line
LGV	Light Goods Vehicles
LIR	Local Impact Report
LMA	Local Market Area
LPA	Local Planning Authority
LSA	Local Study Area
LWS	Local Wildlife Site
mCBLP	Crawley Borough Local Plan <u>2023-2040</u> , Main Modifications Consultation Draft, February 2024
MPPA	Million Passengers Per Annum
MRA	Mineral Resource Assessment
MRF	Materials Recovery Facility
MSCP	Multi Storey Car Park
MSDC	Mid Sussex District Council
NCN	National Cycle Network
NDC	National Design Council
NERC	Natural Environment and Rural Communities Act 2006
NHB	Non-Home Based (workers)
NNNPS	National Networks National Policy Statement
NMDC	National Model Design Code
NOAEL	No Observed Adverse Effect Level
NPPF	National Planning Policy Framework
NPPW	National Planning Policy for Waste
NPS	National Planning Statement
NRMM	Non-Road Mobile Machinery
NRR	National Risk Register
NSIP	Nationally Significant Infrastructure Project
NSRA	National Security Risk Assessment
NWZ	North West Zone
OCTMP	Outline Construction Traffic Management Plan
OLEMP	Outline Landscape and Ecology Management Plan
PA	The Planning Act 2008
PADSS	Principal Areas Disagreement Summary Statements

PCSPD	The Crawley Borough 'Planning and Climate Change Supplementary Planning Document' adopted October 2016
PDR	Permitted Development Rights
PEIR	Preliminary Environmental Impact Report
PHE	Public Health England
Pro PG	Professional guidance on Planning and Noise for New Residential Development
PRoW	Public Rights of Way
PPG	Planning Practice Guidance
PRS	Private Rented Sector
RPG	Resilience Planning Group
SAC	Surface Access Commitments
SAF	Sustainable Aviation Fuels
SDNP	South Downs National Park
SOAEL	Significant Observable Adverse Effect Level
SPD	Supplementary Planning Document
SSWSI	Site Specific Written Scheme of Investigation
STF	Sustainable Transport Fund
SuDSs	Sustainable Drainage Schemes
TA	Transport Assessment
TAG	Transport Analysis Guidance
TMF	Transport Mitigation Fund
TPO	Tree Preservation Order
TWG	Topic Working Group
UAEL	Unacceptable Adverse Effect Level
UDSPD	The Crawley Borough 'Urban Design Supplementary Planning Document' - adopted October 2016
UFPs	Ultra Fine Particulates
UK ETS	United Kingdom Emissions Trading Scheme
UK HSA	United Kingdom Health Security Agency
WSCC	West Sussex County Council
WSI	Written Scheme of Investigation
WHO	World Health Organisation
WSFRS	West Sussex Fire & Rescue Service
WSI	Written Scheme of Investigation
WTT	Well-To-Tank
ZoI	Zone of Influence
ZTV	Zone of Theoretical Visibility

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1 Terms of Reference

- 1.1 Gatwick Airport limited (GAL) has submitted an application for a Development Consent Order (DCO), known as the Gatwick Airport's Northern Runway DCO (the 'Project'), to seek powers to enable dual runway operations at Gatwick Airport through altering the existing northern runway, lifting restrictions on the northern runway's use and delivering the upgrades or additional facilities and infrastructure required to increase the passenger throughput capacity of the airport.
- 1.2 This report constitutes the Local Impact Report (LIR) for the West Sussex County area involving two 'Host' Authorities, Crawley Borough Council (CBC) and West Sussex County Council (WSSC) and two 'Neighbouring' Authorities, Horsham District Council (HDC) and Mid Sussex District Council (MSDC). These are referred to jointly as 'the Authorities'. The relationship between the Order Limits and local authority boundaries is shown on the Location Plan [APP-013] and the Order Limits include land within the administrative areas of CBC and WSSC.
- 1.3 On 13th February 2024 (Reference AS-124-AS-143) the Applicant submitted a number of changes to the submitted Project. The Examining Authority (ExA) have not yet made a decision whether to accept these changes to the Examination. Therefore, this LIR does not take account of the proposed changes. The Authorities will make further representation on these proposed changes should these changes be accepted.
- 1.4 Section 104(2)(b) of the Planning Act 2008 ('PA 2008') requires the Secretary of State to have regard to LIRs in deciding applications. The PA 2008 defines an LIR as "a report in writing giving details of the likely impact of the proposed development on the authority's area (or any part of that area)" (section 60(3)).
- 1.5 Provided the LIR fits within the statutory definition, its structure and content are a matter for the Local Authorities. However, guidance is provided in the Planning Inspectorate's Advice Note One: LIRs (version 2, April 2012). This note states that the LIR should set out the local authorities' view of likely positive, neutral and negative local impacts, and give its view on the relative importance of different social, environment or economic issues and the impact of the Project upon them.
- 1.7 This LIR has been prepared in accordance with s60(3) of the PA 2008 and having regard to the guidance in the Planning Inspectorate's Advice Note. Accordingly, it seeks to assist the Planning Inspectorate by presenting the Authorities' assessment of the likely impacts of the Project, based on local information, expert judgement and evidence.
- 1.8 WSSC is the upper-tier local authority for the county of West Sussex as a whole and has a number of statutory responsibilities to provide services and discharge regulatory functions, which together affect a

great many aspects of the built, natural, and social environments. These functions include acting as local highway authority, waste planning authority, minerals planning authority, county planning authority, lead local flood authority, fire authority (including public safety), public health authority, education authority, and social services authority. WSCC also holds responsibility for maintaining the Definitive Map and the Historic Environment Record.

- 1.9 CBC is the lower tier authority and local planning authority in which a significant proportion of the DCO application site lies. CBC's functions include environmental health (including noise and air quality), planning, economic development, social housing, waste collection and recycling, provision of sports, open space and community facilities for the local community and public protection.
- 1.10 HDC and MSDC are neighbouring lower tier authorities whose statutory functions are the same as CBC. HDC and MSDC are parished district authorities. Whilst the views of the Town and Parish Councils are not reflected in this report, reference is made to Neighbourhood Plans where appropriate.
- 1.11 In producing this LIR, the West Sussex Authorities have not sought the views of local interest groups on any particular matters that should be reflected in the report, however, reference is made to local representations made to them where they support the findings set out in this document.

Methodology

- 1.12 This report describes the impacts arising from the Project under headings by topic. Under each heading the key issues for the Authorities and their local communities are identified and commentary is provided on the extent to which the Applicant addresses these issues by reference to the application documentation, including the DCO provisions, as relevant.

Identification – A topic-based approach

- 1.13 The LIR discusses:
- (i) the local impacts the Authorities wish to be brought to the attention of the ExA, by topic, which primarily relate to the topics as presented in the Gatwick DCO Environmental Statement (ES)

These are:

- Historic Environment
- Landscape, Townscape and Visual Resources
- Ecology, Nature Conservation and Arboriculture
- Water Environment
- Agricultural Land Use and Recreation
- Geology and Ground Conditions
- Air Quality

- Noise and Vibration
- Climate Change
- Greenhouse Gases
- Traffic and Transport
- Socio-Economic and Local Economy
- Cumulative Effects
- Health and Well Being

(ii) those topics not covered in the ES but which will result in local impacts.

These are:

- Construction Waste
- Operational Waste
- Major Accidents and Disasters
- Design and Sustainability

1.14 The topic-based sections contain an assessment of the positive, neutral and negative impacts during the construction and operation of the Project as well as areas where the Authorities consider there are further opportunities for improvement which the Project does not realise. Where negative impacts are identified, mitigation is recommended to, as far as possible, remedy them. These details are set out below. In this context the Authorities are using the term 'mitigation' in its broadest sense and so it also includes compensatory or offsetting measures (where appropriate). Appendix M concerns the draft DCO. It considers provisions which are a cause for concern for the Authorities and (where relevant) suggests alternative drafting which would address those concerns. For other provisions, the Applicant is asked to provide additional information. Appendix M does not include the Authorities' proposed changes and additions to the s106 Agreement discussed throughout the LIR. These are currently under negotiation with the Applicant and an update in respect of the s106 agreement will be provided at Deadline 2.

Data gathering - an evidence-based approach

1.15 The Authorities have based their evaluation of the local impacts on evidence gathered and the judgement of specialists. This has included both officers from the Authorities, who have been consulted to identify the impacts in their own area of expertise, and those external specialists contracted to support the Authorities (see Appendix A).

1.16 Wherever evidence has been used for the basis of highlighting a potential impact it has been fully referenced, so there is a clear audit trail to follow. This evidence gathering has been derived from a number of sources including:

- Local knowledge of the local area;
- Professional judgement;

- Knowledge gained on the Project via Topic Working Groups (TWGs) and consultation events during the pre-application period;
- Review and evaluation of the DCO documentation;
- Evaluation against individual Local Authority policies and procedures; and
- National Policy Statements.

Presentation of findings

1.17 For each relevant topic, the key issues for the Authorities were identified, and commentary provided on the extent to which the Applicant addresses these issues by reference to the application documentation, including the DCO articles, requirements and obligations, as relevant. For each topic area, this LIR sets out:

- National and local policy context;
- The positive, neutral and negative impacts of the Project during the construction phase, as anticipated by the Authorities;
- The positive, neutral and negative impacts of the Project during the operational phase, as anticipated by the Authorities;
- The suitability of the measures proposed by the Applicant to avoid, reduce, mitigate or compensate the identified impacts;
- Where applicable, proposals by the Authorities for alternative or additional measures to better address the identified impacts;
- The need for obligations and new or amended DCO Requirements.

Evaluating the nature of the impacts

1.18 Once the evidence was gathered on the potential impacts, the next stage was the implementation of a systematic approach to clearly indicate if these impacts were positive, neutral or negative and to explain why.

1.19 Furthermore, additional refinement was added to clarify when such impacts were likely to occur, for example during the construction or operational phases, or whether an impact would have a longer-term strategic impacts on the local area. Where issues were finely balanced, the Authorities relied on key specialists to draw on their experience and local knowledge to produce robust conclusions.

Exclusions to the themed based approach

1.20 There are a number of things this LIR purposely does not do:

- **Environmental Statement (ES):** The LIR does not replicate the ES.
- **Community consultation:** In producing the LIR, the Authorities did not consult the local community (as there is no duty to).

- **Representation of third-party comments:** It is not the purpose of this report to duplicate the representations of Parish Councils, organisations and members of the public that have been made to the Authorities or directly to the Applicant about this project (prompted for example, by the Applicant's consultations). The Authorities have encouraged such respondents to register with the Planning Inspectorate as 'Interested Parties' at the appropriate time so that their representations about the Project will be considered by the ExA.
- **Statement of compliance with National Policy Statements (NPS):** The Authorities have not at this stage included any concluded assessment of compliance with an NPS. However, the Authorities consider it helpful to refer to NPSs and other national policy as a framework for the assessment of impacts. NPSs have been used in relevant sections as a guide to matters of local impact that are likely to be relevant in the determination of the DCO application. The Authorities expect to return to the question of compliance with the relevant NPSs towards the later stages of the Examination, having regard to any further material provided by the Applicant which seeks to address the concerns of the Authorities as expressed in this LIR.

2 Description of the Area

Natural and built environment

- 2.1 Gatwick Airport is in the northern part of Crawley Borough, which is in the north eastern part of West Sussex. The airport and DCO Limits extend into Surrey (Reigate and Banstead, Mole Valley and Tandridge) to the north and northwest. Horsham and Mid Sussex Districts lie a short distance to the southwest and southeast of the DCO Limits respectively.
- 2.2 Gatwick Airport is an established use and its development and operation have already had a significant effect on the appearance and built environment in the surrounding area in terms of its physical form and impacts both positive and negative on the surrounding population.
- 2.3 The airport currently comprises a single main runway which is oriented west - east with a standby/ emergency runway located parallel to the north. Two terminal buildings serve the runways, the South Terminal located to the east and North Terminal to the northeast of the runways. South Terminal is directly served by Gatwick railway station which sits alongside it with the main railway line intersecting the airport land north-south. The principal road access to both terminals is via Airport Way which has direct access from Junction 9 of the M23 to the east and London Road (A23) which connects to the Longbridge Roundabout to the north and routes under the South Terminal building wrapping around the southeast corner of the airfield before heading south to the Manor Royal Main Employment Area and Crawley.
- 2.4 To the south of the airport is Crawley, a post war new town (population of 118,500 – 2021 Census) developed on a neighborhood principle with its Main Employment Area (Manor Royal) located north of the residential neighborhoods' providing some physical separation between residential properties and the airport. The whole borough of Crawley, including the Airport, covers just 4,497ha and its administrative boundaries are drawn very tightly around the town and the Airport. In recent years as the town has continued to expand and recent residential development such as Forge Wood (the last full neighborhood which can be built in the borough, located to the east of the main railway and east of Manor Royal) has resulted in more housing closer to the airport. While the presence of the airport in terms of noise is apparent to most Crawley residents, increasingly, the impacts of noise, air quality and public health on residents need careful management. The continued expansion of the airport in such a tightly constrained and populated area is a significant constraint.
- 2.5 To the west of the airport is Horsham District, the northeastern edge of which almost directly abuts the perimeter road of the airport at its south-western edge. The district boundary is approximately 380 metres from the end of the existing runway and 150 metres from the proposed works to the south of the airport. The market town of Horsham in the north-east of the district is the largest urban area and lies just 10 miles to the southwest of the airport. The district has seen significant development in recent years, with strategic scale mixed-use schemes

under construction, particularly in the northern and central parts of the district. Notable schemes include Land North of Horsham (“Mowbray”) and Kilnwood Vale, which have permission for 2,750 and 2,500 dwellings respectively, schools, employment space and other infrastructure. Both developments lie between Horsham town and Crawley. While the part of Horsham District immediately adjacent to the airport is rural, there are several established villages and smaller hamlets near the airport. Horsham District is characterised as an attractive area, comprising a network of fields bounded by hedgerows and interspersed with areas of woodland. There are two nationally important landscapes; The High Weald AONB (National Landscape) and the South Downs National Park (SDNP) both to the south of the Airport.

- 2.6 Mid Sussex District lies to the southeast of Crawley, on the eastern side of the M23. It is a predominantly rural District with nearly 50% being within the High Weald AONB and over 10% within the South Downs National Park. The District has 3 main towns: East Grinstead, Haywards Heath and Burgess Hill and several larger villages and smaller settlements. Mid Sussex has seen significant amounts of development in recent years including sites close to the administrative boundary with Crawley. Burgess Hill is the location of a Strategic Growth Programme, which will see the delivery of 5,000 new homes, 3,500 of which are being delivered by Homes England at Brookleigh.
- 2.7 The adopted Crawley Borough Local Plan Map 2015, ([PUB271702.pdf](#) ([crawley.gov.uk](#)) and the Local Plan Map (Modifications Consultation February 2024) ([Crawley borough Local Plan map modifications consultation February 2024.pdf](#)) identify a built up area boundary focused on the developed neighbourhoods of Crawley and a boundary for Gatwick Airport, the land within this airport boundary typically comprising built form and infrastructure connected with the use of the airport. All land in the borough beyond this airport boundary in visual terms is classed as beyond the built-up area boundary (i.e. open countryside) with the exception of the Gatwick Airport Beehive Area (land south of the A23 and east of Gatwick Road) which is developed having been the land immediately surrounding the original 1930’s Gatwick Airport Terminal. The DCO Limits extends beyond the Local Plan Gatwick Airport boundary into land considered open countryside, particularly including additional land to the southeast. Much of this open countryside within the DCO Limits (all land south of Brook Farm and Airport Way) is also designated as ‘Safeguarded Land’ protected from any development that would be incompatible with a future southern ‘wide spaced’ runway.
- 2.8 In landscape terms, the High Weald AONB lies to the south of Crawley, approximately 3km from the DCO Limits. The AONB (now National Landscape) includes a small area within Crawley, parts of north Horsham District and the northern part of Mid Sussex District. The airport occupies a low point within the Weald and its development to date has already had a strong influence on its surroundings with historic roads, field boundaries and other natural features already lost or altered through previous development. The landscape immediately adjacent to

the airport has no specific designations outside of the AONB. The airport can be seen from longer distance views including from Tilgate Park and Buchan Park both occupying higher land (on the edge of High Weald AONB) on the southern boundary of Crawley Borough. The airport can also be seen from viewpoints within the High Weald AONB at Turners Hill, Mid Sussex. The sky glow from the airport lighting can be seen over a wide area, including within the High Weald AONB.

- 2.9 Closer to the DCO Limits, the airport is contained to the north by the road infrastructure serving the terminals, bunds and noise walls and to the northwest by the River Mole and its associated tree belt /landscaping. Open views of the airfield are possible looking east from the western end of the runway from Charlwood Road and the surrounding countryside, although travelling eastwards along the southern boundary this road becomes more wooded providing some landscaping and screening from views to the south. The airport dominates views from the adjacent A23 where this runs parallel with the north and east boundaries. East of the railway, immediately to the south of Airport Way (as far east as Balcombe Road), land is used for airport parking, hotels and offices. Further to the south is more open countryside which also accommodates airport drainage infrastructure (alongside Crawley Sewerage Treatment works, the land provides a landscaped setting to the Project Limits and serves as a visual buffer to the residential development further south).
- 2.10 Much of the land within the airport is within flood zones 2 and 3 and various watercourses intersect the site, draining to the north. Key features include:
- (i) the watercourse of the River Mole and its tributaries intersecting the runway south to north before meandering along the northwest boundary and
 - (ii) the Gatwick Stream with its tributaries flowing northwards either side of the railway line before passing through Riverside Gardens and merging with the River Mole.
- 2.11 Flooding is therefore a major constraint for the current airport and detailed consideration of the development and proposed mitigation will be essential in the review of this project to prevent impacts upstream (in West Sussex) and downstream (in Surrey).
- 2.12 The South East of England (which includes Crawley, Horsham, Mid Sussex and Gatwick) is an area of serious water stress as identified by the Environment Agency¹ and development is expected to be planned to a high standard of water efficiency in order to address this. Although not affecting Gatwick Airport, much of Crawley and all of Horsham District lie within the Sussex North Water Resource Zone where, due to the impact of water abstraction on internationally designated habitats, all development must be water neutral by significantly reducing its water

¹ <https://www.gov.uk/government/publications/water-stressed-areas-2021-classification>

use and then also offsetting any remaining water use by reductions elsewhere within the Water Resource Zone². The need for development to demonstrate Water Neutrality has significantly impacted the rate of development coming forward in the Zone.

- 2.13 In respect of other ground conditions, much of the land within the DCO Limits has potential for contamination given its long-standing operational use as an airport. The site contains several known archaeological areas including to the east of the railway line evidence of Roman and Iron Age occupation and a Medieval Moated site in the southwest (Purple Parking area). Evidence of a Bronze Age Settlement has been documented just beyond the NW site boundary (northern bank of the River Mole). There are no listed or locally listed buildings within the DCO Limits although a number are nearby that need further consideration.
- 2.14 In ecological terms, the DCO Limits has excluded all areas of Ancient Woodland, although Brockley Wood in the northwest zone is fully enclosed by it. There are 3 further areas of Ancient Woodland, one in the northwest and two east of the railway, adjacent to the Project's boundary, and the impacts must be considered on these and on other protected species and areas of TPO protected trees. All land east of the railway and within the DCO Limits but outside of the CBLP airport boundary is identified as a Biodiversity Opportunity Area (CBLP policies ENV1 and ENV2).
- 2.15 In 2019, Gatwick Airport accommodated 285,000 Air Traffic Movements (ATMs). The majority of the ATMs related to the airport fly over parts of West Sussex and can have adverse environmental and social impacts upon communities within the County.
- 2.16 Mid Sussex and Horsham Districts are overflowed by departures and arrivals from Gatwick, and by flights linked to other airports including Heathrow (although these flights are normally at higher altitude, but still noticeable). Rural parts of Mid Sussex including the High Weald AONB and South Downs National Park are routinely overflowed by both arrival and departure routes. The southern part of Mid Sussex is overflowed by aircraft using the WILLO holding stack, which results in more concentrated over flight of Burgess Hill, Hurstpierpoint and Hassocks and rural areas of the District and the South Downs National Park. Horsham overflight generally affects the northern part of the District, including the villages of Rudgwick, Warnham and Rusper. However, villages as far south as Billingshurst (approximately 22km to the southwest) and as far west as Slinfold (approximately 16km to the southwest) regularly experience disturbance from overflight.

Economic Background

- 2.17 Crawley, Horsham and Mid Sussex are key contributors to the Gatwick Diamond economic sub-region and the wider Coast to Capital Local Enterprise Partnership (LEP) area. The presence of Gatwick Airport contributes significantly to the sub-regional economy, although each

² <https://www.westsussex.gov.uk/planning/water-neutrality/>

area has its own distinct economic profile and sense of identity. Crawley, Horsham and Mid Sussex form a Functional Economic Market Area (FEMA), as evidenced through work on the respective Local Plans.

- 2.18 Crawley is firmly established as the dominant economic driver, representing the geographic and economic heart of the Gatwick Diamond and the wider Coast to Capital LEP area. Through its excellent transport links Crawley continues to be well connected internally, nationally and internationally. In addition to Gatwick Airport, Crawley is home to Manor Royal, the region's premier business destination, which employs over 30,000 people across an area of 240 hectares.
- 2.19 Given the significant role of aviation and related sectors, Crawley's economy was significantly affected by the Covid-19 pandemic. In response, the Crawley 'One Town' Economic Recovery Plan (2021) and Submission Local Plan 2023-2040 identify the diversification of Crawley's economy as a key priority, seeking to facilitate its adaptation and increase its resilience to unforeseen economic change. Limited employment land supply has historically been a key economic constraint, but the proposed allocation of a new Strategic Employment Location at Gatwick Green will help achieve the necessary broadening of Crawley's economic profile and meet existing employment needs in the borough. Any future supply of employment land is, however, constrained by the requirement to safeguard much of the remaining open land in Crawley for a potential future southern runway. More broadly, there remains an understood need to address social mobility within the borough, recognising that there remains a significant gap between the on-average lower wages of Crawley residents compared to the on-average higher wages of the in-commuting workforce.
- 2.20 Mid Sussex has high levels of employment and residents have a high average educational attainment and low levels of deprivation. Mid Sussex is an important part of the sub-regional economy, with sector specialisms in the manufacture of computer, electronic and optical products; scientific research and development; high tech financial service activities; the creative and digital industries and life sciences. Economic challenges facing the District include high levels of out commuting, low job density and housing becoming increasingly unaffordable as house price growth has outstripped that of workplace earnings. In April 2022 Mid Sussex adopted a new Sustainable Economy Strategy and Action Plan, which seeks to deliver high-value employment development within the District, such as the proposed Science and Technology Park to the north of Burgess Hill.
- 2.21 The labour force in Horsham District is highly educated and contributes to the 45,000 businesses and 500 international businesses within the Gatwick Diamond as a whole. While Horsham town is a key employment centre, there are many businesses and jobs located in the smaller settlements, and within rural areas.
- 2.22 60% of the residents of Horsham District live and work within the District, with 40% commuting beyond the District's boundaries. Many of

these people are employed locally in Crawley and Mid Sussex, which, together with Horsham District, forms part of the Northern West Sussex housing market area (HMA), which is one of the two main housing market areas in the District, the other being a smaller area in the south-east of the District in the Sussex Coast HMA. London is also an important employment destination for residents.

Demography

- 2.23 At the time of the 2021 Census the population of West Sussex was 882,800 people, up by over 75,000 or 9.4% from the 2011 Census, a higher percentage increase in population than the national and regional average and also higher than the neighbouring upper tier authorities of Surrey, Hampshire, East Sussex and Brighton and Hove. The growth rate over this time was highest amongst the older age groups (over 65s), in line with national and regional trends with Horsham seeing the highest percentage increase of 31% for over 65-year-olds. Crawley's population, at 118,500 makes up 13.4% of the total.
- 2.24 The working age population of the county (20-64 years) made up 55.4% of the total population, lower than the national average. Generally, the northeast of the county (Crawley, Horsham and Mid Sussex) has a higher proportion of working age population than the coastal districts and is fueled by Crawley's younger population, with the median age being 37 years of age compared to the county average of 44 years. The working age population in Crawley makes up 61% of the borough's total and Crawley has a much more ethnically diverse population than the county as a whole, with 50.2% of Crawley's population is female and a lower proportion of its population disabled (as defined under the Equality Act 2010) compared to the national average. Crawley has a considerably lower proportion of residents with higher-level qualifications (NVQ4+) at 33.2% than Southeast England as a whole (41.4%). There are also 7.6% of residents with no formal qualifications, significantly higher than neighbouring districts. This skills gap means that residents earn considerably less than those commuting into the borough, an average weekly wage of £558.70 compared to £632.80 for in-commuters. There are also pockets of high multiple deprivation, particularly in Crawley's western neighbourhoods of Bewbush and Broadfield, and in Langley Green just to the south of the airport.
- 2.25 Residents of Horsham District generally comprise a mix of young families and older retired households. Younger individuals often move away from the area during their twenties and return in their 30s and 40s when they start a family. The cost of housing is high, with the median house price in the District around 13 times higher than average annual earnings. The cost of private renting also remains high, and these prices create a high demand for affordable housing in the District. It is increasingly difficult for people to stay, or move into, the District.
- 2.26 There is an ageing population in the District, with Horsham having seen an increase in the proportion of over 65s that is well above the national average, meaning the number of retired people living in the District is

likely to increase. Consequently, there is a need both to provide for the specific needs of older people, and to ensure people are encouraged to live and work in the District.

- 2.27 Mid Sussex has a growing population, with a 5% increase expected by 2031. Almost 90% of this increase will be in the 65+ age group. Proportionately, the District has a larger working population than West Sussex, 60% are aged 16 – 64 years. The District has a high proportion of economically active residents (79.8%) and low levels of unemployment (2.5%). There are high levels of commuting into and out from the District; 35% of working residents commute out of the District.
- 2.28 Earnings of full-time workers who live in Mid Sussex are higher than those who work in Mid Sussex. There are low levels of deprivation, although there are pockets of skills deprivation amongst young people in the three main towns. House prices are high with the average cost of a residential property 13.4 times median workplace earnings.

Transport

- 2.29 Gatwick Airport is well connected by all modes of transport, providing a choice of how airport staff and air passengers travel to and from the airport. The airport can be accessed directly from the Strategic Road Network (SRN) via the M23 motorway, that runs north-south, east of the airport. Junction 9 of the M23 provides direct access, via the M23 Spur and Airport Way, to both the Southern and Northern airport terminals. The M23 provides routes and access to the wider region including London, via the M25 and to Brighton and the South Coast, via the A23, which also provides access to West and East Sussex via the A27 and A272. The A264 runs east – west across the north of the County, linking to Gatwick via the M23, the A23 or the local road network.
- 2.30 Gatwick Airport is served by a dedicated railway station, on the Brighton Main Line, that provides daily services to/from the airport. The railway station is located at the South Terminal. As well as being served by rail services on the Brighton Main Line, the train station is also served by trains on the North Downs and Arun Valley Lines. The Gatwick Express service provides routes to London and Brighton, whilst Southern, Thameslink and Great Western also operate train services to the airport. For passengers arriving at the airport via rail, who are flying from the North Terminal, there is an inter-terminal shuttle system that operates between the North and South Terminals. This is run by GAL and operates 24 hours a day.
- 2.31 Gatwick Airport is also served by various local bus services and coach services, to both terminals. WSCC as the Local Transport Authority has a statutory duty to secure additional bus service provision where it considers the public transport needs of the local population would otherwise not be met. The West Sussex Bus Strategy 2018-2026 highlights that new services are only likely to come forward if funded through fares driven by new development or through contributions

- secured through development. Engagement with bus operators indicates that early uptake is key to setting behaviors and to encourage and facilitate ongoing bus use and continued viability and provision.
- 2.32 Crawley town is well served by a rapid guided bus service, Fastway, and further investment is to come through regeneration at Crawley Station Gateway bus station.
- 2.33 Horsham and Mid Sussex Districts are more rural in character than Crawley Borough and there is limited access to the bus network across much of the Districts as a result. Most bus services operate commercially, but WSCC also supports buses and community transport (including those deemed to be important for the community but not commercially viable) through funding, which has been reduced significantly in recent years due to budget pressures.
- 2.34 In Horsham District, 88% of households own at least one car compared with a regional average of 81% and a national average of 74%. 76% of journeys to work from residences within the District tend to be taken by car. Additionally, the capacity of the main bus station in Horsham Town Centre now dictates the volume of the service provided. This has led to decreasing bus provision in recent years. Key parts of some of the routes in the District are impacted by congestion resulting in poor performance of services in terms of reliability and journey times. Some parts of key routes, for instance, along the A24 are also impacted by road safety issues meaning that bus stops have had to be decommissioned and services to some rural locations reduced or stopped completely.
- 2.35 In Mid Sussex, the key issues for bus service provision are that bus services in the towns are not frequent enough, there are no bus services over large parts of the rural areas of the district and bus journey times are slow at peak times due to congestion. Private bus operators run services connecting the three towns with many of the District's villages and larger regional centres such as Horsham, Crawley and Brighton, although some services are infrequent, and many do not operate in the evening or at weekends. Low passenger numbers have meant several bus services have been lost in recent years due to not being economically viable. Several community transport services also run in the District.
- 2.36 There are a number of footpaths and cycle routes to the airport. The airport can be accessed via walking and cycling from the surrounding area with access from Horley, Povey Cross and Crawley, although some of the footpath routes are very indirect or access along them constrained by drainage or footbridges. National Cycle Network 21 (NCN21) passes through the South Terminal and provides a cycle route between the airport and Crawley, Horley, Crawley Down and Reigate.
- 2.37 Crawley has one Air Quality Management Area (AQMA) declared by CBC in 2015 along Crawley Avenue and around Hazelwick Roundabout because the levels of nitrogen dioxide exceed what is permitted. This is

mainly related to road traffic emissions. Mid Sussex has one AQMA at Stonepound Crossroads in Hassocks. Horsham District has two AQMA's in Cowfold and Storrington. Transport emissions are one of the District's highest contributors to carbon emissions. Given the concerns around air pollution and the potential for traffic increases, the Council has declared the whole of the District as an 'Emission Reduction Area' and is also a member of the Sussex Air Quality Partnership. Monitoring of air quality in the District has revealed that some areas have high levels of nitrogen dioxide and therefore a key consideration for the Council is the impact of development on transport levels and air quality.

Other development in the area

- 2.38 In West Sussex there is significant pressure for social and economic growth. This is reflected in the significant amounts of development that have been experienced in recent years and that continues to be delivered through adopted and emerging Local Plans. This growth has the potential for cumulative impacts alongside the Project. The potential implications of this are considered in greater detail in Section 19 of this report.
- 2.39 In Crawley, only 42% of its housing needs can be met through new housing development within the borough boundaries. The confined boundaries of the borough and scarcity of land without physical and policy constraints (including the requirement to safeguard for a potential future southern runway) means the availability of suitable sites for housing is very limited. The respective adopted local plans for Horsham and Mid Sussex sought to assist Crawley in meeting this unmet need. However, it has become increasingly challenging for Horsham and Mid Sussex to continue to meet the unmet need arising in Crawley due to increases in their respective housing requirements and significant environmental constraints that exist in each District.
- 2.40 Table 2.1 sets out the most significant developments currently under construction, and the most significant development allocations in adopted and emerging local plans. In addition to this a map showing development in closest proximity to the Project site is shown in Appendix B.

Table 2.1: Significant development by local authority area

Local Authority	Status	Scale	Notes
Crawley Borough Council			
Residual Forge Wood Neighbourhood, including Steers Lane and Heathy Farm sites	Under Construction	1200 homes	South East of Gatwick

Crawley Town Centre Sites	Identified in SHLAA/Local Plan	Various sites totalling 2,987 homes	
Gatwick Green Strategic Employment Site	Allocated in Crawley Borough Local Plan Modifications consultation draft	Minimum of 17.83ha	East of Balcombe Road
Horsham District Council			
Kilwood Vale	Under construction	Up to 2,500 homes	Adjacent to Crawley
Mowbray / Land North of Horsham	Under construction	2,750 homes	North of A264, between Horsham and Crawley
Land North of Horsham densification	Reg 19 Horsham District Local Plan draft allocation	Proposal for an additional 500 homes is included in the emerging Horsham District Local Plan	North of A264, between Horsham and Crawley
Land West of Ifield	Regulation 19 Horsham District Local Plan draft allocation	Up to 3,000 homes	Directly abutting Crawley to west
Land West of Southwater	Under construction	540 homes	
Land Northwest of Southwater	Reg 19 Horsham District Local Plan allocation	1000 homes	
Land East of Billingshurst	Reg 19 Horsham District Local Plan allocation	Up to 650 homes	
Mid Sussex District Council			
Brookleigh, Burgess Hill	Under construction	3,500 homes	
Woodgate, Pease Pottage	Under construction	600 homes	Adjacent to Crawley
Heathy Wood, Cophorne	Under construction	503 homes	Adjacent to Crawley
Science and Technology Park, Burgess Hill	Development Plan allocation	23 hectare employment land allocation	
The Hub, Burgess Hill	Under construction	15ha Employment land allocation	
Brookleigh, Burgess Hill	Adopted District Plan allocation	10 ha Employment land	
Crabbet Park, Cophorne	Submission Draft District Plan allocation	2,000 homes	Adjacent to Crawley

West of Burgess Hill	Submission Draft District Plan allocation	1,250 homes	
Sustainable Community at Sayers Common	Submission Draft District Plan allocation	2,360 homes	

3. Project Description

3.1 In broad terms the Applicant is seeking consent to bring the existing standby/ northern runway into routine use for departures only. To enable the application, it involves lifting restrictions on the northern runway's use, repositioning it to the north (via associated construction works) and delivering the associated facilities and infrastructure required to increase the passenger throughput capacity of the airport. Applicant has put forward that the Project will enable an increase in passenger throughput to 80.2 million passengers per annum by 2047.

3.2 The Project involves associated works to the airfield, wider works to the airport estate and highway works. A summary of these works, as submitted in July 2023 (APP-030) is set out below:

- Northern/ standby runway repositioning the centreline 12 metres further north to enable dual runway operations, all arriving aircraft using the existing main runway, shared departures between the existing and northern runway;
- reconfiguration of taxiways to accommodate manoeuvring of aircraft and accommodate increased aircraft numbers;
- pier and stand alterations, including a new remote pier area to be served by autonomous vehicles, reconfiguration of existing stands and hold areas;
- reconfiguration of specific airport facilities; including maintenance and transport facilities, cargo facilities, airport fire station provision, one additional hanger and perimeter boundary treatments to mitigate noise;
- extensions to the existing airport terminals (north and south), including extension to departure lounge, retail space, baggage halls, check-in zone and security areas;
- provision of additional hotels and office space four new hotels (up to 1,250 bedspaces) and a new office block (5,000m² lettable floorspace);
- provision of reconfigured car parking including new car parks providing an additional 1,100 spaces;
- highway alterations; including new junction layout at South Terminal, new junction layout at North Terminal, enhancement of eastbound M23 spur, improvements to Longbridge Roundabout at A23/A217;
- surface access alterations including new and enhanced active travel routes for pedestrian and cyclists;
- public transport service enhancements on coach and bus networks;
- demolition and relocation of Central Area Recycling Enclosure (CARE) facility, including a building of up to 22 metres and a biomass boiler flue of up to 48 metres;

- water management including realignment of waterways, ponds and provision of an additional water treatment facility;
- reconfiguration of existing utilities, including surface water, foul drainage and power; and
- landscape/ecological planting and environmental mitigation.

4 Planning History

- 4.1 There is an extensive planning history for Gatwick Airport since it first became an aerodrome in the 1930's. Since that time the airport boundary has also changed. Notably the old 1930's 'Beehive' terminal building and an area around it to the south of the A23 have been removed while in the northwest, the airport has expanded significantly.
- 4.2 The planning history provided by the Applicant in Appendix A (APP-246) to the Planning Statement is incomplete, providing limited information on why the few cases listed are relevant to the Project. The Authorities note the Applicants response (AS-115) to the procedural decision letter (PD-007) which provides further information relating to the controls over the existing use of the airport. While AS-115 is technically correct in that there are no other planning controls dealing with the matters listed, there are additional controls in planning conditions relating to various areas, buildings and structures within the DCO Limits which need to be considered as part of the Project but which are not mentioned in AS-115. In the absence of any robust planning history provided by the Applicant, the Authorities are not satisfied that these planning restrictions have been properly considered as part of the DCO application.

Permitted Development Rights / Operational Land

- 4.3 It is noted that the DCO Limits do not represent all the land that the Applicant owns or has an interest in and the DCO Limits includes land that GAL do not own. It is unclear why the boundary has been drawn as it has; neither is the extent of land that the Applicant considers to be its operational boundary (currently or as proposed) clearly identified within the application documents.
- 4.4 Much of the airport development has been carried out using permitted development rights currently granted under Part 8 Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (GPDO). Permitted development rights do not allow the Local Planning Authority (CBC) to impose any planning condition which they could do if the development were subject to the planning application regime under the Town and Country Planning Act 1990. The extent of the permitted development rights and the lack of control are of great concern to the Authorities (see paragraphs 17.66-17.69 and 24.69).

Planning controls within the Project Area

- 4.5 The table in Appendix C of the LIR sets out a summarised planning history covering all the land within the DCO Limits and highlights examples where applications are subject to controls via planning conditions which remain in perpetuity and legal agreements. The history starts in 1979, the year of submission of the North Terminal

planning applications which resulted in a Legal Agreement being entered into which prevented construction of a new runway and controlled the use of the emergency northern runway for a period of 40 years. This legal agreement expired in August 2019, but the planning conditions imposed with the planning permission remain in effect. Those conditions clearly preclude dual (i.e. simultaneous) use of the runways and so limit Gatwick to being a single runway airport in terms of its capacity to accommodate air traffic. The application, CR/125/79 which consented the works for the Emergency Runway included Condition 3 which states:

“The emergency runway shall be used for the taking-off and landing of fixed-wing aircraft only during times when the main runway is temporarily non-operational by reason of an accident or a structural defect or when maintenance to the main runway is being undertaken. In all cases where maintenance is to be carried out other than in an emergency, the British Airports Authority will give at least 48 hours notice in writing to the Local Planning Authority. The emergency runway shall cease to be used as such as soon as the main operational runway becomes serviceable.

Reasons:

- 1. To comply with s41 of the TCPA 1971*
- 2. To enable the LPA to control the development.*
- 3. To preclude simultaneous use of the main runway and the emergency runway.*
- 4. To enable the LPA to exercise control in the interests of the amenities of the locality.*
- 5. To enable the LPA to monitor the use made of the emergency runway.”*

The Existing Section 106 Legal Agreement

- 4.6 The number of flights and passengers at Gatwick is not restricted by any extant planning permission or associated legal agreement. Since 2001, the Applicant has voluntarily committed to a suite of environmental management measures and other obligations through a s106 Agreement with Crawley Borough Council (CBC), as the local planning authority, and West Sussex County Council (WSCC), as the local highway authority. The legal agreement is not linked to any previous planning permission for any specific development, some of which have separate agreements (if required); rather it is, and has always been, a voluntary agreement on the part of the Applicant.
- 4.7 The current 2022 version of the Agreement sets out obligations regarding climate change, air quality, aircraft noise, surface access, development, community and economy, and Action Planning for water management, waste management and energy management.
- 4.8 The original 2001 Agreement had an expiry date of 2009. There was an extensive review process in 2007/2008 when some of the obligations were renegotiated before the s106 Agreement was

finalised and rolled-forward in December 2008. This involved discussion with the GATCOM Steering Group.

- 4.9 The 2008 Agreement had an end date of December 2015 and included an obligation for the three parties to commence re-negotiation in 2013. However, the Airports Commission was established in 2012 and the parties therefore agreed that, in light of the ongoing Airports Commission process, it would be premature to progress renegotiation. Therefore, the parties agreed to minimise changes to the December 2015 Agreement and to roll forward the Agreement to 2018 when it was anticipated the Airports Commission's recommendation, and subsequent Government decision, would be known.
- 4.10 It is important to note that the 'light touch' roll-forward of the 2015 Agreement was accepted as a pragmatic approach by CBC and WSCC, given the importance of ensuring that the existing financial contributions from the Airport continued and other obligations remained in place. However, both CBC and WSCC recognised that the rolled-forward agreement would not contain the more substantial level of mitigation that would be sought by both Authorities in a more thorough and full revision of the Agreement.
- 4.11 In 2019, the existing s106 was once again rolled-forward, rather than comprehensively reviewed, because GAL was about to publish its new Masterplan and commence the DCO process for the use of the Northern Runway. The Applicant assured the Authorities and other parties, including GATCOM, that any Development Consent Order granted for the Project would be subject to a new s106 governing the Airport as a whole, not just for any development authorised by the Development Consent Order. Again, the light touch roll-forward was accepted as a sensible option, with the Authorities considering the substantial comprehensive review of the s106 required would take place as part of the DCO process.
- 4.12 In 2022, the delays to the Project due to Covid again meant that only a light-touch review of the s106 was undertaken, with the Agreement rolled-forward with an expiry date of 2024. The parties are now discussing a further light touch review and extension of the 2022 Agreement to ensure it remains in place until any new s106 agreement supporting the DCO comes into effect.
- 4.13 In summary, although the current S106 Agreement is welcomed by CBC and WSCC, it has not been comprehensively reviewed since 2008 and the light-touch reviews (and rolling-forward) of the Agreement in 2015, 2019, and 2022 were agreed by the Authorities as pragmatic responses to the circumstances at those times. Furthermore, given that the Applicant voluntarily entered into the original 2001 Agreement and its subsequent iterations (rather than it being related to any planning permission), there has been very

little, if any scope, for CBC and WSCC to seek substantial changes to the Agreement. Accordingly, although both Authorities have signed the 2022 Agreement, and its predecessors, this should not be taken as an indication of CBC and WSCC being satisfied with its contents and the extent of the mitigation contained within it.

- 4.14 Although there are current obligations within the 2022 Agreement which the Authorities hope will be continued in any new Agreement supporting the DCO, there are other matters that need to be addressed which are not currently. In addition, major changes are required to the scope and scale of payments, including to the Community Fund, in light of the significant impacts of growth of the Airport as currently proposed by the Applicant. It is of note that the Applicant has proposed that the Community Fund to be provided in association with the development authorised by the DCO, is calculated in the same manner related to passenger numbers as in the 2022 Agreement. The Applicant has proposed that between 30 and 50 million passengers per annum, the sums to be paid into the Fund remain as per the 2022 Agreement. It is welcomed that the proposed amounts per 10 million passengers per annum are scaled up over 50 million, an improvement on the 2022 Agreement. However, the Authorities do not consider that the sums generated by the Fund will be proportionate to the environmental harm caused by the major expansion of airport activity, (effectively a doubling from the 2023 position in about 25 years), as was the Government's expectation in the Airports NPS. The sums proposed by the Airports Commission were far greater than those being proposed by the Applicant.
- 4.15 The Authorities are aware that obligations secured by a section 106 agreement need to comply with the 3 tests set out in Regulation 122 of the Community Infrastructure Regulation 2010. They must be a) necessary to make development acceptable, b) directly related to the development, and c) reasonably related in scale and kind to the development. The Authorities have had consideration to the Reg. 122 tests whilst considering the planning obligations that need to be secured and are satisfied that the obligations that they are seeking satisfy the tests. The Authorities are also satisfied that the obligations being requested are in line with current national and local policy.
- 4.16 The Authorities note that the first draft of the section 106 Agreement for the DCO proposed to continue the approach that only CBC and WSCC would be joined as parties. As regards the parties to the new agreement, the Authorities' position is that where a local authority is due an obligation, that local authority should be a party to the legal agreement. CBC does not consider it appropriate for it to play an intervening role in distributing funding. Once an obligation is agreed as due, the relevant local authority

should be made a party to the agreement (whether pursuant to section 106 or other powers).

Incompatible Controls

- 4.17 The Authorities are concerned that article 9 (planning permission) of the draft DCO could effectively erase any controls imposed by planning condition that GAL consider incompatible with the Project. While some controls relate to design details and potential incompatibility seem minor, it is unclear how other conditions or requirements have been addressed and which of those conditions (if any) the Applicant consider to be incompatible with the Project.
- 4.18 The following are examples of planning controls listed in Appendix C that remain in force in perpetuity.
- **Bird Hazard Management Plans** – a design detail, frequently requested by GAL Safeguarding team for sites typically in connection with new buildings to ensure that the roofs are managed to discourage nesting birds and minimise bird strike.
 - **Removal of permitted development rights** – typically for solar panels and roof telecoms on airfield buildings to ensure no conflict with airfield navigation.
 - **Restrictions to installation of external lighting** – applied to many new buildings and airfield developments principally relating to aviation safety. There are also cases where lighting controls were deemed necessary to protect nearby habitat.
 - **Maintenance of flood risk measures / Suds Designs and Maintenance** – with much of the land within the DCO Limits within a flood risk area, conditions have previously been applied to ensure drainage schemes are implemented and mitigation measures retained. It is unclear if the Applicant has checked to ensure that its Project is compatible with these agreed details. There is concern that if these are considered 'incompatible' there will be an increased risk of flooding to these building occupiers or elsewhere.
 - **Travel Plans** – many buildings within the airfield have specific Travel Plans agreed (via condition or through S106 Agreement) - These include the Boeing Hangar, and the Bloc, Hilton and Sofitel hotels.
 - **Office Use Restrictions** – retaining office space of airport related uses, again the Authorities.
 - **Retention of physical features such as wall and bunds on airfield** – an example is condition 4 of the North Terminal expansion planning permission (Application CR/125/79) which required an earth bank to be erected at the western end of the northern (emergency) runway as noise baffle. It was thereafter to be retained with no alterations to its height or position to take place without prior approval of LPA. The DCO seeks (by Work No 18) to remove and replace this noise baffle

at western end of the northern runway (and the method of implementation of any alteration to this feature will be key to ensure the nearby residents continue to be safeguarded from noise. For example, the works will need to take place prior to runway being operational.

- **Noise control measures** – an example, application CR/2017/0116/FUL requires the towing of aircraft into and around the Boeing Hangar during the night quota period of 23:00 to 06:00. On the airfield more widely there are also conditions which impose use restrictions on auxiliary power units, allowing their operation between 2300 and 0700 on the taxiways and aircraft stands only and, except in an emergency providing that *'no stop and start engine testing on the taxiways and aircraft stands between hours 2300 and 0700'* (CR/127/1979 - North Terminal).
- **Operational land restriction** – an example is application CR/1991/0239/FUL which granted planning permission for a pollution control pond, the application land is subject to S106 Agreement preventing it from being treated as operational land.

Comments on Applicant's Future Baseline (ES Chapter 4)

- 4.19 The table in Appendix D sets out the planning history in respect of the future baseline referenced in Chapter 4 (Existing site and Operation) of the ES (APP-029) and paragraph 2.5.7 in the Planning Statement (APP-245) where, the works need either an application or consultation with one or more of the Authorities.
- 4.20 For those works deemed permitted development, provided they are implemented in accordance with the details consulted upon and are not part of a project which would constitute EIA development, they can be implemented by the Applicant in the future.
- 4.21 The Authorities are concerned about the baseline assumptions in respect of the validity of the planning application for the Hilton Hotel car park, the deliverability of the Robotic Parking and the deliverability of the highway improvements as set out below.

Hilton Hotel Car Park

- 4.22 This car park is on private land. Outline permission (CR/2018/0337/OUT) was granted subject to conditions and a S106 Agreement with 'Reserved Matters' approved in March 2020 (CR/2019/0885/ARM). The hotel operator was then granted permission under a Section 73 application (CR/2020/0575/NCC) to vary the plans and building height, however this did not alter the time limit for implementation and the permission was not renewed as suggested by the Applicant at paragraph 4.4.6 of the ES (APP-029).

4.23 The permission expired on 5th March 2022 however the Applicant states that works are expected to recommence in 2023 or 2024. It has not been evidenced to CBC as the Local Planning Authority that the application has been lawfully commenced and therefore it cannot be relied upon.

4.24 Notwithstanding the status of the application, condition 4 (CR/2020/0575/NCC) limits the use of the car park to staff, visitors and guests of the Hilton (South Terminal), the use of the parking spaces are therefore not under the direct control of the Applicant.

Robotic Parking - South Terminal Long Stay Car Park, Zone B

4.25 This consultation made under the Applicant's Part 8 permitted development rights related to a section of Zone B car park which was to be fenced off to create 270 parking spaces (100 spaces net increase) for a robotic parking trial over a 3-month period. No further evidence or consultation has been provided by the Applicant about the results of the trial and at this point there is no certainty that this technology will deliver the 2,500-car parking space increase.

Highway Improvements

4.26 These schemes are on the National Highways network. The Authorities understanding is that the Applicant supported National Highways in applying for Designated Funds funding for these works, but this was unsuccessful, and the scheme is not currently funded. It is not guaranteed to come forward by 2029 as stated by the Applicant in paragraph 4.4.9 of the ES (APP-029). These highway improvements cannot be assumed in the baseline.

4.27 In summary, the delivery of circa 3,300 parking spaces stated in the baseline and the baseline highway works is questionable.

5 Planning Policy

National Planning Policy

Airports National Policy Statement

- 5.1 The [Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England](#) (June 2018) sets out the Government's policy on the need for new airport capacity in the South East of England. It particularly provides the primary basis for decision making on development consent applications for a Northwest Runway at Heathrow Airport, but states it will also be an important and relevant consideration in respect of applications for new runway capacity and other infrastructure for other airports in the South East.

National Networks National Policy Statement

- 5.2 The Project also involves significant highway infrastructure. The [National Policy Statement for National Networks](#) (December 2014), herein NNNPS sets out the need for, and Government's policies to deliver, development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. It provides planning guidance for promoters of NSIPs on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.
- 5.3 The relationship between the ANPS and the NNNPS in relation to the Project is discussed below in Chapter 6, paragraphs 6.1 to 6.10.

Aviation Policy Framework

- 5.4 [The Aviation Policy Framework](#) (March 2013) recognises that the aviation sector is a significant contributor to the economy and sets out the government's policy to allow the sector to continue to make a significant contribution to economic growth within a framework that '...maintains a balance between the benefits of aviation and its costs, particularly its contribution to climate change and noise.'³

Flightpath to the Future

- 5.5 [Flightpath to the Future](#) (May 2022) sets out a strategic framework for the aviation sector that supports the Department for Transport's vision for a modern, innovative and efficient sector over the next 10 years.
- 5.6 The strategic framework seeks to embrace innovation for a sustainable future. It supports the drive towards Jet Zero (see further

³ Paragraph 5, Aviation Policy Framework (March 2013)

below) and for a Sustainable Aviation Fuel to make up 10% of the UK fuel mix by 2030, whilst also supporting growth in airport capacity where justified.

Beyond the Horizon – The Future of UK Aviation: Making Best Use of Existing Runways

- 5.7 [Beyond the Horizon – The Future of UK Aviation: Making Best Use of Existing Runways](#) (June 2018), herein MBU, forms part of the government’s wider aviation strategy. It provides policy support for airports making best use of their existing runways (beyond Heathrow), however recognises that:

“the development of airports can have negative as well as positive local impacts, including on noise levels...proposals should be judged by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations”

⁴

- 5.8 The Authorities recognise that there is some ambiguity in the scope of MBU and whether it applies only to making best use of “existing runways” or more widely to “existing infrastructure” and also that there is some uncertainty about the nature and extent of the physical works proposed in the Project to reposition and resurface the emergency runway. The Authorities note the Applicant is to provide further details on the construction/engineering works involved and reserve their position on whether what is proposed is appropriately seen as making best use of an existing runway or is replacing it with a new runway, and thus the applicability of MBU to the Project, pending sight of that material.

Jet Zero Strategy: Delivering net zero aviation by 2050

- 5.9 [The Jet Zero Strategy](#) (July 2022) sets out how government seeks to achieve net zero aviation by 2050. It sets targets for CO₂ emissions reduction via key policy measures, including;

- System efficiencies, seeking to improve existing aviation systems
- Development of sustainable aviation fuels
- Zero emission flight, including a target of 2030 for domestic flights
- Markets for the removal of greenhouse gases via Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

⁴ Paragraph 1.29, Beyond the Horizon – The Future of UK Aviation: Making Best Use of Existing Runways (June 2018)

- Influencing consumers, to support consumers in making sustainable aviation choices
 - Addressing non-CO₂ emissions that affect climate change and local air quality.
- 5.10 Paragraph 2.27 of the strategy states that the Government will continue to support sustainable airport growth where it is justified. Paragraph 3.62 sets out that applicants should provide sufficient detail regarding the likely environmental and other effects of airport development to enable communities and planning decision-makers to give these impacts proper consideration.

Decarbonising Transport

- 5.11 The [Decarbonising Transport](#) plan sets out the government's commitments and the actions needed to decarbonise the UK transport system. It sets out the pathway to net zero transport in the UK, the wider benefits that net zero transport can deliver, and includes the principles that underpin the approach to delivering net zero transport.

National Planning Policy Framework and National Planning Policy Guidance

- 5.12 The overall strategic aims of the [National Planning Policy Framework](#) (December 2023), herein NPPF, and the various NPSs are consistent, however, they have differing but equally important roles to play.
- 5.13 The NPPF provides a policy framework used by local authorities to prepare local plans to bring forward developments. The NPPF is also a material consideration in the determination of planning applications. The NPPF is also likely to be an important and relevant consideration in decisions on NSIPs, but only to the extent relevant to that project.

Statutory Development Plans

- 5.14 The following key planning documents have policies relating to the Gatwick Airport site from a local perspective. Where appropriate they have been referred to throughout this report.

Adopted Crawley Borough Local Plan 2015 - 2030 (December 2015)

- 5.15 The current development plan for Crawley Borough is the [Crawley Borough Local Plan \(CBLP\)](#) and its accompanying [Crawley Local Plan Map](#), adopted in December 2015. The CBCLP sets out the strategic priorities for Crawley Borough and the strategic policies to deliver homes and jobs, the provision of retail, leisure and other commercial development; the provision of infrastructure for transport, telecommunications, water supply, wastewater, flood risk management, and energy; the provision of health, security, community and cultural infrastructure and other local facilities;

climate change mitigation and adaptation; conservation and enhancement of the natural and historic environment, including landscape. It also contains specific planning policies in respect of Gatwick Airport development which is within the borough boundary.

Modifications Crawley Borough Local Plan 2023 - 2040 Main Modifications Consultation Draft, February 2024

- 5.16 The review of the CBLP commenced in 2019 and, after three rounds of Regulation 1 statutory consultation, was submitted for Examination on 31 July 2023. The examination hearing sessions took place in November 2023 and January 2024, and the council received the [Inspectors' Post Hearing Letter](#) on 31 January 2024 which finds that many components of the Plan may be considered sound, with relatively few modifications required for Plan soundness. The [Modifications Crawley Borough Local Plan \(mCBLP\)](#) and [Local Plan Map \(Modifications Consultation version\)](#) has now been published for Modifications consultation, from 12 February to 25 March 2024. Once adopted it will replace the CBLP as the Development Plan for the borough. Where policies, or major elements of policies, are not subject to Main Modifications, these may now be afforded substantial strong weight.
- 5.17 The vision for Crawley borough as set out in the mCBLP plan includes providing High Quality Leisure and Cultural Facilities and Supporting Health and Wellbeing Services; creating Stronger Communities through developing Diversity and Community; improving Job Opportunities and Developing the Local Economy; delivering Housing to meet Local Needs and Affordable Homes for Crawley and Reducing Homelessness; protecting the Environment and promoting sustainability. As with the adopted Local Plan, it sets out a suite of policies and the Topic chapters of this document set out the relevant mCBLP policies applying to the topic, with those elements of policies still subject to Main Modifications consultation and scrutiny identified. Where policy extracts are included, Modifications are shown in bold. Within the tables in the Topic chapters, modified policies are shown with an asterix.
- 5.18 One specific policy is highlighted here, Strategic Policy GAT1 (Development of the Airport with a Single Runway). The policy supports the development of facilities which contribute to the sustainable growth of Gatwick Airport as a single runway, two terminal airport, subject to specific criteria. The policy has been prepared (and examined) recognising the ongoing DCO process, and specifically outlines that: *"Where development to enable sustainable growth at Gatwick Airport will be a Nationally Significant Infrastructure Project, such as the operational use of the northern runway, i-v above will be taken into account by the council in responding to a DCO, and will be expected to be met by the airport operator and secured through appropriate requirements or S106 obligations."*

- 5.19 Paragraph 15 of the Inspectors' Post Hearing Letter discusses mCBLP Strategic Policy GAT1, outlining that "*We consider Policy GAT1 provides an effective framework to manage proposals at the airport and so there is no reason to delay the adoption of this Plan.*" Given that there is only one Main Modification, relating specifically to Biodiversity, the policy should be afforded substantial strong weight. For completeness, mCBLP Strategic Policy GAT1 is shown in full below (Main Modification shown in bold and strikethrough).

Strategic Policy GAT1: Development of the Airport with a Single Runway

Within the airport boundary as set out on the Local Plan Map, the council will support the development of facilities which contribute to the sustainable growth of Gatwick Airport as a single runway, two terminal airport provided that:

i. The proposed use is appropriate within the airport boundary and contributes to the safe, secure and efficient operation of the airport;

ii. The adverse impacts of the operation of the airport on the environment and the health and living conditions of the local community, including noise, air quality, flooding, surface access, visual impact, and climate change, are minimised, that where necessary satisfactory safeguards are in place to ensure impacts are appropriately mitigated and, as a last resort, fair compensation is secured;

*iii. Biodiversity net gain is provided and significant harm to biodiversity is avoided. Where this is not possible, suitable safeguards are in place to ensure impacts can be adequately mitigated or, as a last resort, **equivalent or greater value for biodiversity** compensation is secured;*

iv. Adequate supporting infrastructure, particularly for surface access, can be put in place; and

v. Benefits to Crawley's local economy and community are maximised. The control or mitigation of impacts, proportionate compensation, infrastructure and benefits will be secured through appropriate planning conditions and/or S106 obligations.

Where development to enable sustainable growth at Gatwick Airport will be a Nationally Significant Infrastructure Project, such as the operational use of the northern runway, i-v above will be taken into account by the council in responding to a DCO, and will be expected to be met by the airport operator and secured through appropriate requirements or S106 obligations.

Supplementary Planning Guidance

- 5.20 To support the adopted policies in the CBLP, CBC has produced a

number of Supplementary Planning documents providing supplementary information on the implementation of policies within the development plan. Of **particular relevance to the Project are:**

- [Planning and Climate Change SPD](#) (Adopted October 2016) providing guidance on how development should be designed to comply with policies ENV6, ENV7, ENV8, ENV9, IN3, CH3 and ENV3
- [Urban Design SPD](#) (Adopted October 2016) provides guidance on how development should meet the requirements in respect of policies CH2, CH3, CH4, CH8, CH9, and IN4 in respect of design and further specific guidance on heritage assets policies CH12, CH13 and CH15. It also provides guidance on parking standards and public art.
- [Green Infrastructure SPD](#) (Adopted October 2016) providing guidance on addressing green infrastructure planning in respect of the following policies CH2, CH3, CH6, CH9, CH11, CH13, ENV1, ENV2, ENV3 and ENV5.
- [Affordable Housing SPD](#) (Adopted November 2017) providing additional guidance on policy H4.

West Sussex Waste Local Plan (April 2014)

5.21 The current development framework for waste development in West Sussex is the [West Sussex Waste Local Plan \(WLP\)](#) adopted in April 2014. The WLP provides the spatial strategy for waste development in the county and contains policies governing decisions about applications for planning permission.

5.22 **The WLP includes a number of policies related to proposals at Gatwick Airport, including, but not limited to:**

- Policy W12: High Quality Development
- Policy W19: Public Health and Amenity
- Policy W21: Cumulative Impact
- Policy W23: Waste Management within Development

West Sussex Joint Minerals Local Plan (July 2018, Partial Review March 2021)

5.23 The [West Sussex Joint Minerals Local Plan](#) (JMLP) adopted in July 2018, with partial changes adopted in March 2021, is the current development framework for minerals development in West Sussex. The JMLP provides the spatial strategy for minerals development in the county and contains policies governing decisions about applications for planning permission.

5.24 The JMLP is of importance to proposals related to Gatwick Airport, as the airport is underlain by safeguarded minerals. Policy M9 seeks to protect mineral resources from sterilisation.

- 5.25 The JMLP is supported by the West Sussex Minerals and Waste Safeguarding Guidance, that provides information on how safeguarded policies are to be applied, and the evidence that should be provided when considering safeguarding.

Horsham District Planning Framework (2015 – 2031)

- 5.26 The [Horsham District Planning Framework](#) (“HDPF”) was adopted in 2015 and covers Horsham District excluding the South Downs National Park (SDNP). The document sets out the planning strategy for the years until 2031, and a set of themes and objectives, focusing on the delivery of: economic prosperity, a high quality of life, opportunities for all, a valued natural and historic environment, and a green and sustainable place.
- 5.27 The plan includes strategic policies and policies used to determine planning applications. A number of these policies are of relevance to the Project including, but not limited to, those relating to economic development, housing need and delivery (including site allocations), conservation and enhancement of the natural and built environment, climate change and infrastructure, including transport.

Emerging Horsham District Local Plan (“HDLP”) 2023 – 2040 (January 2024)

- 5.28 The review of the HDPF commenced in 2018, with an Issues and Options document published for consultation in 2018 and the Regulation 18 Consultation held in February and March 2020. The draft [Horsham District Local Plan Regulation 19](#) publication period commenced on 19 January 2024 for a six-week period of formal representation, closing on 1 March 2024. Submission of the HDLP is timetabled for June 2024, with adoption planned in mid-2025, in line with the [Local Development Scheme](#). Once adopted this will replace the HDPF as the main planning document for the District. There are a number of policies within the Emerging HDLP which are of relevance to the Project. These relate broadly to climate change, water use, conserving and enhancing the natural environment, quality and design of development, transport and other infrastructure delivery, economic development and housing need and delivery, including site allocations.

Neighbourhood Plans in Horsham District

- 5.29 There are a number of parished areas with made Neighbourhood Plans within Horsham District. Those listed below are those which tend to be most affected by proximity to, and by the operation of Gatwick airport.

Rusper Neighbourhood Plan 2018-2031
Warnham Neighbourhood Plan 2017-2031
Rudgwick Neighbourhood Plan to 2031
Slinfold Neighbourhood Plan 2014-2031

Mid Sussex District Plan 2014 – 2031 (2018)

- 5.30 The [Mid Sussex District Plan \(2014 - 2031\)](#) was adopted in 2018 and covers Mid Sussex District excluding the South Downs National Park in the southern part of the District. The Plan sets out a vision for how Mid Sussex wants to evolve and a strategy for how that will be achieved. It sets out the vision for the District, alongside strategic objectives, which will deliver four priority themes of protecting and enhancing the environment, promoting economic vitality, ensuring cohesive and safe communities and supporting health lifestyles.

Mid Sussex Site Allocation Development Plan Document (2022)

- 5.31 The [Site Allocations DPD](#) was adopted in 2022. It allocates land for housing and employment uses to meet the District Plan (2018) housing and employment land requirements. In addition, the plan contains six development management policies, including policy relating to Air Quality.

Emerging Mid Sussex District Plan 2021 – 2039 (January 2024)

- 5.32 A review of the adopted District Plan (2018) commenced in 2021. A Submission [draft District Plan 2021 – 2039](#) contains the same vision and objectives as the 2018 District Plan but provides an updated strategy for delivering the vision and objectives, along with updated strategic and non-strategic policies. The Draft Plan was published for Regulation 18 consultation in November 2022, and the Submission draft Regulation 19 Plan was published on 12th January 2024. The Plan is expected to be submitted for Examination in Spring 2024.

Neighbourhood Plans in Mid Sussex District

- 5.33 Mid Sussex District (excluding the National Park Area) has 100% coverage by Neighbourhood Plans. The Neighbourhood Plans listed below are those in the most northern part of the District, in areas which are most likely to be impacted by additional passenger movements at Gatwick Airport.

Copthorne Neighbourhood Plan (2021)
Crawley Down Neighbourhood Plan (2016)
East Grinstead Neighbourhood Plan (2016)
Turners Hill Neighbourhood Plan (2016)
West Hoathly and Sharpthorne Neighbourhood Plan
(2015)

Other relevant local policy

West Sussex Transport Plan 2022 – 2036 (2022)

- 5.34 The [West Sussex Transport Plan](#) was adopted in April 2022, and is the County Council's main policy on transport. The Plan contains a

number of thematic and area transport strategies that are intended to deliver the plans objectives and address key challenges by improving, maintaining and managing the transport network.

West Sussex Walking and Cycling Strategy 2016-2026

- 5.35 [The West Sussex Walking and Cycling Strategy \(2016-2026\)](#) contains the County Council's aims and objectives for cycling and walking during the period 2016 – 2026. It provides guidance in support of prioritising cycling and walking infrastructure in new development and contains a list of over 300 potential walking and cycling improvements.

West Sussex Rights of Way Management Plan (2018 – 2028)

- 5.36 [The West Sussex Rights of Way Management Plan \(2018 – 2028\)](#) sets out the County Councils approach to managing the Public Rights of Way network, as required under the Countryside and Rights of Way Act 2000, to produce a Rights of Way Improvement Plan. It outlines opportunities available for considering improvements to the network and sits alongside the walking and cycling strategy.

6 Principle of Development

Airports NPS and National Networks NPS

- 6.1 The application is a single comprehensive and integrated project, but it has a number of different elements. Two elements of the project meet the definitions of a NSIP, namely, the 'airport related development' within section 23(4) and (5) of the PA 2008 and the 'highway related development' within section 22(3) and (4) of the PA 2008.
- 6.2 Since the 'highway related development' involves alterations to the existing M23 Spur, which is currently a 'motorway' (and signed as such), as well as works to Airport Way and its slip roads (which are also parts of the Strategic Road Network (SRN)), it is considered that the applicable size thresholds in section 22(4)(a) and (b) of the PA 2008 of 15 hectares and 12.5 hectares are both relevant to elements of the NRP (notwithstanding that the project proposes the reclassification of the motorway to an A-road if the project is consented and implemented) but, since the Authorities understand that their upper size threshold is met for the motorway works, nothing turns on this point. For the avoidance of doubt, it would be helpful if the Applicant could confirm the measured area of the works that constitute the 'highway related development', since this information does not appear to be presented in the application materials. This Local Impact Report proceeds on the basis that the application includes 'highway related development' for the purposes of section 22 of the Planning Act 2008.
- 6.3 The National Networks NPS (NNNPS) has effect for all national networks NSIPs in England (as stated in paragraph 1.2 of the NNNPS). Because of this, section 104 PA 2008 applies to 'the application' (as set out in section 104(1)).
- 6.4 The Authorities are aware that there may be some circumstances where a single DCO application can fall within the scope of both section 104 and section 105 PA 2008. This was the finding of the High Court in the case of EFW Group Ltd v Secretary of State for Business, Energy & Industrial Strategy [2021] EWHC 2697 (Admin). A copy of the Judgment is provided as Appendix E. However, that was a case where two "separate and discrete proposals" (paragraph 1) and "projects [which] were separate and distinct" (paragraph 6), were combined into a single DCO application because they were "proposed to be developed on adjacent sites" (paragraph 4). That was the factual context in which the High Court (Mr Justice Dove) considered "the question of whether or not section 104 and 105 of the 2008 Act are mutually exclusive, or whether it is appropriate, as the ExA did, to apply those sections differentially where there are

two freestanding and distinct projects within the scope of a single application for a DCO and the NPSs apply to one of those projects but not the other" (at paragraph 47, emphasis added).

- 6.5 In that specific context Dove J found that "section 105 of the 2008 Act should be interpreted as applying to free-standing parts of an application to the extent that "section 104 does not apply in relation to the application"" (at paragraph 59).
- 6.6 However, that is not this case. The application is not for two separate and distinct projects. It is a single integrated project and has no "free-standing parts" (leaving aside the separate question of any 'associated development'). The highway related development and the airport related development are mutually interlinked, with the purpose of the former to address the surface access requirements of the latter, and the latter not being achievable without the former. These two parts of the same project cannot be sensibly seen as "two free-standing and distinct projects" which have been combined into a single DCO application. This is confirmed in the Planning Statement [APP-245] which emphasises that "The Project is not severable" and has an "indivisible nature" (in paras 1.5.18 and 1.5.19).
- 6.7 Thus, the Authorities do not consider that the legal ruling in the EFW Group decision is applicable to this case. On a straight-forward reading of the statutory provisions, the application is to be considered under s.104 PA 2008 and for that reason s.105 PA 2008 is not applicable.
- 6.8 However, this does not mean that the NN NPS is required to be applied to the whole of the development. Section 104(3) PA 2008 requires an application to be determined 'in accordance with any relevant national policy statement' (unless one of the stated exceptions applies) and the phrase 'relevant national policy statement' is defined by section 104(2)(a) to mean 'a national policy statement which has effect in relation to development of a description to which the application relates'. The NN NPS has effect in relation to NSIPs for national networks development. It is therefore possible to apply the NN NPS to those aspects of the development, without distorting the meaning of the NN NPS so as to apply it to matters that it clearly does not address (such as aviation noise or the design of airport buildings). If the NN NPS has nothing to say about a particular topic (whether in terms of needs or impacts), there is nothing that can be applied from it with regard to that particular topic and, necessarily, there is no content of the NN NPS to be 'in accordance with' when that topic is being assessed.
- 6.9 It is also the case that it is not necessary to invoke section 105 PA 2008 in order for the decision maker (and the ExA) to have regard to the Airports NPS as an 'important and relevant' matter. This can be done by reliance on section 104(2)(d) PA 2008.

6.10 Thus, the Authorities consider that the application falls within the scope of s.104 PA 2008 and its provisions should be applied. The NN NPS has effect in relation to application certainly in so far as it comprises the 'highway related development' elements of the proposal and potentially as regards the NRP as a whole given its integral and indivisible nature as a single project. The Airports NPS does not have effect in relation to any parts of the application, but it is an important and relevant matter in so far as the proposal comprises 'airport related development'. Because the NN NPS does not contain any guidance on the assessment of 'airport related development', and that development is a fundamental component of the proposal, the NN NPS does not provide a sufficient guide to determine that the application, taken as a whole, is in accordance with it. In this Local Impact Report, the Authorities do not address whether any of the exceptional circumstances in sections 104(4) to (8) PA 2008 may apply but will return to this issue before the close of the Examination in the light of any progress that may have been made in addressing the concerns of the Authorities as set out in this Local Impact Report.

Need, Capacity and Demand Forecasting

6.12 The Authorities note that aviation policy provides in principle support for airports to make best use of their existing runways, as set out in the 2018 policy document *Beyond the Horizon: making best use of existing runways*⁵ (MBU). As noted above in paragraph 5.8, the Authorities have reserved their position on the applicability of this guidance to the Project pending sight of further information from the Applicant. Whilst policy does not require potential capacity at other airports to be taken into account in determining whether a specific proposal for development at an airport can be approved, the availability of capacity at other airports is relevant to considering the demand for and the level of benefits that could be realised from the Project. The Authorities also note that the MBU as a policy statement (if applicable to the NRP) "does not prejudge the decision of those authorities who will be required to give proper consideration to such applications" (para 1.29). Whilst the determining authority for the Project is the Secretary of State, rather than a local planning authority, it is clear that the Secretary of State's "proper consideration" of the DCO application will not entail any prejudging of its merits or of the ultimate decision merely because the policy in the MBU is supportive of the concept of airports beyond Heathrow making best use of their existing runways. This is consistent with the terms of para 1.27 of the MBU that, where a project within the scope of the MBU is NSIP

⁵ [Department of Transport, *Beyond the Horizon, making best use of existing runways*, June 2018.](#)

development under the PA 2008, it “would be considered on a case by case basis by the Secretary of State.”

- 6.13 The Authorities recognise that having a second runway available for use by departing aircraft at peak times would improve the resilience of the Gatwick operation in terms of minimising and mitigating the substantial levels of delay experienced by aircraft at the high levels of single runway usage experienced pre-pandemic as set out in Section 7.2 of the Needs Case (APP-250). The levels of current congestion are also material to assessing the extent to which the baseline throughput of the Airport can be materially increased above the peaks of demand handled pre-pandemic.
- 6.14 The assessment of the effects of the Project, both positive and negative, rely on the projections of future passenger demand and aircraft movements at Gatwick, which in turn rely on the assessment of the increase in capacity that can be delivered by the Project compared to the baseline capacity. It is important for the Authorities to understand the implications of the Project in order to ensure that appropriate mitigations are in place to address the adverse effects having regard to the extent of benefits that can be realised.
- 6.15 In terms of the Base Case capacity, the Authorities note that airlines are already expressing concern about the resilience of the current runway operation at 55 aircraft movements per hour given the current high levels of delay incurred. This may be a factor in the slower recovery of Gatwick from the effects of the pandemic than other London airports. Ultimately, the extent of delays on airlines’ willingness to base or schedule more aircraft into the Airport, and this has implications for the baseline passenger and aircraft movement forecasts that have informed the baseline assessment of environmental impacts.
- 6.16 The assessment of the impacts of the Project relies on the difference between the baseline capacity and that attainable with the two runways in operation. Whilst it is accepted that the Project may enable Gatwick to handle up to 69 aircraft movements per hour in periods when there is an even demand by arriving and departing aircraft movements, the Authorities are not yet convinced that Gatwick will be able to handle peak demand in the early morning period that is dominated by departing aircraft that are based at the Airport. It is these based aircraft that drive much of the local economic benefit through supporting the basing of air crew. GAL has not yet produced sufficient evidence that such movements could be handled without giving rise to excessive levels of delay such that the airlines would be less willing to base additional aircraft at the Airport. This is a view expressed by the Airport’s largest airline customer, easyJet in its Relevant Representation (RR-1256).
- 6.17 Given the structure of the departure routes, particularly in the

westerly Runway 26 direction, many aircraft will require more than the minimum 1-minute separation between departures. Aircraft will have to be held on the ground – on stand or in the 'Charlie Box' - in order to be sequenced to optimise the use of the two runways. Based on the information provided to date, the Authorities are not convinced that this can be managed without unacceptable delays to the airlines. Furthermore, to the extent that there is congestion in the broader airspace to the north of the Airport, achieving the increase in throughput could require greater use of the WIZAD departure route to the south, with detrimental effects on local communities.

- 6.18 Of particular concern is the level of delay likely to be incurred by based aircraft at the movement rates claimed by GAL in both the Project and Base Cases. In both cases, it seems likely that the attainable throughput may be less than claimed by GAL having regard to the capacity of the runway(s) and when realistic patterns of demand by airlines are taken into account. Whilst it is recognised that air traffic control procedures may evolve and allow more relaxed separations between aircraft following the same departure route, consideration of the capacity deliverable with and without the Project should be judged, in the first instance, based on current procedures as it cannot be guaranteed that higher capacity could be delivered in practice.
- 6.19 If the capacity deliverable by the Project is lower than projected by GAL, this has implications for the level of demand that can be accommodated and the assessment of the effects, both positive and negative, of the proposed development. The Authorities' position is that, based on the evidence so far presented, the level of increase in capacity attainable from the Project has been overstated by GAL and that, as a consequence, levels of usage – the demand forecasts – have been overstated. It is likely that achieving the claimed throughput in peak periods may require different use of the departure routes resulting in potentially greater environmental effects.
- 6.20 Furthermore, the methodology by which the demand forecasts have been derived is not considered robust, even if the underpinning assumptions as to the capacity attainable with two runways in use were correct. The demand forecasts have largely been derived 'bottom up' based on the capacity that is assumed to be available with and without the Project. This relies on a judgemental assessment of the services that the airlines might operate if the capacity were available rather than modelling the level of future demand within the wider catchment area served by the Airport then assessing the share that Gatwick might attain of the overall market demand using top-down econometric modelling. Section 2 of Annex 6 to Appendix 4.3.1 to the ES (APP-075) simply states assumptions as to the additional services in each market that the Airport might be able to attract on the basis that there is "limited

*growth opportunity at other London airports*⁶. The approach adopted is purely aspirational and does not provide sufficient evidence to support the claimed increase in throughput or its composition in terms of routes and the future airline fleet of aircraft or to test the implications of more capacity at the other airports. It is an exercise in demonstrating how the capacity provided by the Project might be used but it does not provide evidence that there is a realistic prospect of it being so used. This applies to both the Base and Project Cases.

- 6.21 Whilst bottom-up forecasts are commonly used for short term planning at airports, typically for up to 5 years, as these are able to reflect known discussions with the airlines, they are too dependent on judgement and assumptions to be reliable over the longer term not least given the short term nature of airlines' plan at the individual route level. Both the Base and Project Case forecasts assume that Gatwick will be able to achieve substantial growth in traffic in off-peak periods. Prima facie, it does not seem plausible to assume the same degree of spreading of the peak would be possible in the Base Case due to the limited scope for new less seasonal services to be accommodated compared to the extent to which growth might enable somewhat less seasonal operations with the Project. In either case, the level of peak spreading assumed would imply that the Airport would become more like Heathrow in its annual profile of demand and this seems less likely given that long haul traffic is still expected to make up a relatively small proportion of the overall demand, with low fare leisure type services continuing to dominate the traffic mix set out in the Forecast Data Book (APP-075).
- 6.22 If GAL's assumptions were correct, it is unclear why in the Base Case, given the constraint in capacity at Heathrow, some additional services have not already been attracted. The extent to which this is linked to current congestion issues is not clear. Consequently, it is not evident what is planned to improve the attractiveness of the Airport is sufficient to justify the assumption that additional flights in each market could be attracted with the existing infrastructure sufficient to deliver a forecast throughput in the Base Case of up to 67 million passengers per annum (MPPA). For this reason, it is considered that the assumption that the Airport can attain 67 mppa, up from 46.6 mppa in 2019, is not realistic and that a Base Case capacity in the range 50-55 mppa is more likely.
- 6.23 Although some top down benchmarking of the demand forecasts has been undertaken by reference to the Department for Transport's national aviation forecasts, it is not entirely clear the extent to which this benchmarking has taken account of the effect of additional capacity at other airports in driving overall levels of demand such that it may overstate the actual demand that would be available to Gatwick. Further clarification has been sought

⁶ ES Appendix 4.3.1 [APP-075] Annex 6, page 12.

regarding this modelling. Hence, due to the use of a bottom up approach to modelling future demand, coupled with uncertainty about the validity of top down modelling, the Authorities are not yet satisfied that the demand forecasts in their present form can be relied on as there are doubts that Gatwick would achieve the forecast growth with the Project over the timescale claimed by GAL even if its assumptions as to future Project capacity are correct. This applies regardless of whether a third runway is constructed at Heathrow or not.

- 6.24 On the basis that the demand projections for the Base Case with the existing runway are likely to have been overstated, possibly even more so than those with the NRP given current levels of airfield congestion and the views of airlines, it seems likely that the differences in the environmental impacts with and without development may have been understated.
- 6.25 In particular, the consequence of this overstatement of demand is that the limit size of the noise contour in the Noise Envelope will have been set too large and so provide no effective control or incentive to reduce noise levels at the Airport given that it is proposed to be set by reference to the initial noise levels, with no reduction until 2038. This is especially so given that it is proposed that the Noise Envelope be set by reference to a slower fleet transition case that has not been updated since the PEIR despite significant orders of new generation aircraft by easyJet and other airlines that would mean that the core case fleet assumptions appear much more realistic.
- 6.26 A consequence of the approach to the demand forecasts is that the wider economic benefits of the proposed development, as set out in the Oxera Report appended to the Needs Case (APP-251) have been overstated due to the failure to adequately distinguish the demand that could be met at Gatwick from the demand which could only be met at Heathrow and the economic value that is specific to operations at Heathrow. There are also concerns that the methodology by which the wider catalytic impacts in the local area has been assessed (Appendix 17.9.2 to the ES [APP-200]) is not robust and little reliance can be placed on this assessment.
- 6.27 Overall, this means that there can be little confidence that the decision maker can rely on the assessment of effects to judge whether the benefits outweigh the harms.

7 Historic Environment

Summary - Archaeology

- 7.1 A programme of archaeological evaluation work has been undertaken by the Applicant prior to the submission of the DCO application. It was focused on areas within the Project that were easily accessible; namely open fields and grassland surrounding the operational airport. No pre-submission field investigation related to the Project (as defined in the DCO submission documents) has been undertaken within the present airport complex itself. Despite this, no subsequent archaeological evaluations or other investigations in the unevaluated areas of the Project have been proposed within the submitted Written Scheme of Investigation (WSI) (APP-106).
- 7.2 At the time of finalising this section of the LIR, all mitigation (and any potential further evaluation and excavation) works are outstanding. It is vital that the impact of the Project on the archaeological resource is assessed and mitigated to appropriate archaeological standards.
- 7.3 For all land impacted by the Project, a programme of archaeological evaluation to determine the location, nature, extent and significance of surviving archaeological remains should be completed, or, alternatively, reasoning and evidence should be provided indicating why areas of the Project do not warrant investigation due to previously defined disturbance.
- 7.4 The currently proposed archaeological mitigation strategy, as detailed in the submitted WSI, should be updated and resubmitted for approval after any further phases of evaluation. This revised strategy should detail excavation areas, post-excavation analysis, reporting, publication, outreach, archive deposition and the defined role of the local authority archaeological advisors. The archaeological work should be secured by a DCO Requirement that results in appropriate archaeological assessment and mitigation.

Summary – Other Heritage Assets

- 7.5 The Authorities are concerned about the impact of the Project on the setting of Charlwood House and Charlwood Park Farmhouse as there is currently insufficient detail provided on the visual impact and therefore inadequate provision in the control documents.

Table 7.1: Summary of Impacts – Historic Environment					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
7.1A	Archaeology - Potential for disturbance and impact on archaeological remains	C	Negative	<p>Change: Further archaeological evaluation and the justification provided for exclusion of areas from further work by the Applicant.</p> <p>Further evaluation, mitigation by excavation, monitoring or preservation in situ of identified archaeological remains. Identification of an outreach programme promoting the history and archaeology of the airport and results of the fieldwork should also be included. These should be secured by an overarching WSI within the DCO.</p> <p>The WSI should include the potential for the provision of site-specific WSIs (SSWSI) for further element of the mitigation to be produced post consent.</p> <p>The WSI should also commit to suitable resourcing for the Council’s archaeological advisors to monitor, assess and approve SSWSI, mitigation measures, post-investigation reports, publication and updates to the West Sussex Historic Environment Record. The WSI should also explain how such a commitment would be secured.</p>	<p>ANPS –Para 5.187</p> <p>NNNPS</p> <p>NPPF - Chapter 16</p> <p>CBLP- Policy CH12</p> <p>mCBLP - Policies GAT1*, HA1 and HA7</p>
7.1B	Impact on setting of Charwood House	C and O	Negative	<p>Change: Retention /supplemental planting of trees along southern boundary of Car Park X. Further design detail.</p>	<p>ANPS – Para 5.193 - 5.195</p>

Table 7.1: Summary of Impacts – Historic Environment					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				Requirement: Further tree survey and agreement of tree retention for the site. Submission and agreement of additional details of design and lighting elements for the car park and associated structures.	NPPF – Section 16 CBLP policy CH12 mCBLP policy HA1
7.1C	Impact on setting of Charwood Park Farmhouse	O	Negative	Change: Further design detail for lighting at North Terminal Long Stay Decked Car Park Requirement: Submission and agreement of additional details of lighting elements for the decked car park.	ANPS – Para 5.193 - 5.195 NPPF – Section 16 CBLP policy CH12 mCBLP policy HA1

Policy Context

Airports National Policy Statement (ANPS)

- 7.6 The Historic Environment is addressed within Section 5, between paragraphs 5.187-212.
- 7.7 Paragraph 5.193 states that the applicant's ES should "provide a description of the significance of the heritage assets affected by the proposed development, and the contribution of their setting to that significance. The level of detail should be proportionate to the asset's importance, and no more than is sufficient to understand the potential impact of the proposal on the significance of the asset". "Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation. The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage asset affected can be adequately understood from the application and supporting documents".
- 7.8 Paragraph 1.194 states that "Detailed studies will be required on those heritage assets affected by noise, light and indirect impacts based on the guidance provided in The Setting of Heritage Assets and the Aviation Noise Metric. Where proposed development will affect the setting of a heritage asset, accurate representative visualisations may be necessary to assess the impact." Paragraph 5.195 continues by encouraging applicants to enhance the historic environment wherever possible.

National Networks National Policy Statement (NNNPS)

- 7.9 In respect of the Project and proposed road infrastructure, this document is relevant in respect of archaeology, Section 5, paragraphs 5.120-142.
- 7.10 Paragraph 5.142 states "Where there is a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the Secretary of State should consider requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction."

Other National Policy

National Planning Policy Framework (NPPF)

- 7.11 The Historic Environment is addressed within Section 16: Conserving and enhancing the historic environment. Paragraphs 200 to 204 define the requirements that local planning authorities should be undertaking to ensure that heritage assets are appropriately considered within the planning process while

paragraphs 205-214 address the consideration of potential impacts.

7.12 The main paragraphs are 200 and 201 which states:

"200. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

201. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal."

Local Plan Policy

Crawley Borough Local Plan 2015-2030 (CBLP)

7.13 Policy CH12 'Heritage Assets' states that "all development should ensure that Crawley's designated and non-designated heritage assets are treated as a finite resource, and that their key features or significance are not lost as a result of development", and also that if a heritage asset is to be lost, in whole or in part, that any recording of the heritage asset has to be undertaken in accordance with an approved Written Scheme of Investigation. Where development affects the setting of a heritage asset a Heritage Impact Assessment describing the significance of the asset/s affected and measures to be adopted to ensure it is protected, preserved or enhanced should be explained.

Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

7.14 Policy GAT1 (subject to Modification only regarding biodiversity)

details that the council will support the development of facilities which contribute to the sustainable growth of Gatwick Airport provided that *"the adverse impacts of the operation of the airport on the environment... are minimised, that where necessary satisfactory safeguards are in place to ensure impacts are appropriately mitigated"*. This policy explicitly notes that it will be taken into account by the council where development would constitute a Nationally Significant Infrastructure Project.

- 7.15 Strategic Policy HA1 'Heritage Assets' states that applicants should describe "the significance of any heritage assets affected [by the proposals] and the contribution made by their setting, the impact of the development, and any measures adopted to ensure the heritage asset is respected, preserved or enhanced". Where development affects a heritage asset in its setting a heritage impact assessment will be required. It goes on to say that: "in cases where a heritage asset is considered to be suitable for loss or replacement... proposals will be subject to a requirement to record the asset(s) concerned. The scheme of investigation, including the Historic England Recording Level, is to be agreed with the council in advance of its implementation and will reflect the importance and nature of the asset and the impact of the proposal."
- 7.16 Policy HA7 'Heritage Assets of Archaeological Interest' states: "Any harm to, or loss of, the significance of any designated or non-designated archaeological heritage asset involved in a development proposal will be considered in line with national and local policy, according to the significance of the asset and the degree of loss or harm." It concludes, "the council may require field evaluation and the recording and publication of results. In some cases, the council may require assets to be preserved in situ or excavated."

Applicant's Approach to Assessment

Archaeology

- 7.17 The Project has the potential to negatively impact archaeological remains. The potential negative impacts described below relate to the entire Project.
- 7.18 The majority of impacts on archaeological assets during the construction phase will be as a result of loss through disturbance from groundworks associated with the Project. As established by the submitted Environmental Statement (Chapter 5.1: Historic Environment (APP-032) "Construction activities have the potential to impact directly on buried archaeological remains. Such impacts could occur during site clearance, groundworks or other construction activities that require ground disturbance." Archaeological evaluation undertaken so far in relation to the Project has identified surviving multi-period archaeological remains across areas within the DCO Limits in easily assessable areas. Further evaluation work has the potential to identify additional

remains.

- 7.19 The submitted Environmental Statement discusses the effects on archaeological remains on an individual, site-by-site basis, detailing the effects of each aspect of the Project separately Section 7.12-7.13 (APP-032). However, large areas of the airport have either not been appropriately assessed or insufficient information has been provided as to previous disturbance.
- 7.20 The identified effects vary from negligible to major adverse; however, many of the areas identified as having lower than major adverse effects have not been the subject of archaeological evaluation by the Applicant, or is there evidence in the ES indicating why significant archaeological remains are unlikely to be present or would have been previously disturbed/destroyed. This makes several conclusions of the Environmental Statement, regarding the effect on the archaeological resource, difficult to support by the Authorities. Those areas that have been evaluated and identified as being of potentially major adverse impact are all being mitigated by a programme of archaeological investigation.

Other Heritage Assets

- 7.21 In respect of listed and locally listed buildings, the ES report (APP-032) has identified all those West Sussex Assets in the study area. The baseline environment described in section 7.6 (APP-101) is generally accepted as are the descriptions in the heritage assets baseline. While the Project's visual impact on heritage assets has been addressed by the Applicant with reference to the ES chapter 8 (APP-033), the Authorities consider the visual impact from lighting has not been adequately assessed in relation to the setting of nearby listed buildings.

Construction Phase Impacts - Archaeology

Positive

- 7.22 No positive impacts have been identified during the construction phase.

Neutral

- 7.23 No neutral impacts have been identified during the construction phase.

Negative

- 7.24 The Project has the potential to negatively impact archaeological remains and given the concerns with the Applicant's approach to assessment, the Authorities have highlighted the following specific sites of concern outlined in the table below.

Table 1.2: Specific sites of concern in relation to archaeology

Location	Proposed work	Works Number
Car Park Y	Is to be utilised as a construction compound, have water storage tanks added below-ground to a depth of up to 8-10m, and will have a multi-storey car-park constructed above.	30
Central Airfield Recycling Enclosure	A facility located to the north-west of pier 7 will have elements up to 5m below ground-level.	9
Motor Transport Facilities	Will contain elements up to 5m below ground-level. This site has been partially evaluated and subsequently mitigated by previous archaeological work, only the element outside of that work needs further investigation.	10
Car Park H	Hotel, Office and Multi-storey car-park	28
Car rental facility at South Terminal	Hotel	27
Between the proposed water treatment works and southern terminal	Water pipeline that passes through an Archaeological Notification Area (ANA) indicating Roman occupation and adjacent to a previous archaeological excavation area that uncovered prehistoric settlement evidence.	Associated with 43, detailed on Figure 5.2.1e of Project Description Figures (5.2)
Within the airport apron	Multiple new runways, taxiways and end arounds through grass, including most prominently the 12m extension to the northern runway and the repositioning of Taxiway Juliet to the north	1 & 4
South of runways	Airport Fire Service Facility	15
Within airport apron	Repositioned Fire Training Ground	14
North of Hanger 7	Relocated Infrastructure buildings	17
North Terminal long-stay car park	Decked Parking	32
Western end of runway	Proposed perimeter boundary treatments, most notably the removal and reestablishment of the proposed bund and wall	18
Larkins Road	Road is to be realigned	20
Various	The locations of various construction compounds	No works numbers, but shown on Figure 5.2.1f of Project Description Figures (5.2)

7.25 The sites detailed in the table above have been identified from the Works Plans (4.5), Project Description Figures (5.2) and Table 7.7.1 in Environmental Statement Chapter 7: Historic Environment (5.1) (APP-032).

- 7.26 The sites above should be the subject of an analysis detailing the impact on archaeological remains as a result of historic airport development and construction. After discussions with the Applicant's heritage specialists, it is hoped that this will be defined within a history of the present airport's development, to be prepared during the Examination.
- 7.27 If the sites are identified as having the potential to contain surviving archaeological remains, then a programme of archaeological investigation (potentially archaeological evaluation followed by excavation) should be proposed in the WSI for approval.
- 7.28 In areas where major adverse significant effects on archaeological remains have already been identified, the Environmental Statement has proposed mitigation through the implementation of a programme of archaeological investigation, post-excavation analysis, reporting, publication and archive deposition, defined in the submitted Written Scheme of Investigation (WSI; 5.3, Appendix 7.8.2). Engagement has been undertaken with the Applicant on comments with regards to the WSI and sections within it that need enhancing. The Authorities have requested a response/revised outline WSI from the Applicant and are happy to discuss within a topic meeting if required.
- 7.29 The specific areas that need enhancing within the WSI are listed below:
- The proposed Geoarchaeological Watching brief in Car Park X (WSI paragraph 6.5) should be prefaced by a programme of archaeological trial-trenching and geoarchaeological test-pitting of the site. This would provide a more controlled method of understanding the archaeological and geoarchaeological potential of this area and would additionally prevent the potential for holdups in the construction programme.
 - The proposed excavation areas within Museum Field (Area B) fail to include the areas around trenches T123, T130, T151, T159 and T160 (WSI paragraph 6.2, Figure 7). These trenches contained postholes and linears and it is proposed that the area of investigation is expanded to include these areas.
 - T176 in Brook Farm (Area H) contains a prehistoric ditch; the area around this trench should be included within the proposed excavation area (WSI paragraph 6.3, Figure 7).
 - The historic building recording of the air traffic control tower should be carried out to Historic England Level 3 rather than the currently proposed Level 2; given its rarity as a structure and the proposed demolition.
- 7.30 An appropriate WSI is an important mitigation measure for archaeological impacts on any scheme and that both an overarching high level WSI is produced for the DCO process with site-specific WSI's produced for each site investigated, this needs to be secured through DCO Requirement 14, and wording updated to reflect this

approach.

Operational Phase Impacts - Archaeology

Positive

- 7.31 No positive impacts have been identified during the Operational phase.

Neutral

- 7.32 The Environmental Statement identifies no further impacts on archaeological features or remains during the operational period of the Project. The Authorities agree with that assessment, unless archaeological remains requiring preservation in situ are identified, as there would need to be measures in place to ensure their preservation.

Negative

- 7.33 No negative impacts have been identified during the Operational phase.

Construction Phase Impacts – Other Heritage Assets

Positive

- 7.34 No positive impacts have been identified during the construction phase.

Neutral

- 7.35 No neutral impacts are identified during the construction phase,

Negative

Charlwood House (Site 23), Charlwood Road

- 7.36 This Grade II* listed building is located south of Charlwood Road, and Work No 31 (Car Park X) is located on land immediately to the north. There are no controls over the retention of intervening landscape screening along the southern boundary of Car Park X relied upon to preserve the setting of the listed building. The preservation of the building setting cannot rely just on tree screening to the south side of Charlwood Road, as listing describes a moat which extends to the east and north of the property which can be viewed from the road side and forms part of the setting and curtilage of the property which extends up the edge of Charlwood Road and as far east as the junction with Poles Lane. The setting is therefore influenced by the landscaping around the building and the trees along both sides of Charlwood Road.

- 7.37 The decked car park 11m tall (including the lighting columns on the

upper deck) would be approximately 30 m east of the junction with Poles Lane, this nearest point appears to be where an existing access would be reopened and widened making any structures behind much more visible.

- 7.38 Due to lack of survey information (such as tree positions, condition and height information) and lack of clarity on the parameter plans it is unclear how much screening would be retained, so while viewpoint 26 (ES Ch 8 Figure 8.9.104 (APP- 033)) shows a tree belt along this road, the Authorities are not satisfied that is an accurate visual representation of the development impact at this particular location.

Operational Phase Impacts – Other Heritage Assets

Negative

Charlwood House (Site 23) Charlwood Road

- 7.39 The Operational Lighting Framework (APP-077) provides little specific detail on how nearby heritage assets would be protected from lightspill and does not identify these receptors in the document. There is also no specific detail in the design control document Appendix 1 in Volume 5 of the DAS (APP-257). This listed building has a countryside setting and while there is some impact from Car Park X, this is largely mitigated by the tree screen, keeping the surrounding area relatively dark. The decked car park would introduce a potentially open sided lit structure up to 11m high to the north of this property which, if not appropriately mitigated is considered visually harmful.

Charlwood Park Farmhouse (Site 27)

- 7.40 This Grade II* listed building is located just west of the DCO Limits and is bounded to its east by the landscaped River Mole corridor. Further to the east beyond the river is the proposed site for the 11m high North Terminal Long Stay Decked Car Park (Work No 32) with its parameter plans showing the development area up to the edge of the tree line.
- 7.41 The Authorities are concerned about the potential visual impact of any lighting and light spill from the decked car park on the setting of this heritage asset. In the absence of any survey drawings or sections, the overall height of the car park in respect of this listed building and effectiveness of the intervening landscaping is unclear (the parameter plans do not show the relative levels beyond the DCO Limits). Further information is requested to understand the relationship between the listed building and the car park in particular any light spill from the upper deck.

Required Mitigation

Archaeology

- 7.42 For the overarching WSI to appropriately mitigate the impact of the Project, recommendations have been made to enhance the present document to ensure suitable recording, evaluation, mitigation and outreach is undertaken.
- 7.43 There needs to be a commitment to produce separate site specific WSIs for each element of the proposed archaeological assessment/mitigation.
- 7.44 Specific archaeological mitigation or clarification on previous disturbance is required for:

Table 7.3: Archaeological mitigation required for key areas

Location	Proposed work	Mitigation
Car Park Y	Is to be utilised as a construction compound, have water storage tanks added below-ground to a depth of up to 8-10m, and will have a multi-storey car-park constructed above.	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Central Airfield Recycling Enclosure	A facility located to the north-west of pier 7 will have elements up to 5m below ground-level.	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Motor Transport Facilities	Will contain elements up to 5m below ground-level. This site has been partially evaluated and subsequently mitigated by previous archaeological work, only the element outside of that work needs further investigation.	Appropriate strip map and sample in advance of construction or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Car Park H	Hotel, Office and Multi-storey car-park	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Car rental facility at South Terminal	Hotel	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Between the proposed water treatment works	Water pipeline that passes through an Archaeological Notification Area (ANA) indicating Roman occupation	Appropriate strip map and sample excavation post consent or evidence showing the level of previous disturbance which

and southern terminal	and adjacent to a previous archaeological excavation area that uncovered prehistoric settlement evidence.	would have impacted any surviving remains.
Within the airport apron	Multiple new runways, taxiways and end arounds through grass, including most prominently the 12m extension to the northern runway and the repositioning of Taxiway Juliet to the north	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
South of runways	Airport Fire Service Facility	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Within airport apron	Repositioned Fire Training Ground	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
North of Hanger 7	Relocated Infrastructure buildings	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
North Terminal long-stay car park	Decked Parking	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Western end of runway	Proposed perimeter boundary treatments, most notably the removal and reestablishment of the proposed bund and wall	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Larkins Road	Road is to be realigned	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.
Various	The locations of various construction compounds	Appropriate evaluation or evidence showing the level of previous disturbance which would have impacted any surviving remains.

Other heritage assets

- 7.45 For Charlwood House (Site 23) adequate mitigation would include the retention of a robust tree screen (with supplemental planting where possible) along the southern side of Car Park X and controls over the design and appearance of the car park (decked and surface) including details to minimise light spill from the site are needed.

- 7.46 For Charlwood Park Farmhouse (Site 27) further information is required to understand the physical separation including site levels and other landscaping between the proposed North Terminal decked car park and the listed building and further detail on the lighting details for the structure to understand the level of light spill.

Requirements and obligations

- 7.47 Within the documentation (the Environmental Statement, the Code of Construction Practice and the West Sussex WSI) there is no clarity on the monitoring of the archaeological mitigation by the relevant Authorities (CBC and WSCC) apart from section 7.1.5 of the WSI. The role of the local authority archaeological advisors (LAAA) needs to be integrated into all of the above documents in a consistent manner. This needs to clarify that the LAAA will be responsible for the sign off of the final WSI's, fieldwork mitigation, post excavation and publication work.
- 7.48 The Applicant should also agree to a suitable provision for resourcing the archaeological monitoring by the Authorities of the fieldwork, post-investigation reports, publication and updates to the West Sussex Historic Environment Record.
- 7.49 For Charlwood House, the Applicant should agree detailed tree survey and retention plans for Car Park X and provide further details on the site design and layout, including an indication of the deck design and lighting detail principles to be employed so as a minimum, key design principles can be incorporated into any control documents to safeguard the setting of the heritage asset.
- 7.50 For Charlwood Park Farmhouse, the Applicant should provide further site-specific information to demonstrate that there would be no negative impact from light spill to this heritage asset, such details specified or secured via a control document or on the parameter plans.

8 Landscape, Townscape and Visual Resources

Summary

- 8.1 Gatwick Airport is already a large and established feature within the landscape and immediate surroundings, its existing infrastructure having greatly impacted on the area including the form and layout of associated roads and infrastructure. Furthermore, the current level of air traffic movements in the vicinity of the airfield is such that there is no perception of tranquility for countryside areas within Crawley Borough immediately surrounding the DCO Limits or extending further to south. For those using the countryside or resident in these areas, along with occupiers in the industrial areas such as Manor Royal further to the south and some northern residential neighbourhood's within Crawley, their day-to-day experience is also impacted by the visual presence of the airport from aircraft takeoffs / arrivals and lighting / skyglow (during hours of darkness).
- 8.2 Given this baseline, the Authorities consider that a key objective for the Project to achieve from a landscape/townscape perspective, is to limit the visual impact as far as possible within the existing site boundary and, where additional countryside is needed, to ensure the works minimise and appropriately mitigate the visual impact upon these rural areas. These principles should apply to both the construction and operational phases of the Project, as given the extent and extended duration of construction works, visual impacts from areas of continuous construction presence, such as the construction compounds would affect communities for up to 14 years.
- 8.3 The Authorities also wish the Applicant to take opportunities to enhance the landscape screening of the airfield boundaries to reduce light spill and views of the airfield into surrounding areas and provide a stronger boundary to the sensitive uses in particular where these interface with the countryside.
- 8.4 In general, the analysis of the visual assessments in the ES (APP-033) are broadly accepted, however, there are specific works sites where potentially negative visual impacts have been identified by the Authorities and the controls/mitigation are not clear from the information provided (either within the ES chapter or related control documents).
- 8.5 There are also concerns with the control documents as worded and with the level of detail on the suggested approved plans which are currently insufficient for the Authorities to ensure appropriate control over the landscape and visual impacts particularly in sensitive site locations. Measures to secure mitigation are not considered adequately detailed or secured through the wording of the DCO requirements or in the current control documents. The

lack of information on tree retention given the importance of tree screening to mitigate visual impacts is a major concern to the Authorities.

Mid Sussex District Council & Horsham District Council

- 8.6 The setting of the airport does impact the wider landscape, both urban and rural. In their day-to-day operations, aircraft movements also impact the wider rural landscape, both visually and through noise pollution.
- 8.7 The High Weald Area of Outstanding Natural Beauty (AONB) is the 4th largest AONB in Britain and is one of the best surviving medieval landscapes in north-west Europe. The AONB runs from Kent in the east, into East Sussex and onto West Sussex. In Mid Sussex, the AONB lies approximately 3km from the closest point of the DCO Limits. About 1% of Crawley Borough, 7% of Horsham District and 50% of Mid Sussex District are within the AONB.
- 8.8 The additional capacity that the Project will bring, will potentially lead to increased flights over the AONB, causing further visual and noise intrusion, which will impact its level of tranquility. In addition, additional traffic movements through the AONB will impact the quiet enjoyment of the AONB.

Table 8.1: Summary of Impacts – Landscape, Townscape and Visual Resources					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
8.1A	Visual impact of construction compounds	C	Negative	Change : Change: ZTVs for these areas to inform mitigation. Details on tree loss, design and layout of this area including lighting and stockpiles. CoCP (Annex 3). Requirement: Details on layout and appearance of each compounds to be agreed with relevant Authorities.	CBLP Policy CH9 requires the rural fringe to be protected and safeguarded from proposals which result in noise and visual intrusion, while policy GAT1 seeks to ensure satisfactory safeguards to mitigate visual impacts. mCBLP – Policies CL8, GAT1 and EP6
8.1B	Lack of control over landform / visual appearance of Pentagon Field	C	Negative	Change: OLEMP / Addition to CoCP Annex 3- additional details required on visual impact and management of the works on site and in relation to nearby footpaths and ancient woodland. Further information needed on site levels and parameter plan: Requirement: additional details needed in control documents	CBLP CH9 policy requires the rural fringe to be protected and safeguarded from proposals which result in noise and visual intrusion, while policy GAT1 seeks to ensure satisfactory safeguards to

Table 8.1: Summary of Impacts – Landscape, Townscape and Visual Resources					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					mitigate visual impacts. CH6 – tree replacements, CH11 seeks to safeguard PRoW mCBLP policies CH8. OSC3, GAT1, DD4
8.1C	Increased visual impact from tree loss (car parks)	O (and C)	Negative	Change: OLEMP, Parameter Plans, DAS. Provide tree survey plans and tree protection plans to give clarity the level of landscaping is to be retained for Purple Parking, Car Park X, North Terminal Long Stay Decked Car Park. Consider opportunities for the reinforcement of screening of mitigation Requirement: Tree retention measures for sites agreed. Tree mitigation in accordance with policy CH6.	CBLP policy CH6 sets out the adopted tree replacement standards, policy CH9 requires the rural fringe to be protected and safeguarded from proposals which result in noise and visual intrusion. Policies GAT and CH3 mCBLP DD4, CL8, GAT1*, DD1, EP6
8.1D	Increased visual impact from highway works	C and O	Negative	Further information provided on visual impact of this infrastructure given the extensive tree loss identified through the OLEMP.	CBLP policy CH9 requires rural areas to be protected from noise and

Table 8.1: Summary of Impacts – Landscape, Townscape and Visual Resources					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				Requirement: Further detail required in OLEMP to enable identification of suitable environmental mitigation taking into account policy CH6 in respect of tree replacement. See also table impact highlighted table 9.1.AF.	visual intrusion and CL6 sets out the tree mitigation and replacement standards, CH3 sets out normal requirements for all development. mCBLP policies CL8, GAT1*, EP6, DD4
8.1E	Visual impact of the CARE facility and larger scale buildings	O	Negative	Change – Further information is required through securing more robust design principles through the DAS. Requirement – Detailed design principles need to be agreed for these key buildings through control documents such as the DAS. See also table 24.1A and 24.1B for further detail.	CBLP policy CH8 seeks to protect longer distance views, while CH9 requires rural areas to be protected from noise and visual intrusion, policy CH3 requires high quality development sympathetic to its surroundings. mCBLP policies CL7, CL8, DD1, GAT1* and EP6

Table 8.1: Summary of Impacts – Landscape, Townscape and Visual Resources					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
8.1F	Noise from increased overflight across AONB, loss of tranquillity	O	Negative	Maintain the use of WIZAD as tactical offload route only.	NPPF Paragraph 182 Mid Sussex Local Plan (2018) DP16: High Weald AONB High Weald AONB Management Plan (2019)

Policy Context

National Policy Statements

Airports National Policy Statement (ANPS)

- 8.9 In respect of the airfield infrastructure, the landscape and visual impact guidance in paragraphs 5.213 – 2.225 is of relevance. The guidance explains in paragraph 5.213 that "*For airport development, landscape and visual effects also include tranquillity effects, which would affect people's enjoyment of the natural environment and recreational facilities*".
- 8.10 The document highlights in paragraph 5.217 that in respect of mitigation "*adverse landscape and visual effects may be minimised through appropriate design (including a choice of materials) and landscaping schemes.*"
- 8.11 In terms of decision making and landscape impact it paragraph 5.222 states that "*The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside of the boundaries which may have impacts within them*".

National Networks National Policy Statement (NNNPS)

- 8.12 This document is applicable in relation to the design of the national network road infrastructure and paragraphs 5.143 -5.161 set out guidance on landscape and visual impacts.
- 8.13 Para 5.146 states the Applicants assessment should "*include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation.*"
- 8.14 In respect of decision making and landscape impact paragraph.149 states "*Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints, the aim should be to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate*".

Other National Policy

National Planning Policy Framework

- 8.15 Section 12 'Achieving Well Designed and Beautiful Places' emphasises the importance of good design as a key aspect of sustainable development. Paragraph 135 emphasises the need for development to function well and add to overall quality of the area over its lifetime and to ensure they are visually attractive as result of good architecture, layout and appropriate and effective

landscaping and sympathetic to the local landscape setting.

- 8.16 Section 15, Paragraph 180 states that "*Planning policies and decisions should contribute to and enhance the natural and local environment by a) protecting and enhancing valued landscapes, sites of biodiversity or geological value soils (in a manner commensurate with the statutory status or identified quality in the development plan).*" Paragraph 182 goes on to state "*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*".
- 8.17 Paragraph 191 states: "*Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects of pollution on health, living conditions and the natural environment....In doing so they should:.....b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason...*".

Local Plan Policy

Crawley Borough Local Plan 2015-2030 (CBLP)

- 8.18 Policy CH8 'Important Views' identifies key views that should be protected or enhanced. Gatwick is within two identified long-distance views providing a backdrop to Crawley New Town in the foreground. The impacts of any development within these view splay must be clearly and accurately demonstrated as part of any application submission.
- 8.19 Policy CH9 'Development Outside the Built-up Area' sets out the requirements for any development in the countryside within the borough to ensure that the attractive setting of the town is maintained. The countryside to the south of the airport forms part of the Upper Mole Rural Farmlands Fringe while the land to the east of the railway line is within the North East Rural Fringe. Both areas are recognised as providing an important role in maintaining the separation of the distinct identity of Gatwick Airport from the neighbourhoods of Crawley and Horley. Proposals which do not result in noise or visual intrusion are usually supported.
- 8.20 Policy GAT1 'Development of the Airport with a Single Runway' supports development of single runway, two terminal airport provided that "*ii. Satisfactory safeguards are in place to mitigate the impact of the operation of the airport on the environment including....visual impact...*"
- 8.21 Other relevant policies include:

- 19 CH3 'Normal requirements of All New Development' requires amongst other things development to be based on a good understanding of the significance and distinctiveness of the site in its immediate and wider context and be high quality relating sympathetically to its surroundings in terms of matters such as views, landscape, layout and scale.
- 20 CH6 which out CBC's 'Tree Planting and Replacement Standards' and,
- 21 CH10 'High Weald Area of Outstanding Natural Beauty' seeks to conserve and enhance the setting of this landscape
- 22 CH11 'Public Rights of Way' requires that proposals which detract from a right of way or recreation route must adequately mitigate or provide a new resource.

Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

- 8.22 Policy CL7 'Important and Valued Landscape and Views' retains the key viewpoints and requirements relating to Gatwick identified by current adopted policy CH8.
- 8.23 Policy CL8 'Development Outside of the Built-Up Area' refreshes adopted policy CH9 placing an increasing emphasis on the importance of these landscape character areas and placing a stronger emphasis on measures to mitigate and enhance the character of these areas where possible. *"Proposals which alter the character of the area must demonstrate that need for the development outweighs the impact on landscape character and is accordance with national and local policy. Mitigation/ compensation will be sought in such cases where this can be proven".*
- 8.24 Policy OSC3' Rights of Way and Access to the Countryside' requires that proposals which detract from a right of way or recreation route must adequately mitigate or provide a new resource.
- 8.25 Strategic Policy GAT1 'Development of the Airport with a Single Runway' supports sustainable growth provided that *"(ii). The adverse impacts of the operation of the airport on the environment and the health and living conditions of the community, including.....visual impact....are minimised, that where necessary satisfactory safeguards are in place to ensure impacts are appropriately mitigated and, as a last resort, fair compensation is secured."*
- 8.26 Policy EP6 'External Lighting' – requires development to demonstrate how it will minimise light pollution to avoid matters such as glare, unacceptable sky glow and light spillage.
- 8.27 Other key linked policies include:
 - Strategic Policy DD1 'Normal Requirements of All New Development'
 - DD4 'Tree Replacement Standards'

- DD5 'Aerodrome Safeguarding'
- DD6 'Advertisements'
- Policy CH9 'High Weald Area of Outstanding Natural Beauty' which reiterates the aims of adopted policy CH10.

Mid Sussex Local Plan 2014 – 2031 (2018)

- 8.28 Policy DP16: High Weald Area of Outstanding Natural Beauty states that *"Development within the High Weald Area of Outstanding Natural Beauty (AONB), as shown on the Policies Maps, will only be permitted where it conserves or enhances natural beauty and has regard to the High Weald AONB Management Plan"*

Horsham District Local Plan 2015

- 8.29 Policy 30 relates to Protected Landscapes. It states that: *"The natural beauty and public enjoyment of the High Weald AONB and the adjoining South Downs National Park will be conserved and enhanced and opportunities for the understanding and enjoyment of their special qualities will be promoted"* and *"Development proposals will be supported in or close to protected landscapes where it can be demonstrated that there will be no adverse impacts to the natural beauty and public enjoyment of these landscapes as well as any relevant cross boundary linkages."* It also requires development proposals to *"demonstrate how the public enjoyment of these landscapes will be retained"*.

Other Relevant Local Policy

The Crawley Borough Green Infrastructure SPD (GISPD)

- 8.30 This provides further guidance on CBLP policies CH6, CH8, CH9 and CH10 listed of relevance above. Part 6 deals with the countryside (including the landscape character areas) providing more detail on their key characteristics, landscape value and further planning guidance for their maintenance and enhancement.

The High Weald AONB Management Plan (2019)

- 8.31 This has been adopted by all the Authorities. The plan sets out policies for the management of the area and includes objectives for the conservation and enhancement of the AONB. Objective G3 states: *"To help secure climate conditions and rates of change that support continued conservation and enhancement of the High Wealds landscape and habitats"*. Objective OQ4 is *"To protect and promote the perceptual qualities; with the rational; to ensure that the special qualities people value, such as tranquility, dark skies, sense of naturalness and clean air are recognised and taken account of in AONB management."*

Applicant's Approach to Assessment

- 8.32 A concern is the visual impact of the ('up to 48m') stack associated with the CARE facility. Although it is stated in Table 8.3.1 (APP-

033) that a separate Zone of Theoretical Visibility (ZTV) for the flue is provided, no evidence of this is included within the documentation.

- 8.33 Due to the longevity of the construction phase, no ZTVs have been prepared for the larger construction compounds, especially those close to sensitive receptors, or for those compounds with batching plants proposed to be up to 25m in height. Further assessment by the Applicant is required to understand where construction phase visual effects will be felt and how they will be mitigated.
- 8.34 In general, the analysis of the visual assessments in this ES (APP-033) are broadly accepted however, it is considered that some of the visual images are misleading as they suggest a greater level of tree screening being retained than would be the case given information shown on other control documents such as the parameter plans. The level of tree screening shown is potentially not representative of the situation during the construction phases when planting is likely to be removed to facilitate works. It would be many years (given the extended construction period) before some aspects of the works are mitigated to the levels suggested.

Construction Phase – impacts

Positive

- 8.35 There are no positive visual construction phase impacts.

Neutral

- 8.36 There are no neutral visual construction phase impacts.

Negative

Visual impact of construction compounds

- 8.37 With the construction phase for the Project estimated at 14 years, the Authorities are concerned about the scale and visual impact of the construction compounds particularly those located around the perimeter of the airfield. Aside from the absence of the ZTV's for these areas, there is a lack of detail on how such areas would be visually screened given the level of tree loss that may be required to establish them, these details are required along with further information on the design and layout of these areas including details on where taller elements such as concrete batching plants are to be sited and the location and maximum height levels of any stockpiles. The Authorities accept that the visual sensitivity of these locations varies on a site-by-site basis and therefore the Applicant should consider a bespoke site specific approach in providing an appropriate level of detail. It is noted that only limited information is provided in the Code of Construction Practice Annex 3 (APP-085) and while 'indicative information' has been provided in

the DAS, there are no details about these compounds in the Appendix 1- Design Principles Document (APP-257).

Pentagon Field (Works No 41).

- 8.38 Pentagon Field is shown on the submitted Works Plans (AS-017 Sheet 4). The site is bounded by visually and ecologically sensitive uses, including an ancient woodland buffer to the south and adjoining Public Rights of Way (the pavement of Balcombe Road on the east and footpath 359Sy to the north and west). The land is to be used by the Applicant for the deposition of soil, however no parameter plan has been provided. The site during construction could be viewed as a contractors' compound for the storage and deposition of spoil, yet this is not referred to in the CoCP (Annex 3). An illustrative concept plan is provided in the OLEMP Figure 1.2.18 (APP-114) describing a 4m high spoil platform covering a large proportion of this area (note that 4.4m is referred to in the ES para 8.9.14 – APP-033) above existing ground level. With no survey or existing ground levels provided it is impossible to establish where this measurement would be taken from nor the accuracy of the visuals provided.
- 8.39 While the Authorities object to the use of this land for any spoil deposition, there is concern about the extent of land raising and the proximity of this earth feature to sensitive visual receptors such as the nearby Public Rights of Way. There are no cross sections or profiles to understand the visual impact on this landform and the extent and profile of the spoil area should be explained in more detail with areas and boundary protection measures defined to ensure no damage to existing landscape. Furthermore, there is no information on the strategy for creating the landform, how spoil would be transported to the site and how the area would be secured and controlled for the duration of the works including what equipment and materials could be used on the site. The final purpose of this landform is also unclear. The suggested final use is grazing land although it is noted that there is still reference in the ES to a decked car park (para 220 – APP-033).
- 8.40 The ES suggests tree planting in a tree belt along Balcombe Road in winter 2025 yet the success of this new planting must be impacted by land tipping and dust occurring on the wider site. There are concerns about how long the site could be used for soil deposition given there is no purpose to the landform being formed so no end date if the works elsewhere on are delayed. It would appear the Applicant is relying heavily on planting to mitigate this large unnatural landform in the medium to long term.

Operational phase - impacts

Positive

- 8.41 There are no positive visual impacts from the Project. It is

disappointing that the Applicant has not identified through its DAS or the OLEMP any opportunities it could take to further mitigate the visual impact of the current airport infrastructure as part of any wider landscape strategy or as an integral part of the any new infrastructure requirements necessitated through the Project.

Neutral

8.42 There are no neutral visual impacts during the operational phase.

Negative

Increased visual impact from tree loss (car parks)

8.43 The Authorities are concerned about the accuracy of the wireline drawings for some viewpoints and the level of tree loss proposed. While tree screening may have been assumed retained in the example views where provided for some of the works, the information in other documents such as the Parameter and Works Plans and in control documents such as the DAS and OLEMP provide no such safeguards potentially creating a false impression of the visual impacts. For other sites there is no visual information but the Authorities are concerned about the extent of loss of visual tree screening. The visual impact from lighting and spillage from these structures (particularly the top deck) is also of concern. The works areas of concern include:

- Purple parking (Works No 33 - no parameter plan) – The current tree screening along highway boundary is important in aiding the concealment of this car park and wider airfield from views to the south from Lowfield Heath Road/ Bonnetts Lane. The current Works Plan (AS-017) is of insufficient detail to exclude the trees from the development area and the OLEMP is unclear in the key plan or in writing about the future of the screening. There is no information about the design approach in the DAS, the tree belt is excluded from any illustrations.
- Car Park X (Works No 31 with parameter plan) – Tree screening along highway boundary. There is an important tree belt running parallel with the northern side of Charlwood Road which screens views of this extensive car park from views along the road and south from wider views from the countryside. This screening is key providing a softer landscaped edge between the airport and the countryside and reducing light spill into the countryside further to the south. The current works plan (AS-017) appears to include most of the tree belt within the development area and the parameter plan (APP-019) shows an 11m high structure potentially covering the eastern half of the current surface car park. The illustrative position and size of the deck parking area varies between plans and the illustrative position of the flood storage area would appear to result in the removal of other tree groups

which add to visual screening of the site and airfield beyond. There is no indication in any of the control documents that any of these important trees will be retained although viewpoint 26 in ES Figure 8.9.104 (APP-062) assumes the mature tree belt will be retained. The proposed widening of the currently closed car park entrance onto Charlwood Road would erode the tree belt and be detrimental to visual character, there is no explanation why this must be done given the current car park is accessed via Perimeter Road South.

- North Terminal Long Stay Decked Car Park (Works No 32 with parameter plan) – tree screening along River Mole. With no details on the site levels, the visuals (Viewpoint 5 / Figure 8.9.19 – APP-061) suggest that the trees in the background which would be closer to the car park are located on higher ground. If these specimens are lost or thinned this would open up the land to much wider views of the airport as the trees nearer the river are at a much lower level and therefore have less impact as a visual screen. The parameter plan and works plan seem to extend to the boundaries of the existing surface car park site however, if constructed to maximum set out on these plans would result in a structure the proximity of which would impinge upon tree screen the northern boundary potentially damaging and eroding it.
- Car Park Y (Works No 30 with parameter plan) – Tree screening along the highway boundary. Based on the OLEMP all screening is being removed leaving not just Car Park Y but other existing buildings including the adjoining Premier Inn visible from (Viewpoint 22b 8.9.85 – APP-062). The Authorities consider this excessive removal of tree cover is not justified and is harmful to the visual amenities of the area.

The visual impact of other Project Infrastructure

- 8.44 The Authorities also raise concerns about wider visual impact of other infrastructure within the DCO Limits from surrounding views both on and off airfield. Further information is provided on design aspects in Section 23 of the LIR.

Care Facility

- 8.45 One of the key elements of the Project is the construction of a CARE waste facility that will replace the existing waste facility. The submission documents for the proposed CARE site (Works No.9) lack detailed information. The Project Description (APP-030) sets out broad information of what is proposed (encompassing a building up to 22m in height, and a single stack of up to 48m, biomass boilers, and a Materials Recovery Facility). This could be considered EIA development in its own right and understanding the need for, and impact of, this element of the Project is imperative.

Highway works (Construction and Operational Phases)

- 8.46 The Authorities are concerned regarding the visual impacts of the highway works proposed as part of the Project. As a result of the increased intensification of the road corridor, there will not only be more highways infrastructure present (including some at height), but also a significant loss of existing vegetation along the route, which has been identified in the OLEMP. This would be a detrimental impact on the landscape in the vicinity, affecting local residents, users of the Public Rights of Way and those travelling through the area in the long term. This urbanising effect will be felt for years to come, until any proposed mitigation has had time to mature.

Other large-scale buildings and longer distance views

- 8.47 The Project includes the construction of a number of new large, tall buildings including Works 16 -a new hangar (up to 32 m high / footprint 12,440 sq m), Works 28 – new hotel and office (up to 27m high 4,580 sq m office space / 400 bedrooms), Works 26 – hotel (up to 27 m high and 400 bedrooms), Works 27 – hotel (Up to 16.3m high and 200 bedrooms) along with alterations to the existing North and South Terminal buildings some elements of which also involve development to height of 27 m high (Works 23(a)). All these elements would be considered 'major' scale applications in their own right and like the CARE building referenced above, only limited detail has been provided in the Project Description (APP-030) supplemented by only 'indicative' information. This limited information on design and appearance, for example materials (for walls and roofs), roof infrastructure (pv panels) and external lighting result in uncertainties for the Authorities about the impact of these buildings on the wider surroundings. Further detail on this point can be found in Section 23 of the LIR.

Mid Sussex District Council & Horsham District Council

- 8.48 The High Weald AONB is a protected landscape and has the highest level of protection. It is acknowledged that the AONB is already overflowed by aircraft arriving and departing Gatwick and other airports including Heathrow. As the Project will increase the operational capacity of the airport and therefore the number of flights will increase, there is the potential for harmful impact on the tranquility of the AONB.
- 8.49 ES Chapter 8 section 8.9 (APP-109) does include an assessment of the effects on the perception of tranquility within the High Weald AONB. It draws the conclusion that the magnitude of change is generally considered to be negligible and the level of effect up to Minor adverse. It is the view of both Mid Sussex and Horsham District Councils that assessment of tranquility has underplayed the magnitude of change arising from increase in overflights in

nationally designated landscapes. The High Weald AONB Management Plan states that its tranquility is a valued characteristic, therefore additional noise disturbance is likely to be harmful.

- 8.50 ES Chapter 8 Table 2.2.7 (APP-109) indicates a 15 – 20% increase in overflight will have a negligible impact will have a negligible magnitude of change in perception of tranquility, with a negligible to minor adverse effect.
- 8.51 Figure 8.6.7 (APP – 061) shows that in 2032, with the Project, parts of the western section of the AONB will move from 11 – 51 daily overflights to 50 – 100 daily overflights. (Noting that there is no figure showing with Gatwick only overflight included in the documentation). This indicates that there could be a significant increase in the number of overflights over parts of the AONB. It is also a greater % increase than indicated in table 2.2.7 (APP-109). The increased frequency of overflight, over areas which are tranquil in nature, will be very noticeable, and harmful to the special characteristics of the protected landscape.
- 8.52 As set out in Appendix F - Needs Case Review, the Authorities are not yet satisfied that WIZAD (Route 9) will not need to be used more frequently to achieve the number of takeoffs per hour projected. Route 9 overflies the western area of the AONB. As this route is a Tactical Offload Route and not currently frequently flown, any intensification in the use of this route will be noticeable and will cause harm to the special characteristics of the protected landscape. Therefore, the use of this route needs to be controlled.

Required Mitigation

- 8.53 For the construction compounds, the ZTV information is necessary in order to understand the construction phase visual effects and inform the required mitigation. The Authorities would wish to agree with the Applicant prior to the commencement of any works on each compound details of site clearance, site layout including any fencing, bunds or stockpiles and further information on the layout of structures in the compound as well as final details on lighting. It is considered that such measures should be agreed on a case-by-case basis reflecting the unique site conditions of each compound and to ensure the amenities of any neighbouring occupiers are addressed.
- 8.54 For Pentagon Field, the following need to be provided: a clear parameter plan, sections, site levels and more detailed information on the likely works both in terms of scale, duration and measures for safeguarding of nearby landscaping (e.g. fencing and safeguarding of footpaths). It is not considered that there are currently adequate controls over the landform, its construction (method of construction) and visual appearance. It is considered that it should be possible for the Applicant to provide this

information as plans and within the control documents such as the OLEMP (APP-114) of CoCP Annex 3(APP-085).

- 8.55 For Purple Parking and Car Park X, clear survey plans should be provided to demonstrate that an effective landscaped screen can be retained and be able to thrive along the road edge and that the trees can be effectively protected from and during the construction works. Opportunities should be sought to reinforce this important tree boundary adjacent to these sites and more widely along the road.
- 8.56 For the North Terminal long stay decked car park, further work should be carried out and evidence provided to ensure that the existing tree screen would not be negatively impacted by the proposed development. Further details on site levels would be helpful to understand the relationship of any new decked structure with the immediately adjoining tree cover (and the relative heights of both). Opportunities should be taken to reinforce the tree screen along this sensitive boundary.
- 8.57 The extensive loss of tree cover from around Car Park Y and the adjoining Premier Inn shown in the submitted OLEMP should be fully justified. The Applicant have no tree mitigation strategy and have not addressed adopted CBLP policy CH6 in respect of tree replacement with mitigation on site or payment in lieu.
- 8.58 For the CARE facility and other large-scale buildings, the Authorities consider further information is needed to secure more detailed design principles to inform the development, to ensure it is appropriate to its surroundings. This information should consider issues which could impinge on viewpoints including lighting, glint and glare from pv panels and cladding / materials.
- 8.59 Paragraph 14.8.15 (APP-039) states *"The Project does not require new flight paths, which avoids the noise impacts that can be associated with those. Only departures would use the northern runway, except during maintenance, as is currently the case. The majority of these would be above 1,000 feet before they leave the airfield"*.
- 8.60 This is broadly true; however, it should be understood within the context that the use of the northern runway would result in an intensification of movements on tracks that are not currently frequently used; those being the northern runway departure tracks that join with the existing departure routes and the WIZAD departure route.
- 8.61 Regarding the use of the WIZAD route, paragraph 2.1.3 (APP-172) states: *"Route 9 (WIZ) is little used at present, but is forecast to be used by about 8% of departures by 2032 in the base case, i.e. without the Project. Its use is expected to gradually rise to ease growing congestion in the London area. It is not expected to be*

used at night”.

- 8.62 The restricted use of WIZAD at night should be secured as a commitment in the DCO or in one of the control documents.
- 8.63 Paragraph 14.8.16 (APP-039) states "*The noise modelling has assumed that use of the northern runway would be limited to the period 06:00-23:00 hours, avoiding scheduling flights in the majority of the more sensitive night-time period.*"
- 8.64 Provision of more detailed overflight analysis covering movements up to an altitude of 4,000 feet would also help understand how communities are affected by the intensified use of the WIZAD departure route.

Requirements and obligations

- 8.65 The Authorities request further details are provided on the layout and appearance of the construction compounds. Given the limited information provided in any control document and the likely duration of these compounds, further design principles should be incorporated into the CoCP(Annex 3) (APP-082) and it is suggested that final details are secured via requirement.
- 8.66 In respect of the Pentagon Field, the Authorities consider that further details are needed in control documents including a parameter plan, levels plan and further information on the nature of these works specified in the OLEMP (App-114).
- 8.67 For the areas where the Authorities consider there is uncertainty over the visual impact of tree loss around the car parks, the Authorities would wish to be consulted upon additional information (revised works or clearer parameter plans) combined with improved detail in the OLEMP and /or DAS to provide certainty that these key features can be retained as part of the Project. Where tree loss occurs, mitigation should be provided in line with the policy requirements set out in accordance with adopted CBLP policy CH6. Where on site replacement is not possible, this should be as a S106 payment in lieu in accordance with the adopted policy.
- 8.68 For the CARE building and larger scale buildings further detailed design principles need to be agreed through control document such as the DAS. For further details on the suggested design approach, please refer to Section 24 (paragraphs 24.84 and 24.85).
- 8.69 To protect the tranquility of the High Weald AONB, the Applicant should maintain the use of WIZAD as a tactical offload route only.

9. Ecology, Nature Conservation and Arboriculture

Summary

- 9.1 The DCO Limits and immediate surroundings contain a number of sites of biodiversity importance including:
- The North West Zone (NWZ), a biodiversity area managed by the Applicant;
 - Land East of the Railway Line (LERL), a biodiversity area managed by the Applicant;
 - Horleyland Wood Local Wildlife Site (LWS) (ancient woodland);
 - Brockley Wood, NWZ (ancient woodland);
 - Picketts Lane Wood (ancient woodland) south of Pentagon Field
 - Semi-natural woodland adjacent to the A23; and
 - Ponds supporting great crested newts.
- 9.2 These sites support a range of habitats, including semi-natural broadleaved woodland, hedgerows, rivers and ponds (all listed as UK Priority Habitats under the Natural Environment and Rural Communities Act (2006)). The DCO Limits also supports a number of protected species, including bats, great crested newt, grass snake, badger and nightingale. The Ecology and Nature Conservation chapter of the ES (APP-034) highlights the importance of the area within the DCO Limits and surrounding countryside to a diverse community of bats. At least 14 species of bat have been recorded in or immediately adjacent to the DCO Limits, including the rare Bechstein's, Alcahloe and barbastelle bat.
- 9.3 The River Mole and Gatwick Stream, both of which flow through the DCO Limits, are significant landscape features. The riparian habitats along the River Mole and Gatwick Stream provide important wildlife corridors, both within the DCO Limits and into the surrounding countryside.
- 9.4 The NWZ and LERL are of considerable biodiversity value and key components of the ecological network. These areas are managed by the Applicant as part of their Biodiversity Action Plan (BAP). The security of long-term positive management of these areas is critical.
- 9.5 Disturbance and habitat severance within the DCO Limits, including the removal of woodland, trees and scrub along the A23, will impact the functioning of wildlife corridors, notably bat commuting routes both within the DCO Limits and the wider landscape. Maintenance of habitat connectivity across the airport and wider landscape is a major concern.

- 9.6 A range of on-site mitigation and compensation measures are proposed to address the ecological and arboricultural impacts. However, the Authorities consider that these measures are both inadequate and lacking in detail. The extent of loss of mature broadleaved woodland is of particular concern and additional compensation measures will be required to ensure no adverse impacts on broadleaved woodland habitat and bats. If, due to airport safeguarding, it is not possible to provide sufficient compensatory planting within the site, off-site woodland creation is required. Lack of compensation for the loss of two ponds is also of concern.
- 9.7 An arboricultural assessment has not been submitted. The impacts upon arboricultural features (woodlands, hedgerows and trees) in relation to their value and quality is not known. This information is required to ensure the Secretary of States decision can assess important considerations of the NPPF (paras. 136, 180 and 186), as well as adhering with local planning policies as part of any application submission and as detailed in their relevant planning document (*Crawley Borough Local Plan 2015 – 2030*). It is not known how the Project has been designed to favour the retention of existing trees, notably those of higher value or quality. Further, the suitability for protective mitigation measures has not been demonstrated, including impacts on high quality trees and ancient woodland (Horleyland Wood). The local impact upon these receptors therefore remains unknown.
- 9.8 The assessment within the ES is based on a 'maximum design scenario' which assumes all habitats within construction parcels would be lost. Thus, there must be potential to reduce some impacts at the detailed design stage.
- 9.9 It is considered that the Applicant should have adopted a landscape scale approach to assessing and addressing ecological impacts, including the need for providing off site compensatory habitat and biodiversity net gain (BNG). Enhancements to green corridors and improved habitat connectivity should extend beyond the airport, along key corridors such as the River Mole and Gatwick Stream, to mitigate impacts on bats and other wildlife.
- 9.10 The Applicant's adoption of a BNG approach is to be welcomed (APP-136). However, concern is raised that the BNG calculations are based on the areas of habitat to be lost rather than all habitats within the DCO Limits, whether or not they are impacted. Thus, the Applicant's approach does not follow the DEFRA BNG guidance, as updated on 22nd February 2024. Further opportunities for biodiversity enhancement within the Project could have been explored. For example, conversion of 'amenity grassland' on road verges and roundabouts to wildflower grassland, and the improved management of Gatwick Stream and Crawler's Brook.
- 9.11 It is critically important that the newly created habitats, whether

established in compensation for habitat loss elsewhere or for the purpose of achieving BNG, continue to be managed over the long-term to maintain and enhance their biodiversity value.

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
Ecology					
9.1A	Permanent loss of semi-natural broadleaved woodland, scattered trees and semi-improved grassland within the River Mole Biodiversity Opportunity Area (BOA) as a result of highway works to North Terminal roundabout and Longbridge roundabout	C/O	Negative	<p>Reduce: Detailed design must seek to minimise habitat loss. The design principles in the Design and Access Statement (DAS) (APP-253-257) need to be strengthened to reflect this.</p> <p>Compensate: Secure advance tree planting along or adjacent to the highway as essential mitigation.</p> <p>Compensate: Provide greater clarity in the Sketch Landscape Concept plans within the OLEMP (APP-113-116), including clearer distinction between retained and new woodland.</p> <p>Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed.</p> <p>Compensate/Enhance: Funding of Project Officer and grant scheme to support a local landscape and biodiversity enhancement initiative through a S106 Agreement.</p> <p>Monitor: Funding for a joint local authority landscape and biodiversity Compliance Officer for the duration of the construction and aftercare periods through a S106 Agreement.</p>	National Networks NPS (para. 5.32).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
9.1B	Permanent loss of a narrow strip of broadleaved plantation woodland to highway works within Gatwick Woods BOA	C/O	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this. Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed.	National Networks NPS (para. 5.32).
9.1C	Potential impacts to ancient woodland including Horleyland Wood LWS and Brockley Wood	C	Negative	Avoid: Detailed design must seek to minimise ecological impacts. The design principles in the DAS need to be strengthened to reflect this. Avoid: Stronger measures are required within the CoCP to ensure no construction activity is undertaken within ancient woodlands, and their minimum 15m buffer zone, including the need for a revised tree protection plan.	Airports NPS (para. 5.103 and 5.105).
9.1D	Permanent loss of semi-natural broadleaved woodland and mature broadleaved trees associated with highway and other works	C/O	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this. Compensate: Secure advance tree planting along or adjacent to the highway as essential mitigation. Compensate: Provide greater clarity on the extent of woodland loss and compensatory planting for each individual site. Compensate: Provide greater clarity in the Sketch Landscape Concept plans within the	National Networks NPS (para. 5.26 and 5.32). Airports NPS (para. 5.84, 5.96, 5.97, 5.102 and 5.105).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				OLEMP, including clearer distinction between retained and new woodland. Compensate/Enhance: Further explanation of the woodland BNG calculations (BNG Statement, APP-136) is requested. Compensate/Enhance: Funding of Project Officer and grant scheme to support a local landscape and biodiversity enhancement initiative through a S106 Agreement. Monitor: Funding for a joint local authority landscape and biodiversity Compliance Officer for the duration of the construction and aftercare periods through a S106 Agreement. Monitor: Further detail is requested in the OLEMP regarding both routine inspections of maintenance tasks and ecological monitoring.	
9.1E	Loss of trees	C & O	Negative	Reduce: Detailed design must seek to minimise tree loss. The design principles in the DAS need to be strengthened to reflect this. Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed.	National Networks NPS (para. 5.32). Airports NPS (para. 5.84, 5.96 and 5.102).
9.1F	Loss of scrub, notably associated with the highway works	C/O	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this.	National Networks NPS (para. 5.32). Airports NPS (para. 5.84,

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed. Monitor: Further detail is requested in the OLEMP regarding both routine inspections of maintenance tasks and ecological monitoring.	5.96 and 5.102).
9.1G	Loss of hedgerows including a hedgerow with mature oak trees to be removed to accommodate the temporary construction works immediately north of the Sussex Border Path.	C	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this. Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed.	Airports NPS (para. 5.84, 5.96, 5.97, 5.102 and 5.105).
9.1H	Impacts to riparian habitats from the proposed widening of the highway bridge over the River Mole	C/O	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this.	National Networks NPS (para. 5.26 and 5.32).
9.1I	Release of sediment during works to connect the new River Mole diversion and the channels from flood alleviation areas, including Museum Field, with	C	Negative	Reduce: Detailed design must seek to minimise ecological impacts. The design principles in the DAS need to be strengthened to reflect this.	Airports NPS (para. 5.84, 5.96, 5.97, 5.102 and 5.105).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	potential impacts on fish and invertebrates.				
9.1J	Permanent loss of two ponds within the Project site.	C/O	Negative	Compensate: New ponds need to be provided in compensation, either on-site or off-site. This is currently missing from the proposal.	Airports NPS (para. 5.84, 5.96, 5.97 and 5.105).
9.1K	Loss of semi-improved grassland	C	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this. Monitor: Further detail is requested in the OLEMP regarding both routine inspections of maintenance tasks and ecological monitoring.	Airports NPS (para. 5.84, 5.96, 5.97 and 5.105).
9.1L	Habitat fragmentation and loss of habitat connectivity across the Project site and into the surrounding landscape, including through loss of woodland and scrub associated with highway works	C/O	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this. Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed. Compensate: Provide greater clarity in the Sketch Landscape Concept plans within the OLEMP, including clearer distinction between retained and new woodland. Compensate/Enhance: Funding of Project Officer and grant scheme to support a local landscape and biodiversity enhancement initiative through a S106 Agreement	Airports NPS (para. 5.84 and 5.102). National Networks NPS (para. 5.32).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				Monitor: Funding for a joint local authority landscape and biodiversity Compliance Officer for the duration of the construction and aftercare periods through a S106 Agreement Monitor: Further detail is requested in the OLEMP regarding both routine inspections of maintenance tasks and ecological monitoring.	
9.1M	Impacts on bats, including Bechstein's, Alcahoie and barbastelle bat, through disturbance and loss of habitat, notably woodland, leading to impacts on commuting, foraging and roosting activity	C/O	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this. Mitigate/Compensate: Additional habitat creation may be required to maintain bat foraging habitat and commuting routes. Compensate: Provide greater clarity in the Sketch Landscape Concept plans within the OLEMP, including clearer distinction between retained and new woodland. Compensate/Enhance: Funding of Project Officer and grant scheme to support a local landscape and biodiversity enhancement initiative through a S106 Agreement Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed.	Airports NPS (para. 5.97, 5.102 and 5.105). National Networks NPS (para. 5.26 and 5.32).
9.1N	Impacts on birds through disturbance and loss of habitat	C	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this.	Airports NPS (para. 5.97 and 5.105).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					National Networks NPS (para. 5.26 and 5.32).
9.1O	Impacts on great crested newts through disturbance and loss of habitat	C	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this.	Airports NPS (para. 5.96, 5.97 and 5.105).
9.1P	Impacts on grass snake through disturbance and loss of habitat	C	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this.	Airports NPS (para. 5.96, 5.97 and 5.105).
9.1Q	Impacts on badgers through disturbance and loss of habitat	C	Negative	Reduce: Detailed design must seek to minimise habitat loss. The design principles in the DAS need to be strengthened to reflect this.	Airports NPS (para. 5.96, 5.97 and 5.105). National Networks NPS (para. 5.26 and 5.32).
9.1R	Impacts on fish through modifications to river channels and links to new flood alleviation areas	C	Negative	Reduce: Detailed design must seek to minimise ecological impacts. The design principles in the DAS need to be strengthened to reflect this.	Airports NPS (para. 5.96, 5.97 and 5.105). National Networks NPS

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					(para. 5.26 and 5.32).
9.1S	The NWZ and LERL biodiversity areas will be retained and continue to be managed for biodiversity by the Applicant.	C/O	Neutral	Avoid: Secure greater protection of these areas within the CoCP through vegetation retention plans and protective fencing. Compensate/Enhance: Commitment required within the OLEMP for the long-term positive management of these biodiversity areas. Monitor: The ecological monitoring section in the OLEMP needs to be expanded into a detailed ecological monitoring strategy which should include the NWZ and LERL biodiversity areas.	Airports NPS (para. 5.84, 5.96, 5.97, 5.102 and 5.105).
9.1T	The provision of on-site Biodiversity Net Gain (BNG).	O	Positive	Enhance: Delivery of BNG, comprising on-site habitat creation and enhancement, needs to be secured through the draft DCO requirements. Compensate: Provide greater clarity in the Sketch Landscape Concept plans within the OLEMP, including clearer distinction between retained and new woodland. Compensate/Enhance: Further explanation of the woodland BNG calculations (in the BNG Statement) is requested. Compensate/Enhance: Off-site BNG is needed, notably woodland and pond habitats. Enhance: Further opportunities for on-site biodiversity enhancement should be explored.	National Networks NPS (para. 5.32). Airports NPS (para. 5.84, 5.94 and 5.96).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>Monitor: Further detail is requested in the OLEMP regarding routine inspections of maintenance tasks.</p> <p>Monitor: The ecological monitoring section in the OLEMP needs to be expanded into a detailed ecological monitoring strategy.</p>	
9.1U	Habitat creation including the proposed River Mole diversion and associated grassland habitats, wet grassland at Museum Field and wet woodland and species-rich grassland at Brook Farm	O	Positive	<p>Compensate: Provide greater clarity in the Sketch Landscape Concept plans within the OLEMP, including clearer distinction between retained and new woodland.</p> <p>Compensate/Enhance: Off-site compensatory habitat creation and BNG are needed, including woodland and pond habitats.</p> <p>Monitor: Further detail is requested in the OLEMP regarding routine inspections of maintenance tasks.</p> <p>Monitor: The ecological monitoring section in the OLEMP needs to be expanded into a detailed ecological monitoring strategy.</p> <p>Monitor: Funding for a joint local authority landscape and biodiversity Compliance Officer for the duration of the construction and aftercare periods through a S106 Agreement.</p>	<p>National Networks NPS (para. 5.32).</p> <p>Airports NPS (para. 5.84, 5.96 and 5.105).</p>
9.1V	Habitat enhancements for fish: Installation of a small weir to improve fish passage during periods of low	O	Positive		Airports NPS (para. 5.84 and 5.102).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	flow where a culvert conveys the River Mole under the runways.				
9.1W	Potential impacts of unsuccessful habitat creation e.g. Partial failure or slower establishment than expected.	O	Negative	Monitor: Further detail is requested in the OLEMP regarding routine inspections of maintenance tasks. Monitor: The ecological monitoring section in the OLEMP needs to be expanded into a detailed ecological monitoring strategy. Monitor: Funding for a joint local authority landscape and biodiversity Compliance Officer for the duration of the construction and aftercare periods through a S106 Agreement.	National Networks NPS (para. 5.32). Airports NPS (para. 5.84 and 5.96).
Arboriculture					
9.1X	Tree loss within surrounding ancient woodland.	C	Neutral	Avoid: Detailed design must ensure no tree loss within ancient woodland should the Project gain consent. Mitigate: Provide an outline arboricultural method statement, outline tree protection plan and an outline tree retention/removals plan for all aspects of the Project with the CoCP. Detailed versions of these documents must be delivered within LEMP/s. Requirement: The DAS, CoCP and OLEMP, each of which is secured by requirement, need to be	National Policy Statement for National Networks (para. 5.32) and Airports (para. 5.103). National Planning Policy Framework (para. 186).

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				improved in accordance with the comments made in this table.	Crawley BC Local Planning Policy ENV2: Biodiversity.
9.1Y	Potential for the deterioration or loss of ancient (aged) or veteran trees.	C	Negative	<p>Avoid: Detailed design and mitigating tree protection measures must ensure no construction activity is undertaken within the buffer zone of ancient or veteran trees.</p> <p>Mitigate: Provide an outline arboricultural method statement, outline tree protection plan and an outline tree retention/removals plan for all aspects of the Project with the CoCP. Detailed versions of these documents must be delivered within LEMP/s.</p> <p>Requirement: The DAS, CoCP and OLEMP, each of which is secured by requirement, need to be improved in accordance with the comments made in this table.</p>	<p>National Policy Statement for National Networks (para. 5.32) and Airports (para. 5.103).</p> <p>National Planning Policy Framework (para. 136, 180 & 186).</p> <p>Crawley BC Local Planning Policy ENV2: Biodiversity.</p>

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
9.1Z	Potential for the deterioration of ancient woodland, including Horley Wood.	C	Negative	<p>Avoid: Detailed design and mitigating tree protection measures must ensure the proposed pipeline adjacent to Horley Wood remains outside the woodland and its buffer zone.</p> <p>Mitigate: Provide an outline arboricultural method statement, outline tree protection plan and an outline tree retention/removals plan for all aspects of the Project with the CoCP. Detailed versions of these documents must be delivered within LEMP/s.</p> <p>Requirement: The DAS, CoCP and OLEMP, each of which is secured by requirement, need to be improved in accordance with the comments made in this table.</p>	<p>National Policy Statement for National Networks (para. 5.32) and Airports (para. 5.103).</p> <p>National Planning Policy Framework (para. 136, 180 & 186).</p> <p>Crawley BC Local Planning Policy ENV2: Biodiversity.</p>
9.1AA	Potential for adverse impacts to retained trees due to inadequate and unsecured tree protection measures.	C	Negative	<p>Mitigate: Provide an outline arboricultural method statement, outline tree protection plan and an outline tree retention/removals plan for all aspects of the Project with the CoCP. Detailed versions of these documents must be delivered within LEMP/s.</p> <p>Requirement: The DAS, CoCP and OLEMP, each of which is secured by requirement, need to be improved in accordance with the comments made in this table.</p>	

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
9.1AB	Removal and retention of numerous trees of unknown quality trees, hedgerows and woodland groups to facilitate aspects of the Project.	C	Negative	<p>Provide: An arboricultural impact assessment within the ES.</p> <p>Avoid: Adverse arboricultural impacts through the retention of higher quality trees.</p> <p><i>"Demonstrate how design has avoided impacts to arboricultural features, favouring the retention of higher quality trees where possible."</i></p> <p>Mitigate: Provide an outline arboricultural method statement, outline tree protection plan and an outline tree retention/removals plan for all aspects of the Project with the CoCP. Detailed versions of these documents must be delivered within LEMP/s.</p> <p>Requirement: Detailed design, CoCP and OLEMP</p> <p>Compensation: Provide outline landscaping plan which includes tree planting proposals which demonstrate they comply with relevant local policies. Ensure the OLEMP secures the delivery of final landscaping plans, planting specifications and detailed aftercare plan within LEMPS.</p>	<p>National Planning Policy Framework (para. 136 & 180).</p> <p>Crawley BC Local Planning Policies CH6, ENV1 and GISPD</p>
9.1AC	Significant loss of, and inadequate protection of, numerous moderate and high quality trees and woodland	C	Negative	<p>Provide: An arboricultural impact assessment within the ES.</p> <p>Avoid: Detailed design must seek to reduce the loss of moderate and high quality trees.</p> <p>Mitigate: Provide an outline arboricultural method statement, outline tree protection</p>	<p>Crawley BC Local Planning Policies CH6, ENV1 and GISPD.</p>

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	groups to facilitate surface access works.			plan and an outline tree retention/removals plan for all aspects of the Project with the CoCP. Detailed versions of these documents must be delivered within LEMP/s. Requirement: The DAS, CoCP and OLEMP, each of which is secured by requirement, need to be improved in accordance with the comments made in this table. Compensation: Secure means of advanced planting along or adjacent to the surface access works as essential mitigation.	
9.1AD	Failure of tree establishment due to inadequate tree planting maintenance and aftercare programme.	O	Negative	Change: outline programme for tree planting within OLEMP to meet basic tree establishment requirements. Requirement: The OLEMP needs to be improved in accordance with the comments made in this table.	National Planning Policy Framework (para. 136).
9.1AE	Unidentifiable tree and woodland planting within illustrative landscape concepts providing unknown tree compensation/gain.	C	Neutral	Change: Provide illustrative landscape concepts with clearer detail (keys/legend) for tree planting as new and existing trees are not clear.	Crawley BC Local Planning Policies CH6, ENV1 and GISPD.
9.1AF	Long-term temporary loss of tree, hedgerow and woodland due to	O	Neutral	Avoid: Reduce losses during detailed design where possible. Mitigation: Provide advanced tree planting as essential mitigation wherever possible, including land adjacent to the DCO Limits.	Crawley BC Local Planning Policies CH6, ENV1 and GISPD.

Table 9.1: Summary of Impacts – ECOLOGY AND NATURE CONSERVATION AND ARBORICULTURE					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	Surface Access works			This should be secured through the OLEMP or within the BNG strategy.	
9.1AG	Potential for deterioration or loss of important hedgerows.	C	Neutral	Avoid: Provide survey findings and methodology for the identification of important hedgerows and how these are avoided if present.	Hedgerow Regulations 1997.
9.1AH	Unclear compensation strategy for tree loss potentially conflicting with BNG strategy.	O	Negative	Change: Provide clarity as to how proposed tree planting compensates for tree loss, and how planting considered within BNG does not form essential compensation.	Crawley BC Local Planning Policy CH6 and GISPD.

Policy Context

National Policy Statements

The Airports National Policy Statement (Department for Transport, 2018)

- 9.12 The Airports NPS paragraph 5.84 refers to the need to “halt biodiversity loss, support healthy, well-functioning ecosystems, and establish coherent ecological networks ...”
- 9.13 “The applicant’s proposal should address the mitigation hierarchy (which supports efforts to conserve and enhance biodiversity), which is set out in the National Planning Policy Framework” (Paragraph 5.94).
- 9.14 “As a general principle, ..., development should avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives. The applicant may also wish to make use of biodiversity offsetting in devising compensation proposals to counteract any impacts on biodiversity which cannot be avoided or mitigated. Where significant harm cannot be avoided or mitigated, as a last resort appropriate compensation measures should be sought. The development consent order, or any associated planning obligations, will need to make provision for the long-term management of such measures” (Paragraph 5.96).
- 9.15 In taking decisions, appropriate weight should be attached to designated sites of international, national and local importance, protected species, habitats and other species of principal importance for the conservation of biodiversity, and to biodiversity and geological interests within the wider environment (Paragraph 5.97).
- 9.16 Paragraph 5.102 stresses the importance of maintaining ecological corridors stating “ecological corridors and their physical processes should be maintained as a priority to mitigate widespread impacts”.
- 9.17 The significance of ancient woodland is highlighted in paragraph 5.103: “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.” It sets out development consent principles for irreplaceable habitat including ancient woodland and veteran trees (including aged trees). It states that the SoS should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats unless the national need for and benefits of the development, in that location, clearly outweigh the loss. 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.
- 9.18 Paragraph 5.105 recognises the importance of habitats and species

of principal importance: *"In addition to the habitats and species that are subject to statutory protection, or international, regional or local designation, other habitats and species have been identified as being of principal importance for the conservation of biodiversity in England and Wales and therefore requiring conservation action."*

National Policy Statement for National Networks (2014)

- 9.19 In taking decisions, appropriate weight should be attached to designated sites of international, national and local importance, protected species, habitats and other species of principal importance for the conservation of biodiversity, and to biodiversity and geological interests within the wider environment (Paragraph 5.26).
- 9.20 Paragraph 5.32 states that *"The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests. Further, it also sets out development consent principles for irreplaceable habitat including ancient woodland and veteran trees (including aged trees). It states that the SoS should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats unless the national need for and benefits of the development, in that location, clearly outweigh the loss. 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"*.
- 9.21 'As a general principle, ..., development should avoid significant harm to biodiversity' (Paragraph 5.32).

National Planning Policy Framework (NPPF)

- 9.22 The National Planning Policy Framework (NPPF), 2023 is an important and relevant consideration for National Significant Infrastructure Projects (NSIPs) to the extent relevant to the Project. However, the NPPF does not contain specific policies for NSIPs.
- 9.23 Section 12, paragraph 136 recognises the important contribution of trees to the character and quality of urban environments, as well as their help to mitigate and adapt to climate change. It also states that planning policies and decisions should ensure that opportunities are taken to incorporate trees elsewhere in developments, that appropriate measures are in place to secure the long-term maintenance of newly planted trees, and that existing trees are retained wherever possible.
- 9.24 Section 15, paragraph 180 states that planning policies and decisions should contribute to and enhance the natural and local environment by recognising 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.

- 9.25 Section 15, paragraph 186 states that planning applications should be refused where development results in the loss or deterioration of irreplaceable habitats including ancient woodland and ancient or veteran trees unless there are wholly exceptional reasons, and a suitable compensation strategy exists.
- 9.26 Annex 2: Glossary defines ancient woodland, as well as ancient or veteran trees. These definitions have been applied to irreplaceable habitat also recognised within National Policy Statements mentioned.

Local Plan Policy

Crawley Borough Local Plan 2015 – 2030 (CBLP)

- 9.27 Policy ENV2 'Biodiversity' states: "*All development proposals will be expected to incorporate features to encourage biodiversity where appropriate, and where possible enhance existing features of nature conservation value within and around the development*". In relation to Ancient Woodland, and aged or veteran trees, it states "*Planning permission will not be granted for development that results in the loss or deterioration of ancient woodland and aged or veteran trees unless the need for, and benefits of, the development in that location clearly outweigh the loss. A buffer zone between development and ancient woodland will be required in line with Natural England Standing Advice.*" The policy identifies locally designated sites such as Biodiversity Opportunity areas and areas where protected species may be present and states that "*Proposals which would result in significant harm to biodiversity will be refused unless: (i) this can be avoided by locating on an alternative site with less harmful impact: or (ii) the harm can be adequately mitigated, or as last resort compensated for.*"
- 9.28 All land to the west of Balcombe Road and east of the railway line within the DCO Limits is allocated as a Biodiversity Opportunity Area and also forms a part of the strategic green infrastructure network.
- 9.29 Policy ENV1 'Green Infrastructure' states that "*Crawley's multi-function green infrastructure network will be conserved and enhanced' though measures such as (iii) ensuring proposals which reduce, block or harm the functions of green infrastructure are adequately justified, mitigate any loss or as a last resort compensated to ensure the integrity of the network is maintained and (iv) is afforded the highest protection due to multiple functions including value for wildlife and climate change*".
- 9.30 Policy CH3 'Normal Requirements of All New Development' requires all development to "*retain existing individual or groups of trees that contribute positively to the area and allow sufficient space for trees to reach maturity*" and where trees would be lost replace in

accordance with the standards in policy CH6.

- 9.31 Policy CH6 'Tree Planting and Replacement Standards' recognises the importance of landscaping and trees to the character and appearance, visual amenity and biodiversity of the borough. It states: "*Where development proposals would result in the loss of trees, applicants must identify which trees are to be removed and replaced in order to mitigate for the visual impact resulting from the loss of the tree canopies*". The policy sets out the number of replacement trees required based on the trunk diameter of the tree being lost and normally expects tree replacement on site. Where this is not feasible or desirable, the policy states commuted sums will be sought in lieu, on a per tree basis.

Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

- 9.32 Strategic Policy DD1 'Normal Requirements for all New development' (part g) requires all development to "*retain existing individual or groups of trees and green infrastructure and biodiversity assets that contribute positively to the area, and enhance soft landscaping, designing it in as an integral part of the layout. Trees should have sufficient space to meet maturity.....all development should meet standards set out in Policy DD4 where trees are lost*".
- 9.33 Policy DD4: 'Tree Replacement Standards' retains the current requirements set out in CBLP policy CH6.
- 9.34 Strategic Policy GI1 'Green Infrastructure' strengthens the importance of this asset in an increasingly urbanised area strengthening the current policy ENV1.
- 9.35 Strategic Policy GI2 'Biodiversity Sites' replaces and strengthens policy ENV2, while policy GI3 'Biodiversity and Net Gain' requires "*all development to incorporate features to encourage biodiversity and enhance existing features of nature conservation value around the development*" and to address the biodiversity net gain requirement.
- 9.36 Strategic Policy GAT1 supports the sustainable growth of the airport provided that biodiversity net gain is provided and significant harm to biodiversity is avoided. The policy is clear that its criteria will be taken into account by the council in responding to a DCO for sustainable growth at Gatwick Airport, to be met by the airport operator and secured through appropriate requirements or S106 obligations.

Draft Horsham District Local Plan 2019-2036 (2018)

- 9.37 Policy 31 - Strategic Policy: Green Infrastructure and Biodiversity states: "Development will be supported where it can demonstrate that it maintains and enhances the existing network of green

infrastructure, the Nature Recovery Network, natural capital and biodiversity."

Mid Sussex District Plan 2014 – 2031 (2018)

- 9.38 Policy DP38: Biodiversity States "*Biodiversity will be protected and enhanced by ensuring development: Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so there is a net gain in biodiversity.... and protects existing biodiversity, so there is no net loss of biodiversity.*"

Other Relevant Local Policy

- 9.39 Green Infrastructure Supplementary Planning document, in support of Crawley Borough Council Local Plan 2015-2030 (2015). The Crawley Borough 'Green Infrastructure Supplementary Planning Document (GISPD) provides further detailed guidance on the provision of green infrastructure in the borough and expands upon the requirements of policies CH3, CH6 and ENV2. In relation to trees, Part 3 provides further detail on planting and mitigation including the amount and calculation of the on-site tree mitigation obligation. It also provides detailed information on the level of information that should be supplied when submitting an application that impacts on any trees. Part 5 provides further details on biodiversity including information on Biodiversity Opportunity Areas (policy ENV1 and ENV2) which are identified as offering the greatest opportunities for habitat creation and restoration. Gatwick Woods (LERL) is partially within the DCO Limits.
- 9.40 Tree Preservation Orders (TPO). Within the DCO Limits, are the following TPO's:
1. The Crawley Borough (Brook Farm) TPO 1986 – Reference P16.5.6 - confirmed January 1987; and
 2. The Crawley Borough (Radford Road) TPO 2021 – Reference 03/2021 - confirmed October 2021.

Applicants Approach to Assessment

Ecology

- 9.41 The assessment within the ES is based on a 'maximum design scenario' which assumes all habitats within construction parcels would be lost. Thus, there must be potential to reduce some impacts at the detailed design stage.
- 9.42 It is considered that the Phase 1 habitat survey should have extended beyond the DCO Limits and that the Applicant should have adopted a landscape scale approach to assessing and addressing ecological impacts, including the need for providing off site compensatory habitat and describing the Applicant's approach

to the provision of BNG. Enhancements to green corridors and improved habitat connectivity should extend beyond the confines of the airport, along key corridors such as the River Mole and Gatwick Stream, to mitigate impacts on bats and other wildlife.

Arboriculture

- 9.43 The assessment of ancient (aged) or veteran trees were scoped out of the ES as neither were identified during initial habitat surveys. The ES Chapter 9 (APP-034) identifies the methodology used to survey veteran trees only, no criteria for ancient trees are mentioned. The survey methodology is not considered to have adequately assessed trees for their recognition as veteran status (or ancient) as defined within the NPPF. In order to demonstrate such veteran or ancient status, the methodology should have identified how trees have been surveyed for exceptional biodiversity, heritage or cultural value, in recognition of tree size, age, condition. In addition, the areas surveyed and detailed findings have not been identified within the ES. Therefore, the potential for the deterioration or loss of veteran or ancient trees has not been discounted out by the Authorities. Further clarification of the survey methodology demonstrating the above is required, alongside detailed findings and a plan showing the survey areas.
- 9.44 The ES Chapter 9 (APP-034) states that no important hedgerows were identified, however, no detailed survey results have been presented by the Applicant for the hedgerows surveyed. Concern remains for the potential deterioration or loss of important hedgerows as their absence has not been adequately demonstrated.
- 9.45 An arboricultural impact assessment has not been submitted to support the application in identifying the removal and retention of numerous trees, hedgerows and woodland groups. The impact upon trees with consideration of their quality remains generally unknown, nor how design principles favoured the retention of higher quality trees.

Habitat Regulation Assessment (HRA)

- 9.46 The ANPS at paragraph 5.105 recognises the importance of habitats and species of principal importance. The HRA utilises the predicted air quality results for NO_x, ammonia and nitrogen deposition to determine whether there are habitat integrity risks to European designated sites. The HRA concludes there are none in relation to air quality both for the proposed development in isolation and in combination. However, this is based on the scenarios assessed within the Air Quality Chapter (paragraphs 13.110 – 13.121) that need further review to determine if the scenarios do represent a realistic worst case. The HRA is not currently suggesting mitigation is required, but the Authorities require the additional information, as set out in the Air Quality Chapter (as set out above) to be able to conclude on the findings of the HRA.

Construction Phase – impacts

Positive

Ecology

- 9.47 Although habitat creation will take place during the construction phase, newly created habitats may take many years to establish. Furthermore, construction works, whilst temporary, are generally disruptive in nature. Thus, few, if any, biodiversity benefits are expected during the construction.

Neutral

Ecology

- 9.48 The two biodiversity areas managed by the Applicant, the NWZ and LERL, are of considerable biodiversity value and key components of the ecological network. Section 9.6.172 of APP-043 states that “*Positive work through the GAL Biodiversity Action Plan (BAP) is likely to continue ...*”. Presumably positive conservation management will continue uninterrupted throughout the construction phase.

Arboriculture

- 9.49 It is acknowledged that design concepts have avoided tree removal within ancient woodland to facilitate the proposal in line with the mitigation hierarchy set out by the NPPF.
- 9.50 Proposed tree and woodland planting are not clear within the illustrative plans provided, with little other quantitative description of the gain or loss in comparison with existing baselines which are also not present (referring to Figures 1.2.1, 1.2.2, 1.2.3 & 1.2.18 of Appendix 8.8.1, (APP-113 – 116)).

Negative

Ecology

- 9.51 The extent of loss of mature broadleaved woodland, notably that which forms a linear corridor through the north of the Project, is of particular concern as it will have significant ecological impacts over the long-term on semi-natural broadleaved woodland and the assemblage of bat species (as reported in APP-034, Section 9.9.380). At least 14 species of bat have been recorded in or immediately adjacent to the Project, including the rare Bechstein’s, Alcatheo and barbastelle bat. The woodland habitats were found to be particularly important for bats. ES Chapter 9 page 9-154 states that ‘The long-term loss of woodland resulting from highway improvements in combination would have a significant effect on bat

behaviour until new woodland planting had established.'

- 9.52 Highway works will result in the loss of a large area of semi-natural broadleaved woodland and broadleaved plantation which are suitable for foraging, commuting & roosting bats. Although some woodland will be re-planted along the new highway alignment it will be years before foraging and roosting habitat and habitat connectivity is fully reinstated. Retained woodland at Riverside Garden Park, an important foraging area for Bechstein's bats, for example, will be disconnected until new woodland is established.
- 9.53 The BNG Statement (APP-136, Section 4.5.2) states that it is not possible to plant extensive areas of new woodland within the Project due to aircraft safeguarding. Thus, new planting is principally proposed along the highway improvements. The extent of woodland loss is of major concern, particularly given that woodland is a Habitat of Principal Importance under The NERC Act (2006) and owing to the significance of this wooded landscape to a range of bat species. Compensatory planting, once established, will provide only a small increase in broadleaved woodland within the DCO Limits.
- 9.54 The ES appears to conclude that there will be no anticipated impacts to ancient woodland including Horleyland Wood LWS and Brockley Wood. However, the Authorities are concerned about the potential disturbance and damage to these ancient woodlands due to the inadequacy of the proposed protection measures. It is very important, for example, that the proposed pipeline adjacent to Horleyland Wood remains outside the ancient woodland and its buffer zone.
- 9.55 Small areas of semi-improved neutral grassland would be temporarily lost in three locations during the construction period. These areas will be re-instated as semi-improved neutral grassland, as secured through the OLEMP;
- the airfield satellite contractor compound,
 - the River Mole diversion and
 - the South Terminal roundabout.
- 9.56 There is potential for construction impacts on legally protected species, including bats, badger, great crested newt, reptiles and breeding birds. Safeguards to ensure legal compliance, including pre-construction surveys and method statements, are specified in the Code of Construction Practice (APP-082). An Ecological Clerk of Works (ECoW) will be responsible for ecological monitoring to determine the success of mitigation and identify any remedial measures.
- 9.57 Ecological impacts of the Project will extend beyond the DCO Limits with potential impacts on bat populations, riparian habitats

downstream of the Airport and the spread of non-native aquatic species. Disturbance and habitat severance within the Project DCO limits, including the removal of woodland, trees and scrub along the A23, will impact the functioning of wildlife corridors, notably bat commuting routes both within the Site and the wider landscape. Maintenance of habitat connectivity across the airport and wider landscape remains a concern. The 14-year construction programme will prolong the impacts of habitat loss, and mitigation in some locations will not be in place until the end of the construction period.

Arboriculture

- 9.58 A tree of high potential for ancient status is recorded on the nationally recognised Ancient Tree Inventory (Woodland Trust, tree ID ref: 6571) which is within close proximity of the DCO Limits. There is no requirement in the DCO (or any of the control documents) to prevent its deterioration as a result of construction or associated works.
- 9.59 The potential for the deterioration of ancient woodland, including Horley Wood, is of concern due to inadequate and unsecured protection methodology. A pipeline is proposed within close proximity to Horley Wood and protection measures proposed within the CoCP have not been demonstrated to be practicable nor adequate.
- 9.60 Very limited protection measures are stated within the CoCP to mitigate impacts on arboricultural features that will be retained (barriers only); it is not expected that these measures alone will adequately retain these features without leading to adverse health implications from direct and indirect impacts from general construction activities. In addition, no suitable process to secure tree protection measures has been identified within control documents (such as the delivery and approval of an arboricultural method statement and tree protection plan following detailed design. This should be designed in accordance with a suitable arboricultural impact assessment submitted to support the DCO application).
- 9.61 The significant loss of numerous moderate and high-quality trees and woodland groups required to facilitate surface access works is of concern due the long-term temporary loss within the local vicinity. Adequate protection measures are not demonstrated for all retained trees which include high and moderate quality trees.

Operational phase - impacts

Positive

Ecology

- 9.62 The Applicant's adoption of a BNG approach is to be welcomed.

Habitat creation will include the proposed River Mole diversion and associated grassland habitats, wet grassland at Museum Field, and wet woodland and species-rich grassland at Brook Farm. The River Mole diversion will create a longer, more sinuous, re-naturalised watercourse with a diverse channel profile and associated wildlife benefits.

Arboriculture

- 9.63 No positive impacts during the operational phase have been identified.

Neutral

Ecology

- 9.64 The ES mentions that the Applicant intends to continue to manage the two biodiversity areas, the NWZ and LERL, to maintain and enhance their biodiversity value. As core biodiversity areas, and key components of the ecological network, it is very important that they retain their ecological value.
- 9.65 Until such time as the newly created habitats, including woodland, the River Mole diversion, species-rich grassland, scrub and hedgerows have properly established there are likely to be neutral, or even negative impacts, on biodiversity. Some habitats establish more rapidly than others. For example, it may take many decades for new woodland to achieve the ecological value of that it replaced.

Arboriculture

- 9.66 Trees, hedgerows and woodland will be impacted due to the surface access works with a long-term temporary loss. Landscape proposals appear to replace lost arboricultural features within the vicinity of where removal is required, though the time required to compensate such loss significantly effects trees, hedgerows and woodlands at a local context (with consideration of visual, ecological and ecosystem services). It is recognised that some of the planting proposed could, in time, provide an improved quality tree stock.

Negative

Ecology

- 9.67 Compensatory woodland creation will take many years to achieve the ecological value of that it replaced. Furthermore, due to aircraft safeguarding restrictions, compensatory woodland planting will only deliver a very small increase in the area of broadleaved woodland within the DCO Limits.
- 9.68 Habitat fragmentation and loss of habitat connectivity will continue to exert a negative impact during the operational phase.
- 9.69 Unsuccessful habitat creation, including partial failure or slower establishment than expected, could lead to negative impacts

persisting longer than anticipated.

- 9.70 Two ponds would be permanently lost to allow the construction of taxiways. No compensatory pond creation is proposed. Although the reason given is "*due to aircraft safeguarding requirements regarding wildlife strike hazards*" no evidence or further justification is given.
- 9.71 The impact of increased noise pollution in areas close to where Bechstein's bat populations have been recorded could have a detrimental impact on roosting bats. Furthermore, an intensification in the use of the WIZAD route is likely to affect areas where Bechstein's maternity roosts are known to be located and will lead to increased overflight of an area of woodland within St Leonards Forest, where barbastelle bats have been recorded, as well as the High Weald AONB.

Arboriculture

- 9.72 The OLEMP provides a typical programme of operations and landscape maintenance schedules for various landscaping elements including proposed tree, woodland and hedgerow plantings. Basic maintenance operations for individual trees is lacking, such as watering and weed control (inclusive of mulch where it may be applied).
- 9.73 It is unclear how the landscaping strategy for tree, hedgerow and woodland loss provides adequate essential compensation, nor how it considers local policies for tree loss compensation. In addition, tree planting stated to support the BNG strategy appears to include the planting proposed as essential compensation.

Required Mitigation

Ecology

- 9.74 Wherever possible, the potential to reduce ecological impacts must be considered at the detailed design stage. It is requested that the design principles, presented in the DAS (APP-253-257), include measures to minimise impacts at the detailed design stage.
- 9.75 It is difficult to interpret the information presented in the ES, including (APP-136), on habitat loss, compensatory habitat replacement and habitat gain, including the precise locations and extent of habitat involved. The Sketch Landscape Concept plans within the OLEMP provide an idea of some of the proposed habitat creation and landscaping but the keys are difficult to interpret, and it is extremely difficult to reconcile this information with that presented in the BNG Statement. As a consequence, the Authorities lack confidence that sufficient compensatory habitat, notably woodland planting, is being proposed. Greater clarity and

detail are required.

- 9.76 The Authorities request stronger measures are secured within the CoCP to ensure the protection of ancient woodlands, and a minimum 15m buffer zone, including the provision of a revised tree protection plan.
- 9.77 Measures are requested within the CoCP to ensure protection of habitats within the NWZ and LERL biodiversity areas, including vegetation retention plans and protective fencing.
- 9.78 The Authorities are not confident that the current mitigation and compensation measures are sufficient to maintain bat foraging habitat and commuting routes over the short to medium term. Additional compensation measures, including the maintenance of habitat connectivity, both on and off site, are required within the OLEMP.
- 9.79 At least two new ponds need to be provided in compensation for the two which will be lost. If the inability to replace is due to aircraft safeguarding, the Authorities suggest that compensatory ponds should be created off-site.
- 9.80 The Authorities maintain the position that the Applicant should have adopted a landscape scale approach to assessing and addressing ecological impacts, including the need for providing off-site compensatory habitat and BNG. The Authorities would expect enhancements to green corridors and improved habitat connectivity to extend beyond the confines of the DCO Limits, along key corridors such as the River Mole and Gatwick Stream.
- 9.81 It is suggested that further opportunities for biodiversity enhancement are explored within the DCO Limits, including conversion of 'amenity grassland' on road verges and roundabouts to wildflower grassland, and the improved management of Gatwick Stream and Crawter's Brook.
- 9.82 There is a lack of clarity on the roles and responsibilities of the ECoW which should include ensuring contractors are fully aware of ecologically sensitive sites and species, adhering to protected species licence requirements, supervising vegetation clearance works and ensuring protective fencing is installed, where required. These roles and responsibilities need to be specified in greater detail within the CoCP.
- 9.83 A commitment is required within the OLEMP for the long-term positive management of the NWZ and LERL biodiversity areas. Any loss or degradation of these two biodiversity areas could have significant impacts on the effectiveness and viability of the proposed mitigation areas for the Project.
- 9.84 The OLEMP refers to routine monitoring and inspection to ensure that maintenance tasks are being undertaken as programmed and

to review their effectiveness. It is recommended that this section is expanded to include frequency of inspections, methodology, recording of remedial works and reporting mechanism to Local Authorities.

- 9.85 The Authorities request that the Monitoring and Inspection section in the OLEMP (section 10.19) is expanded into a detailed ecological monitoring plan describing the monitoring methodologies, frequency and duration for each habitat type and location, including the NWZ and LERL biodiversity areas. It is recommended that newly created habitats are monitored at least annually for a minimum of 10 years. An annual report should be produced and submitted to the Authorities.

Arboriculture

- 9.86 The below mitigation measures address most of the impacts as stated within the arboricultural summary of impacts table above.
- 9.87 Further tree protection measures need to be considered to ensure construction activity does not lead to adverse impacts on trees identified to be retained, such as trees north of the M23 spur road and Horley Wood (ancient woodland). Detailed design and tree protection measures must ensure no construction activity is required near ancient or veteran trees, including this nearby recorded ancient tree and its buffer zone.
- 9.88 Detailed design of the surface access works should consider all tree removal required as a worst-case scenario and seek solutions to reduce tree loss wherever possible as the Project progresses.
- 9.89 Tree loss is stated to occur as early as 2024, tree planting provided at a reduced capacity (in terms of direct replacement locations) as late as 2032 and will not provide full compensation by the 2047 baseline year. Advance tree planting should be viewed as essential compensation and be provided wherever possible, predominantly within land adjacent to the surface access works. This should be secured within the OLEMP or BNG strategy to reduce impacts of tree loss removed by establishing tree planting early within the Project timeline.

Requirements and obligations

Ecology

- 9.90 The Authorities refer to the following requirements in the draft DCO to secure elements of biodiversity mitigation, compensation and enhancement:
- CoCP including Vegetation Retention Plans, pre-construction surveys of protected species, method statements for protected species and the role of the ECoW.

- OLEMP which sets the overarching vision and the principles, to be consistent across the LEMPS, to deliver coherent landscape and ecological features and management across the Project. The OLEMP includes landscape and ecology design principles (also secured within DAS Vol. 5, App. 1 (Sch. 2 Requirement)), an Ecology Strategy, proposals for habitat creation and management, maintenance schedule and the approach to ecological monitoring.
- 9.91 The Authorities seek that the draft DCO Requirements are amended to secure the commitment to the delivery and long-term management of BNG.
- 9.92 The Authorities seek the following through s106 Agreement:
- A joint local authority landscape and biodiversity Compliance Officer for the duration of the construction and aftercare periods.
 - A full-time Ecologist/Project Officer to help identify and co-ordinate the delivery of a local Nature Recovery Network, habitat restoration and creation projects, species conservation initiatives and biodiversity monitoring within 10km of the airport.
 - A landscape and ecology enhancement fund to financially support the above.

Arboriculture

- 9.93 The Authorities consider that further detail needs to be provided by the Applicant, with mitigation and compensation measures to be included as discussed in the following paragraphs.
- 9.94 An arboricultural impact assessment should be provided alongside the ES to identify the quality of arboricultural features throughout the Project. This should demonstrate, but not be limited to, how the design concept of the Project has avoided adverse arboricultural impacts through the retention of higher quality receptors, advise as to why tree removal is necessary, provide guidance on required mitigation measures for the protection of retained trees, and advise on compensatory tree planting strategy. It must be carried out in accordance with BS5837:2012- Trees in Relation to Design, Demolition and Construction.
- 9.95 The CoCP must provide outline arboricultural method statements, outline tree protection plans, and outline tree retention/removals plans for all trees which could be impacted by the Project. It must also identify how final versions of these documents, written in accordance with outline documents, will be secured by the DCO or relevant control documents following detailed design. These

documents must be carried out in accordance with relevant local policies, as well as BS5837:2012- Trees in Relation to Design, Demolition and Construction, and accord to statutory guidance by Natural England and Forestry Commission (Ancient woodland, ancient trees and veteran trees: advice for making planning decisions, 2022).

- 9.96 Tree compensation should be in accordance with the CBLP policy CH6 which sets out a clear approach for tree replacement standards. In accordance with the policy, replacement tree planting should be encouraged within the DCO Limits and demonstrated within the OLEMP. Where this is not possible, payment per tree in lieu should be provided within the S106 agreement.
- 9.97 In order to secure suitable landscape proposals, the OLEMP must identify that detailed landscaping plans, plant specifications and an aftercare and monitoring plan will be delivered within the LEMPs which will accord to principles and plans presented within the OLEMP. They must be carried out in accordance with relevant industry guidance including, but not limited to: BS 8545-2014 - Trees from nursery to independence in the landscape; BS5837:2012- Trees in Relation to Design, Demolition and Construction; BS3936 P1-P4- Nursery Stock; and BS 4428 -1989 - COP for general landscape operation (exc. hard surfaces).
- 9.98 OLEMP needs to demonstrate how the tree compensation strategy complies with relevant local policies for replacement tree planting. It needs to provide clarity between where essential compensation planting is provided and where enhancement planting is provided to achieve BNG.
- 9.99 The outline programme for tree planting within the OLEMP needs to meet basic tree establishment requirements such as watering and weed control (inclusive of mulch where it may be applied).
- 9.100 Illustrative landscape concepts within the OLEMP need to be presented in a way which better distinguishes existing and proposed planting (as presented in figures 1.2.1, 1.2.2, 1.2.3 & 1.2.18 of Appendix 8.8.1)(APP-113).

10. Water Environment

Summary

- 10.1 The Authorities expect to see further information to understand how proposals in respect of the overall drainage strategy have been developed and how stakeholders' comments have been addressed and how they have informed the development of the drainage strategy. The Authorities currently have significant concern in respect of the following:
- The design concept;
 - The design parameters and scope of the design principles;
 - The post construction watercourse geomorphology;
 - The inclusion of sustainable flood mitigation strategy;
 - The type and mode of attenuation features proposed;
 - The inclusion of a pumping station;
 - Ecology; and
 - Residual flood risk associated with the Project.
- 10.2 With a statutory role as the host local authority, and lead flood authority the Authorities will require these issues to be resolved by the Applicant with evidence that a suitable drainage solution can be delivered for all sites both during construction and operation.
- 10.3 While authorities accept that applicant will be working up detailed drainage designs for various aspects of the works concern there is concern that the overall concept design for drainage is flawed
- 10.4 From review of the flood risk mitigation proposals by the Applicant it appears that they are only prepared to do the bare minimum and, in some cases, using design parameters that deliver a less robust mitigation need. For the current proposal presented by the Applicant, there are no identified positive or neutral impacts at the construction or operational phases of the proposed flood mitigation strategy.
- 10.5 The Applicant should look at the identified negative impacts at each phase and provide the Authorities with a more robust and better flood risk mitigation strategy that will mitigate or alleviate where necessary the flood and environmental risk and does not create future environmental problems.

Table 10.1: Summary of Impacts – Water Environment					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
10.1A	Design concept	C/ O	Negative	It would be helpful if GAL could share their design strategies and parameters they intend to adopt and how these strategies have considered key stakeholders views to understand how aligned or otherwise, they are with our views on the drainage and FRA work. A sound drainage design concept and strategy that considers the views of the Authorities is required, as this forms the basis on which the detailed design will be developed.	ANPS – paragraph 5.147 NPPF Section 14, para 166 CBLP policy ENV8, mCBLP policy EP1
10.1B	Watercourse Geomorphology	O	Negative	Mitigation measures/strategy should be considered for the connection between the Museum Field compensation storage area and the River Mole to ensure there will be no detrimental effect on the geomorphology of the watercourse bed post construction.	NPPF section 14 para 165 and 166
10.1C	Attenuation structures/features	O	Negative	The use of concrete and high carbon emission attenuation structures should be avoided if possible. Reed beds should be considered to provide water treatment for the contaminated water earlier in the treatment process, to remove the	NPPF Section 14, para 159(b)

Table 10.1: Summary of Impacts – Water Environment					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				need for a pumping station and reduce carbon emissions.	
10.1D	Ecology	C/O	Negative	The Applicant should consider the effect of the increase in impermeable area of each catchment, the resultant change in discharge to the Gatwick stream and River Mole and the effect this will have on biodiversity and provide mitigation where necessary. Furthermore, there is an overlap between drainage and ecology matters in relation to the northwest area and the impact on the river Mole. It is necessary to understand the impact the drainage design and engineering solutions have on ecology in relation to matters such as capacity for additional volume, sediment build up, flood overspill, de-icer storage and pollution control measures.	NPPF Section 14, para 158 CBLP policy ENV10, MCBLP Policy EP3
10.1E	Proposed use of a pumping station	C/O	Negative	The long-term use of a pumping station could result in significant carbon emissions. If a pump is to be used, consideration of pump failure and emergency procedures should be provided as part of the FRA and Drainage Strategy. Alternatively, features such as reed beds should be considered to provide water	NPPF Section 14, paras 159(b) and 173

Table 10.1: Summary of Impacts – Water Environment					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				treatment for the contaminated water earlier in the treatment process, to remove the need for a pumping station and reduce carbon emissions.	
10.1.F	Residual risk	O	Negative	The possibility of a blockage within the flood structures may be more likely especially due to the ever-increasing effect of climate change. The Applicant should identify potential flood flash points and test the scenario where there will be blockage and where possible use this to influence the design. The Applicant should also explain how they should intend to deal and manage with the residual risks.	NPPF Section 14, para 166 NNNPS par 5.94 ANPS para 5.154 CBLP policies ENV8 and ENV10 mCBLP policies EP1 and EP3
10.1.G	Sustainable approach to flood mitigation	Construction and operation	Neutral	The Applicant's proposals manage the construction of additional three hectares of carriageway can be improved, and this should be an opportunity for GAL to improve on the sustainability aspect of the Highway and, in addition to water quantity, provide a water quality	NPPF Section 14, paragraph 159(a) CBLP policies

Table 10.1: Summary of Impacts – Water Environment					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				mitigation strategy in line with the SuDS manual. This should not be a case of just doing the minimum.	ENV8 and ENV10 mCBLP policy EP1

Policy Context

National policy guidance

Airports National Policy Statement (ANPS)

- 10.6 Paragraphs 5.147-5.171 deal with matters relating to climate change and flood risk, while paragraphs 5.172-5.186 deal with issues relating to water quality and resources. Paragraphs 5.147 and 5.148 requires that the impact of climate change should be considered over the lifetime of the proposed development and that the Applicant, ExA and the Secretary of State should take this into account in decision taking. The policy set out in the NPPF is referenced in respect of climate change and flood risk.
- 10.7 Paragraph 5.154 identifies the need for the residual risk to be taken into consideration when flood mitigation strategies are proposed for airport infrastructure.

National Networks National Policy Statement (NNPS)

- 10.8 Paragraphs 5.90 to 5.115 deal with flood risk. Paragraph 5.94 explains the need for the Applicant to provide a Flood Risk assessment and identifies the need for residual risks to be taken into consideration when flood mitigation strategies are proposed for road infrastructure.

Other National Policy

National Planning Policy Framework (NPPF)

- 10.9 Section 14 of the NPPF addresses planning for climate change and the need for the planning system to support low carbon emission features when taking account of flood risk.
- 10.10 Paragraph 158 states that plans should take a proactive approach to mitigating and adapting to issues such as biodiversity when considering the long-term implications for flood risk.
- 10.11 In relation to new development:
- Paragraph 159(a) emphasis that this should be planned for in ways that avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures.
 - Paragraph 159(b) continues stating that new development should be planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design.
- 10.12 Paragraph 160 states that flood risk plans should be informed by a strategic flood risk assessment that takes into account the

management of flood risk from all sources and should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities.

- 10.13 Paragraph 165 states that where development is necessary in flood prone areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.
- 10.14 Paragraph 166 states that strategic policies should be informed by a strategic flood risk assessment and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.
- 10.15 Paragraph 173, states that local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. The correct design parameters should be used to ensure the flood risk assessment is up-to-date. Additionally, the development should be appropriately flood resistant and resilient, incorporate sustainable drainage systems and safely manage any residual risk.

Local Plan Policy

Crawley Borough Local Plan 2015—2030 (CBLP)

- 10.16 Policy ENV8 'Development and Flood Risk' requires "*Development proposals to avoid areas which are exposed to an unacceptable risk from flooding and must not increase flooding elsewhere.*" The policy sets out 5 criteria development must reference and address through the application process.
- 10.17 Policy ENV 10 'Pollution Management and Land Contamination' requires developers to ensure developments do not increase environmental pollution and land contamination. Where contamination on site is known or suspected information must be provided detailing the methodology through which the risks will be addressed, ensuring treatment and removal of contaminants prior to commencement of development. Most of the Project dwells on water quantity with no provision or discussion for water quality. This should be an opportunity for the Applicant to improve on the sustainability aspect of the proposed Highway expansion and in addition to water quantity provide water quality mitigation strategy in line with the CIRIA SuDS manual.

- 10.18 Policy EP1 'Development and Flood Risk' states "Development must avoid areas which are exposed to an unacceptable risk from flooding and must not increase the risk of flooding elsewhere." It requires major development to be supported by a Flood Risk Assessment (FRA) and this should demonstrate how *"appropriate mitigation measures will be implemented to ensure that over the lifetime of the development and taking climate change into account, that flood risk is acceptable on site, and is not increased elsewhere as a result of the development"*. It requires demonstration *"that peak surface water run-off rates and annual volumes of run-off will be reduced through the effective implementation, use and maintenance of SuDS, unless it can be demonstrated that these are not technically feasible or financially viable"*.
- 10.19 Policy EP3 'Land and Water Quality' seeks to ensure that *"People's health and quality of life, property and the wider environment will be protected from unacceptable risks of, and adverse effects associated with, radioactivity, chemical substances, and biological agents in land."* In respect of the water environment it states that *"Development that has the potential to cause land contamination will only be permitted where the applicant demonstrates that: i. adequate measures will be put in place to protect land quality and any receiving waters; ii. there will be no adverse impacts to occupiers of neighbouring land or the wider environment because of the development."*

Applicant's Approach to Assessment

- 10.20 CBLP Policy ENV 8 emphasises the need for developers to demonstrate through a FRA how appropriate mitigation measures will be implemented as part of the development to ensure the flood risk is made acceptable on site. Development must not increase the risk of flooding elsewhere. In line with this policy requirement, it is necessary that the Applicant provides adequate information on how the drainage concept design was developed and demonstrate that they have considered the advice and suggestions from relevant key stakeholders such as the Environment Agency and the Authorities to understand how aligned or otherwise, they are with key stakeholder views on the drainage and FRA work done to date. This has not been forthcoming through pre application discussions and example of the detail sought is set out.
- 10.21 In line with the requirements for climate change allowance (CCA) the Applicant's initial proposal was to use a CCA of 35% but changes in the environmental agencies provisions for CCA resulted in a reduction of this to 20% CCA. The Applicant's updated flood compensation plan (APP-078) identifies that compensatory storage will be provided at the Museum Field and Car Park X, but the rationale for the drastic reduction/ removal of some of the original

proposed compensatory storage facilities has never been justified statistically to the Authorities. The following facilities will be affected by the reduction in CCA.

- (i) Reduction in the Museum Field and Car Park X flood compensation areas,
- (ii) Removal of the flood compensation area to the south of Crawley Sewage Treatment Works and the small area to the east of Museum Field; and
- (iii) The removal of the surface water drainage Pond A and the extension to Dog Kennel Pond from the initial proposal of GAL to provide additional flood storage.

10.22 These changes are significant and the authorities have reiterated that there is insufficient detail to accept the assumptions set out in this update and has requested further information which shows the storage requirement between the 35% and 20% climate change event. This should support the explanation of how this reduction was arrived at.

10.23 Additionally, the Authorities are concerned that the most up-to-date data for rainfall and climate change allowances have not been used to determine the required storage within the drainage strategy.

10.24 The most up-to-date rainfall data should be used to assess the storage volumes required for surface water drainage features, prior to detailed design, to ensure that there is enough space in the layout to incorporate the required storage.

10.25 A climate change allowance of 40% should be used for all calculations, in accordance with a 100-year lifetime for the development (both the surface access works and the airfield works).

10.26 Post-development runoff rates should be limited to Q-Bar greenfield rates where possible, rather than the 1% Annual Exceedance Probability (AEP) greenfield runoff rate. Further justification should be provided as to why limiting to greenfield rates is not possible.

Construction Phase Impacts

Positive

10.27 There are no positive construction phase impacts.

Neutral

10.28 There are no neutral construction phase impacts.

Negative

Design concept -

10.29 Paragraph 166 of the NPPF states that Strategic policies should be

informed by a strategic flood risk assessment and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards. This approach has not been followed by the Applicant. Regarding the overall drainage strategy, the Authorities remain concerned that the concept designs do not provide sufficient information. It was not clear how these designs have developed and been progressed from the PEIR consultation.

Design concept – required mitigation

- 10.30 The Applicant should share their design strategies and parameters that they intend to adopt and explain how these strategies have considered key stakeholders views to understand how aligned or otherwise, they are with the Authorities views on the drainage and FRA work.

Ecology

- 10.31 The proposed highway drainage strategy will reduce discharge by 38% to the Gatwick Stream and 50% to the River Mole. This reduction in discharge to the Gatwick Stream and River Mole could have a negative impact on biodiversity and the ecosystem.

Ecology -Required Mitigation

- 10.32 The Applicant should assess the effect of the increase in impermeable area of each catchment, the resultant change in discharge to the Gatwick Stream and River Mole and the effect this will have on biodiversity and provide mitigation where necessary. Furthermore, there is an overlap between drainage and ecology matters in relation to the northwest area and the impact on the River Mole. The Authorities wish to understand the impact the drainage design and engineering solutions have on ecology in relation to matters such as capacity for additional volume, sediment build up, flood overspill, de-icer storage and pollution control measures.

Operational Phase Impacts

Positive

- 10.33 There are no positive operational phase impacts

Neutral

- 10.34 There are no neutral operational phase impacts.

Negative

Design concept

- 10.35 The Authorities consider that the Project has a negative impact on drainage design at operational stage for the reasons set out under the construction phase (paragraphs 10.29 and 10.30 above).

Watercourse Geomorphology

- 10.36 It is most likely that the planned connection between the Museum Field compensation storage area and the River Mole will have a detrimental effect on the geomorphology of the watercourse bed directly or indirectly.

Watercourse Geomorphology -Required Mitigation

- 10.37 The Applicant's updated flood compensation plan (APP 078) states that soft/bio engineering will be used where protection is needed between the connection of the compensatory storage facility to the River Mole. This aspect of the work is fundamental to preventing future environmental disaster post construction especially to the geomorphology and banks of the watercourse and what and how the mitigation measures/strategy for this connection should be carefully considered, discussed and agreed with the relevant authorities to avoid a potential environmental disaster.

Design Parameters

- 10.38^{OBJ}The Authorities are concerned that several of the design parameters for the drainage strategy are not clear, for example what constitutes a surface access work, and an Airfield access work is not clear but inter-woven. Part of the airfield access works (APP 147) were described as extensions to the existing airport terminals (north and south) and provision of more hotel and office spaces. These are structures with a design life span of 100 years, but a different climate change allowance has been allocated resulting in reduced storage provided and a potential increase in flood risk to the development site or elsewhere. Paragraph 5.147 of the ANPS requires that the appropriate climate change should be used for airports and states that the applicant, examining authority and the Secretary of states in taking its decision should consider this.

Design Parameters - Required Mitigation

- 10.39 The most up-to-date rainfall data should be used to assess the storage volumes required for surface water drainage features, prior to detailed design, to ensure that there is enough space in the layout to incorporate the required storage.
- 10.40 A climate change allowance of 40% should be used for all calculations, in accordance with a 100-year lifetime for the development (both the surface access works and the airfield works).

- 10.41 Post-development runoff rates should be limited to Q Bar greenfield rates where possible, rather than the 1% AEP greenfield runoff rate. Further justification should be provided as to why limiting to greenfield rates is not possible.
- 10.42 The applicants are proposing to construct some attenuating features such as the Museum Field and Car Park X flood compensating structures and other features planned for the carriage way expansion (APP 147 and 148). While it is understood that there is the need for the applicant to attenuate water using systems that can be designed to reduce the attraction of birds, the use of a more sustainable approach with reduced carbon footprint should be the preferred option when designing these features rather than using designs with a high carbon footprint such as mass concrete structures. This approach is endorsed in para 159(b) of the NPPF which states that new development should be planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design.

Ecology (Negative impact at construction and operation phase)

- 10.43 The Authorities consider that the Project has a negative impact on ecology at the operational stage for the reasons set out under the construction stage see (paragraphs 10.31 and 10.32).

Residual risk

- 10.44 While the applicant has proposed several mitigation strategies as it relates to flood risk, there will still be the issue of residual risk especially when annual exceedance probability (AEP) including its associated climate change is overwhelmed or a blockage/hindrance of flow within the drainage system. NPSNN Paragraph 5.94 and ANPS paragraph 5.154 identifies the need for residual risks when flood mitigation strategies are proposed for roads and airports.

Residual Risk -Required Mitigation

- 10.45 The applicant should model and test possible different scenario of blockages especially at key flood flash point structures which may be sooner rather than later and where necessary and possible influence the design to deliver a better out turn especially due to the ever-increasing effect of climate change, and they should explore and provide plans of how they intend to deal with the residual risks in the event these structures are overwhelmed or a possible blockage on the watercourse.

Inclusion of a pumping station (Negative impact at operational phase)

- 10.46 The long-term use of a pumping station (ES Appendix 11.9.6 Flood Risk Assessment - New pumping station proposed in the southwest zone, south of the existing runway in the former Pond A catchment APP- 036) could result in significant carbon emissions and may not be operational in the event of a flood.

Inclusion of a pumping station – Required Mitigation

- 10.47 If a pump is to be used, consideration of pump failure and emergency procedures should be provided as part of the Flood Risk Assessment and Drainage Strategy. Alternatively, features such as reed beds should be considered to provide water treatment for the contaminated water earlier in the treatment process, to remove the need for a pumping station and reduce carbon emissions.

Sustainable approach to flood mitigation (Neutral impact)

- 10.48 The Applicant has proposed an additional three hectares of carriageway will be created from the proposed work to the highway and three attenuation basins and two oversized pipes have been planned as part of the highway drainage strategy to mitigate the increase in impermeable area.

Sustainable approach to flood mitigation - Required Mitigation

- 10.49 The Applicant to improve on the sustainability aspect of the Highway and in addition to water quantity provide water quality mitigation strategy in line with the SuDS manual, this should not be a case of just doing the minimum.

Requirements and obligations

- 10.50 In respect of drainage design at construction and operational stages, the Applicants first needs to provide further information to the Authorities in respect of drainage design to verify the baseline assumptions in the modelling and design and once these details are agreed, work this information into control documents and requirements as needed.
- 10.51 In respect of ecology, further information is needed to demonstrate that the mitigation strategy has been considered for any detrimental effect the reduction in discharge to the Gatwick stream and the River Mole because of the proposed NRP drainage strategy.
- 10.52 In respect of watercourse geomorphology further evidence to show that mitigation strategy has been considered for the connection between the museum field compensation storage area and the river Mole and will be included in the design and construction phase.
- 10.53 In respect of design parameters Paragraph 166 of the NPPF states that development should manage flood risk from all sources. Paragraph 173 of the NPPF states that flood risk should not be increased elsewhere. Additionally, the development should be appropriately flood resistant and resilient, incorporate sustainable drainage systems and safely manage any residual risk.
- 10.54 In respect of attenuation structures/ features, the use of a more sustainable approach with reduced carbon footprint will be the

preferred option rather than using designs with a high carbon footprint. Section 14 of the NPPF talks about the need to adopt a planning system that supports low carbon emission features when taking account of flood risk.

- 10.55 In respect of residual risks, these should be identified and plans put in place to address them. Such an approach is consistent with the advice in the NPPF paragraph 166. The Applicant should consider cumulative impacts in, or affecting, local areas susceptible to flooding. They should do this and bring forward a plan for managing any residual risk and, if possible, consider this at the design phase.
- 10.56 In respect of the pumping station, alternative sustainable design solutions should be considered. The use of concrete and high carbon emission attenuation structures to be avoided if possible. Reed beds should be considered to provide water treatment for the contaminated water earlier in the treatment process, to remove the need for a pumping station and reduce carbon emissions.

11. Agricultural Land Use and Recreation

Summary

- 11.1 The ES Chapter 19 covers agricultural land use and recreational resources (including open space, public rights of way (PRoW) and linear recreational routes) and the effects of the project on these assets during the construction and operational periods.
- 11.2 The Authorities have no specific comments to make on the agricultural assessment.
- 11.3 The quality and accessibility of the footpath and cycle networks are considered key design components if the applicant's commitments to sustainable transport and active travel are to be enabled and there are concerns about the impact of the development on some PRoW during and post construction. Furthermore, it is also evident in the details set out in the OLEMP and PRoW Strategy that there is no commitment to any enhancements on PRoW network within the DCO Limits or near to it other than to mitigate at a minimum where paths and routes are closed or diverted with no equivalent or better provision and no maximising of benefits to the local community. The Authorities consider this is a missed opportunity given the ambitious targets set by GAL in its Surface Access Commitments for promotion of active travel to the airport.
- 11.4 Where there are impacts to PRoW and open space during construction and operation, the proposed mitigation measures are unclear and further information will be required.

Table 11.1 Summary of Impacts – Agricultural Land Use and Recreation					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
11.1A	Creation of new informal recreation space – Museum Field	Operation	Positive	Change: The relative inaccessibility via an indirect permissive route and remote location of the space with poor links to existing PRoW is a barrier to effective use by the nearby community. Applicant should consider improved connectivity and provide further detail on management, signposting etc. Requirement: Site specific LEMP	CBLP policies SD1, CH11 and ENV4. Although not a PRoW or replacement open space these policies encourage provision of accessible open space in suitable locations. mCBLP policies SD2, OS1, OS3
11.1B	Impact on PRoW 359Sy Pentagon Field and PRoW 360Sy	Construction and Operation	Negative	Change: Further information required on how the path will be maintained during construction and operation phases. Requirement: Details required within control document with accompanying plans.	CBLP policies CH11 and GAT1 require adequate mitigation of PRoW to provide route of equal or better value and to ensure airport operations are mitigated. mCBLP policies OS3, GAT1*
11.1C	Timing and adequacy of replacement open space Car Park B	Operation	Negative	Change: further information is needed on timing, management qualitative amenity benefit and purpose. Requirement: Details required within accompanying control documents.	CBLP policy ENV4 requires equivalent or better provision (quality and quantity) in a suitable location. mCBLP policy OS1

Table 11.1 Summary of Impacts – Agricultural Land Use and Recreation					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
11.1D	Lack of PRow and active travel enhancements	Operation	Negative	Change: Further information on commitments to improvements to NCR21 to promote active travel. At present there are no real PRow improvements proposed either inside or outside the DCO Limits. Requirement See reference in Section 17 Table 17.L for further details	CBLP policies CH11 and GAT1 require adequate mitigation of PRow to provide route of equal or better value and to ensure airport operations are mitigated. mCBLP policies OS3, GAT1*

Policy Context

National Policy Statements

Airports National Policy Statement (ANPS)

- 11.5 The ANPS requires that sustainable travel to and from the airport is maximised as much as is possible (paragraph 5.5).
- 11.6 Paragraph 5.112 requires that existing open space should not be developed unless the land is not needed or unless the loss would be replaced by equivalent or better provision in a suitable location.
- 11.7 Paragraph 5.119 states "*Where green infrastructure is affected, the applicant should aim to ensure the functionality and connectivity of the green infrastructure network is maintained and any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space, including appropriate access to National Trails and other public rights of way*". It continues in paragraph 5.123 stating "*The applicant is expected to take appropriate mitigation measures to address adverse effects on National Trails, other public rights of way and open access land and, where appropriate, to consider what opportunities there may be to improve access. In considering revisions to an existing right of way, consideration needs to be given to the use, character, attractiveness and convenience of the right of way*".

National Networks National Policy Statement (NNNPS)

- 11.8 This document highlights the Government's commitment to sustainable travel and expects the needs of cyclists and pedestrians to be addressed (paragraphs 3.16 and 3.17).
- 11.9 It requires equivalent or better provision for any open space lost (paragraph 5.166) and in respect of PRow reflects the guidance in the ANPS (see para 11.7 above) in respect of mitigation of impacts on green infrastructure (paragraphs 5.179 - 5.181)

Other National Policy

National Planning Policy Framework

- 11.10 Section 8 Paragraphs 102 and 103 highlight the importance of access to a network of high-quality open spaces for the health and well-being of communities as well as the benefit of such space for nature and to support climate change with existing open space being protected unless exceptions are demonstrated. Paragraph 104 states "*Planning policies and decision should protect and enhance existing rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks....*".

11.11 Section 9 promotes sustainable transport and highlights the opportunities to promote walking and cycling and provide attractive well-designed routes through new development.

Local Plan Policy

Crawley Borough Local Plan 2015-2030 (CBLP)

11.12 The policies of most relevance are:

- CH11 'Rights of Way and Access to the Countryside' which seeks to prevent the loss of Public Rights of Way (PRoW) and in such cases seeks to ensure re-provision of equal or better value. The policy also requires proposals which detract from a right of way or recreation route to adequately mitigate the impacts or provide a new resource of equal or better value.
- ENV1 'Green Infrastructure' states that "*Crawley's multi-functional green infrastructure networks will be conserved and enhanced*" through measures including the supporting of proposals which protect and enhance the network or design new green infrastructure, requiring full justification of proposals which reduce, block or harm green infrastructure and seek mitigation or as last resort compensation. The policy recognises and affords the green infrastructure network the highest protection due to its multi-functional value for wildlife, access to countryside, climate mitigation and recreation and seeks to maximise opportunities to improve and extend the network of open space
- ENV4 'Open Space, Sport and Recreation' sets out a presumption against a loss of existing open space unless "*b) the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quality and quantity in a suitable location*".
- GAT1 'Development of the Airport with a Single Runway' supports development of a single runway, 2 terminal airport provided that "*ii. Satisfactory safeguards are in place to mitigate the impact of the operation of the airport on the environment including surface access...*"

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11.13 The policies of most relevance are:

- Strategic Policy SD2 'Enabling Healthy Lifestyles and Wellbeing' which requires new development to amongst other things: "*Provide opportunities for high quality open space, play and recreation*"; and "*Prioritise the use of accessible and reliable sustainable transport and active travel through providing greater levels of safe and attractive opportunities for active travel*".
- OS1 'Open Space, Sport and Recreation' retains the policy requirements quoted from ENV4 above.

- OS3 'Rights of Way and Access to the Countryside' expands upon the requirements set out in policy CH11 above but adds increasing emphasis on accessibility for all users including those who may have disabilities and impairments.
- Strategic Policy GAT1 'Development of the Airport with a Single Runway' (modification relates to biodiversity only) supports the development of a single runway, 2 terminal airport provided that:

"ii. The adverse impacts of the operation of the airport on the environment, health and living conditions of the local community, including.....surface access....are minimised ,that where necessary satisfactory safeguards are in place to ensure impacts can be adequately mitigated or, as last resort, fair compensation secured;'
and

'iv – adequate supporting infrastructure, particularly for surface access can be put in place; and

v. Benefits to Crawley's local economy and community are maximised".

West Sussex Transport Plan 2022–2036 (2022)

11.14 The [West Sussex Transport Plan](#) was adopted in April 2022 and is WSCC`s main policy on transport. The Plan contains a number of thematic and area transport strategies that the intended to deliver the plans objectives and address key challenged by improving, maintaining and managing the transport network.

Other Relevant Local Policy

11.15 *West Sussex Walking and Cycling Strategy (2016-2026)* contains WSCC`s aims and objectives for cycling and walking during the period 2016 – 2026. It provides guidance in support of prioritising cycling and walking infrastructure in new development and contains a list of over 300 potential walking and cycling improvements.

11.16 [The West Sussex Rights of Way Management Plan \(2018–2028\)](#) sets out WSCC's approach to managing the Public Rights of Way network, as required under the Countryside and Rights of Way Act 2000 (i.e. to produce a Rights of Way Improvement Plan). It outlines opportunities available for considering improvements to the network and sits alongside the walking and cycling strategy.

11.17 *Crawley's Local Cycling and Walking Infrastructure Plan (LCWIP) 2021* - This document identifies physical infrastructure improvements to enable an increase in walking and cycling and includes cycle and walking route plans, a programme of infrastructure improvements and details on how measures and guidance within the document can be implemented. The document highlights NCR21 as a key route from Crawley Town Centre via Manor Royal Employment area to Gatwick airport for cyclists and sets out measures to improve this route. The relative impermeability and inaccessibility of land east of the railway within the DCO Limits for walking and cycling is also

evident from the analysis.

- 11.18 The Crawley Borough Green Infrastructure SPD (GISPD) – provides further guidance on CBLP policies CH11, ENV1 and ENV4 listed of relevance above. Paragraphs 2.23 -2.27 explain the importance of rights of way and access to the countryside, key factors relating to accessibility and use of the local PRow and identifies opportunities for improvements (in general and in specific locations including around the DCO Limits).

Applicant's Approach to the Assessment

- 11.19 There are no detailed comments in respect of the assessment methodology adopted for this chapter of the ES.

Construction Phase – impacts

Positive

- 11.20 There are no identified positive construction impacts.

Neutral

- 11.21 There are no identified neutral phase construction impacts.

Negative

- 11.22 The temporary closure of FP346/2Sy at the North Terminal does pose a considerable interruption to users' ability to continue along the Sussex Border Path. The change at this area from a footpath to a shared footway and cycleway is not an improved experience for users. The route will require sharing with cyclists and also the new roundabout poses a challenge for non-motorised users. Whilst this is presumably planned as public highway and not PRow there should be priority for non-motorised users.

- 11.23 Pentagon Field - This site is identified for use for the placement of spoil material during the project construction phase with considerable land raising within the site of around 4 metres. The ES suggests that while there would be potential disruption to PRow 359Sy which runs along the west and northern boundaries of Pentagon Field, the route would be kept open while the field is remodelled and relandscaped. It is unclear from the information provided in chapter 19 of the ES (APP-044), the PRow Management Strategy (APP-215) or any of the other control documents what impact this would have on users of the path although it appears the field will be fenced off in some form. Issues of dust, noise, drainage runoff from the site and potential damage from construction vehicles would all result in a deterioration in the condition of this PRow.

- 11.24 Footpath 360Sy (fenced section between car parks) - While not referenced in the ES, the Authorities consider this route would be impacted by the proposed pumping station east of the railway. The

illustrative pipe route intersects this footpath and given the condition and width of the path would likely necessitate its temporary closure.

- 11.25 The construction phase will negatively impact access across the network due to closures, temporary diversions and permanent changes of legal lines and an amenity element. The works will be alongside routes and temporary diversions which make use of the network less attractive and should be carefully considered and mitigated.

Operational phase - impacts

Positive

- 11.26 Museum Field, which is required as part of the flood compensation for the Project, has been identified as an area for the creation of informal recreational space. This is considered to have a positive long-term impact by allowing permissive public access for the local community onto this site once the flood compensation area has been created and the site re-landscaped. CBC has previously raised concerns about the accessibility and relative recreational value of this area due to the relatively poor condition of the current permissive path to the site and still consider that the opportunity should be taken to create a new path onto Horley Road to allow the Museum Field to be more readily accessible to nearby residents and assist in the connectivity of newly created wildlife / recreational asset as this is currently very poorly connected to the existing PRow network. There is limited information in the OLEMP about the management of the area or access paths.

Neutral

- 11.27 There are no identified neutral operational phase impacts.

Negative

- 11.28 Pentagon Field – following the placement of spoil and re-landscaping of the site the final landform could result in a more enclosed footpath 359Sy along the west side of site between the field and the existing fenced car park to the west. This would detract from the attractiveness of route for walkers by creating a sense of enclosure to another local footpath through the project area decreasing its attractiveness as a recreational route. This has already happened to nearby footpath 360Sy which is enclosed between 2 car secure car parks and has resulted in visual harm. (Please refer to Appendix J for site photographs). Due to path conditions, the sense of narrowness of the path detracts from the recreational value of this PRow and feels unsafe.
- 11.29 It is not clear that replacement open space to be provided under Article 40 is appropriate. The land lost is in Surrey (Reigate and Banstead) and the re-provision is partially within Crawley. There is no

assessment of the qualitative amenity benefit and no clarity on its function, purpose, use or future management. The timing of the provision is also of concern as delivery of the provision will be around 7 years after the original open space is lost.

- 11.30 The Authorities are disappointed that within the ES chapter just 2 enhancements are identified within the DCO Limits (see Table 19.8.1). The second 'enhancement' stated as "Consideration of improvements to NCR 21 south of Airport" it not an enhancement as there is no commentary on what such 'consideration' might be. The LCWIP and GISPD provide clear opportunities for active travel enhancements to NCR21 and nearby PRow and the Applicant has been made aware during the pre-application process about the poor and unattractive condition of some rights of way through the project site such as 360Sy (due to the influence of the fenced car parking areas on either side, the overgrown and unkept condition and narrowness of the path and the proximity a polluted drainage ditch running alongside). Please refer to Appendix J for site photographs.

Required Mitigation

- 11.31 In respect of Museum Field, further consideration should be given to the routing and maintenance of the permissive paths into and around the site. There is limited information in the OLEMP about the management of the area or access paths which presumably will continue to be managed by the Applicant and should be provided in the detailed site LEMP.
- 11.32 Further detail should be provided on the impacts of users of footpath 359Sy from the Pentagon Field works and 360Sy from the pipe route and the proposed measures to mitigate any negative impacts.
- 11.33 The current PRow strategy is considered a 'do minimum' approach. Mitigation for closures relying upon existing rights of way rather than taking the opportunity to create a more optimal route for active travel within land within the Applicant's control. Specific requests from the Authorities to provide more attractive routes for cyclists and pedestrians through the project area to facilitate active travel for the local community should be addressed.

Requirements and obligations

- 11.34 In addition to the details currently provided by the Applicants further information should be provided in the PRow strategy to address the negative impacts identified for footpaths 359Sy and 360Sy.
- 11.35 Further enhancements to promote active travel within the Project limits should be provided. These include a commitment to upgrade Sussex Border Path (from a footpath to a bridleway) adjacent to the Airport and into Surrey and also formalise the permissive path between footpaths 346Sy and 347Sy marked in blue on the Map in Appendix K. In addition, the Applicant should review further enhancements including explore the upgrade of footpaths 360Sy

(south of the lagoon), 361Sy, 358Sy and 359Sy from footpath to bridleway east of the railway within the DCO Limits (located within the light green polygon on the Map in Appendix K to support improved active travel to and from the airport and to improve the recreational access for local residents impacted by development.

- 11.36 Outside the DCO Limits, a commitment to explore/contribute toward the upgrades of footpaths 351Sy, 1527, 1526, 1526/1, 1524, 1528 and 353Sy from footpath to bridleway (located within the purple polygons on the Map in Appendix K) to improve active travel links from local area to and from airport which would benefit employees and would also improve a cohesive active travel network for recreational users.

12. Geology and Ground Conditions

12.1 This Section concerns ES chapter 10 Geology and Ground Conditions [AP-035] and focuses on the issue of Mineral Safeguarding.

Minerals Safeguarding

Summary

- 12.2 Almost the entire project site boundary is underlain by the Weald Clay Formation, which is safeguarded by the West Sussex Joint Minerals Local Plan (JMLP) (July 2018, Partial Review March 2021). Of the project site boundary (812ha), only some 11% (91ha) remains undeveloped.
- 12.3 The Airport NPS, paragraph 5.117 states that, 'The applicant should safeguard any mineral resources on the proposed site for the preferred scheme as far as possible.'
- 12.4 The Airport NPS, Paragraph 5.121 states that 'Where the preferred scheme has an impact on a mineral safeguarding area, the Secretary of State must ensure that the applicant has put forward appropriate mitigation measures to safeguard mineral resources.'
- 12.5 It is important, therefore, that consideration is given to ensuring that minerals are not needlessly sterilised. The Applicant has provided a Mineral Resource Assessment (MRA) (APP-139) that identifies brick clay is likely to be sterilised given the overriding need for the Project outweighing the need for the clay (paragraph 8.1.1). Prior extraction is not considered appropriate or practicable (table 7.2.1).
- 12.6 The Applicant proposes that surplus/incidental clay that is not used on site during construction will be sent off-site for sale or reuse elsewhere. The mechanism to achieve this is the Materials Management Plan, via the CoCP Annex 5 – Construction Resource and Waste Management Plan (CRWMP) (APP-087).
- 12.7 The CoCP (APP-082) is secured by Requirement 7 of the dDCO (AS-004) and therefore it is important to ensure that it is fit for purpose. Neither the CoCP nor the CRWMP refer to national policy or the adopted West Sussex JMLP. Without reference to key policies in the JMLP, it is not clear how the requirement to avoid needless sterilisation of safeguarded clay will be met.
- 12.8 The Secretary of State, as the decision maker for the Project, will be required to consider whether there is an overriding need for the development and whether the Applicant's proposed mechanisms are sufficient to avoid needless sterilisation.

Table 12.1: Summary of Impacts – Minerals Safeguarding					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
12.1A	Potential needless sterilisation of safeguarded clay	C / O	Negative	Mitigate - provide sufficient detail within the CoCP (APP-082) and the CoCP Annex 5 – Construction Resource and Waste Management Plan (APP-087) about safeguarding minerals, the outcomes of the MRA, and how prior extraction of any surplus clay will be managed, where it will be sent, and how needless sterilisation is to be avoided, through the Materials Management Plans that are proposed to be prepared (paragraph 2.1.8, CRWMP, APP-087).	The Airport NPS, (paragraph 5.117) The Airport NPS, (paragraph 5.121) West Sussex Joint Minerals Local Plan: Policy M9 Safeguarding Minerals.

Policy Context

National Policy Statements

- 12.9 The Airports NPS, paragraph 5.117 states that, 'The applicant should safeguard any mineral resources on the proposed site for the preferred scheme as far as possible'.
- 12.10 The Airports NPS, Paragraph 5.121 states that 'Where the preferred scheme has an impact on a mineral safeguarding area, the Secretary of State must ensure that the applicant has put forward appropriate mitigation measures to safeguard mineral resources.'
- 12.11 The National Networks NPS, Paragraph 5.196 states that 'Where a proposed development has an impact on a Mineral Safeguarding Area, the Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to safeguard mineral resources.'

WSSC Relevant Policy

- 12.12 The West Sussex JMLP (July 2018, Partial Review March 2021) sets out a Vision, Strategic Objectives, and a comprehensive set of policies for consideration of minerals development in the County.
- 12.13 Strategic Objective 5 'seeks to safeguard potential economically viable mineral resources from sterilisation'.
- 12.14 Policy M9(b), Safeguarding Minerals, sets out how consideration should be given to proposals for non-mineral development within Mineral Safeguarded Areas;
- (b) Soft sand (including potential silica sand), sharp sand and gravel, brick-making clay, building stone resources and chalk reserves are safeguarded against sterilisation. Proposals for non-mineral development within the Minerals Safeguarded Areas (as shown on maps in Appendix E) will not be permitted unless:*
- (i) Mineral sterilisation will not occur; or*
 - (ii) it is appropriate and practicable to extract the mineral prior to the development taking place, having regards to the other policies in this Plan; or*
 - (iii) the overriding need for the development outweighs the safeguarding of the mineral and it has been demonstrated that prior extraction is not practicable or environmentally feasible.*
- 12.15 Parts of the Project is underlain by Weald Clay, which is safeguarded. Policy M9 requires developers to demonstrate that either no mineral sterilisation will occur, that prior extraction will take place, or that there is an overriding need for the development that outweighs the need for the safeguarded minerals, where it is demonstrated that

prior extraction is not practicable or environmentally feasible.

12.16 Paragraph 6.9.12 of the JMLP makes reference to safeguarding guidance. [The West Sussex Minerals and Waste Safeguarding Guidance](#) (March 2020) provides information for applicants for development that may impact safeguarded resources. Chapter 2 is specific to safeguarding mineral resources and sets out how consideration should be given to safeguarding minerals, through the preparation of a MRA to address clauses (b)(ii) and (b)(iii) of Policy M9.

12.17 The guidance also provides a number of maps that show the extent of the safeguarded minerals in West Sussex.

12.18 The [West Sussex Monitoring Reports](#) are prepared annually, and provides information related to minerals and waste planning and activities in West Sussex. The reports provide information specific to each mineral type, including the locations of existing sites, the amounts extracted on an annual basis, demand levels, and general information related to the JMLP.

Applicant's approach to assessment

12.19 The Applicant has identified mineral safeguarding policies, mineral resources, and provided a MRA (APP-139). The approach to assessment by the Applicant is therefore sufficient in providing an understanding of the issue at hand. The MRA identifies that safeguarded clay will be sterilised, and the Applicant indicates that there will be mechanisms in place to address this issue.

Construction Phase – impacts

Positive

12.20 No positive impacts during the construction phase are identified.

Neutral

12.21 No neutral impacts during the construction phase are identified.

Negative

12.22 The Applicant has provided an MRA [APP-139] and identifies that the majority of the Project falls within the Brick Clay Mineral Safeguarding Area, as defined by the JMLP.

12.23 Brick clay is a regionally important resource, and brickmaking has a long-established history in the central and north eastern parts of the county. Brick clay is also used to produce tiles, pavers and pipes. At present, there are four active clay quarries that provide clay for four brickworks (Pitsham, Warnham, Laybrook, and Freshfield), the details of which can be found in the above linked monitoring reports.

- 12.24 Brickworks, or manufacturers of clay products, are generally located on or near to the extraction sites that supply them, and therefore rely on their own sites for their resource. Brickworks sometimes require importation of materials for blending purposes, and there may be opportunities for these sites to take any materials extracted prior to development, to avoid needless sterilisation. The submitted MRA does not consider the existing sites in West Sussex that could make use of any incidental clay.
- 12.25 The assessment identifies that some 91ha of the Project is undeveloped, and that some 0.03km³ of Brick Clay is potentially available (paragraph 5.2.1). The Applicant has prepared an MRA that concludes that brick clay is likely to be sterilised given the overriding need for the Project outweighing the need for the clay (paragraph 7.3.4).
- 12.26 The assessment goes on to state that '*surplus safeguarded minerals excavated in undeveloped areas of the Project site are exported off-site for sale (subject to third party agreement), or reuse, under the Materials Management Plan...the requirement of the NPSs to 'safeguard any mineral resources on a proposed site as far as possible'*' would be met (paragraph 7.1.1).
- 12.27 Furthermore, the Applicant states that 'The proposed management of incidental mineral extraction would therefore represent the 'appropriate mitigation measure' required by the NPSs with respect to MSA...and that this is to be taken forward under the Materials Management Plan (MMP)' (paragraph 7.1.2)

Code of Construction Practice (APP-082) and Construction Resources and Waste Management Plan (APP-087)

- 12.28 The CoCP (APP-082) is secured by Requirement 7 of the dDCO (AS-004) and therefore it is important to ensure that it is fit for purpose.
- 12.29 The CoCP fails to reference mineral safeguarding or policy related to mineral safeguarding (Airport NPS and JMLP). The CoCP does state, in paragraph 5.5.12, that 'opportunities will be explored to reuse offsite the surplus cohesive material of the Weald Clay Formation which cannot be retained on site and/or opportunities with brickworks operators within the county to receive incidentally recovered brick clay. Further information on resource use is provided in the ES Appendix 5.3.2: CoCP Annex 5 -Construction Resources and Waste Management Plan'.
- 12.30 The CoCP does not make reference to or mention mineral safeguarding or Weald clay beyond that set out in the paragraph above.
- 12.31 The CRWMP aims to demonstrate how waste and the use of resources have been considered during the Project, and set out measures for managing waste and resources during construction

(paragraph 1.2.1, APP-087), and the applicant will retain overall responsibility for implementing the CRWMP (paragraph 1.4.3).

- 12.32 Section 2.3 of the CRWMP sets out relevant planning policy. This section does not reference Airports NPS or Networks NPS paragraphs related to mineral safeguarding (see paragraphs 12.9-12.11 above), nor does it reference the West Sussex JMLP. It is noted that it does reference the West Sussex Waste Local Plan in relation to managing waste.
- 12.33 The only reference made in the CRWMP related to Weald Clay (that repeats the statement within the CoCP (see paragraph 12.29 above), is in paragraph 4.5.14, that states, 'Opportunities will be explored to reuse offsite the surplus cohesive material of the Weald Clay Formation which cannot be retained on site, including potential for brickworks operators within the county to receive incidentally recovered brick clay'.
- 12.34 The CRWMP does not provide further information on mineral safeguarding or the Weald Clay formation, as suggested by the CoCP.

Operational phase - impacts

Positive

- 12.35 No positive impacts during the operational phase are identified.

Neutral

- 12.36 No neutral impacts during the operational phase are identified.

Negative

- 12.37 No negative impacts during the operational phase identified.

Required Mitigation

- 12.38 The proposed mitigation measure to ensure that safeguarded Weald Clay is not needlessly sterilised is a commitment by the Applicant to require the production of a MMP, secured through the CoCP, that is to be prepared prior to construction. The CoCP and associated documents are severely lacking, and therefore needless sterilisation is likely to occur.
- 12.39 The CoCP and CRWMP do not reference mineral safeguarding, relevant policies and guidance, incidental or prior extraction, or information about local mineral operators that have the required equipment to process any safeguarded minerals that are extracted. It is noted that Figure 5.1 of the CRWMP provides information on waste sites within 15km of the Project. A similar figure could be included to show where mineral operators/brick sites are located.

12.40 The Applicant should ensure that the mechanisms proposed through the CoCP and CRWMP are fit for purpose, and that enable suitable Weald Clay to be safeguarded in line with Policy M9 of the JMLP and meet the requirements of the Airports NPS regarding mineral safeguarding.

13. Air Quality

Summary

- 13.1 The construction phase of the Proposed Development has been assessed (ES Chapter 13 Air Quality, APP-038) for construction dust and particulate matter, odour and emissions from traffic and non-road mobile machinery (NRMM).
- 13.2 All assessments undertaken for the different construction activities were considered by the Applicant to be not significant for air quality, but further information is required to support these conclusions, and the Authorities seek further discussions with the Applicant to gain clarity on a number of aspects of the construction phase air quality assessments.
- 13.3 The Authorities consider that additional appropriate control measures are needed to mitigate the negative construction phase impacts on air quality, including:
- Provision of a Dust Management Plan,
 - Provision of an Odour Management Plan
 - Effective monitoring and control systems within the Construction Traffic Management Plan (CMTP) and Construction Worker Transport Management Plan (CWTMP) to ensure compliance,
 - A commitment to adopt the London Low Emission standards for construction plant and vehicles (on-road and NRMM) as part of the construction mitigation plan.
- 13.4 Air quality in the operational phase has been considered for the Proposed Development for airport related traffic emissions, aviation emissions, combustion plant, changes to the Central Area Recycling Enclosure (CARE) facility and operational odour emissions.
- 13.5 The overlap between construction and operational phases has also been considered by the Applicant for air quality, but this is an area that further information is being sought to understand the suitability of the approach taken.
- 13.6 All assessments undertaken for the different operational activities were considered by the applicant to be not significant for air quality, and consequently the Applicant concludes no additional mitigation is required other than those to address the surface access and greenhouse gases.
- 13.7 The Authorities consider that the adverse impacts on human health as a result of increased emissions of no-threshold pollutants have not been adequately addressed by the Applicant, and that the lack of additional mitigation is not in compliance with national and local policy and guidance (Air Quality and Emissions Mitigation Guidance for Sussex).

- 13.8 The Authorities are seeking further information from the Applicant to gain clarity on a number of aspects of the operational phase air quality assessments, such as exact locations affected by increases in operational traffic across the road network and lack of AQ modelling for 2047 (full capacity).
- 13.9 The Authorities consider that additional measures are required to ensure that the Applicant mitigates both the impact of construction and operational phases of the Project.
- 13.10 The Authorities consider that additional appropriate control measures are needed to mitigate the negative operational phase impacts on air quality, including:
- Provision of an operational Air Quality Action Plan (AQAP),
 - Operational Monitoring and Funding
 - Revised surface access commitments and controlled growth
 - Operational Odour Management and Monitoring Plan.
 - Ultrafine particulate (UFPs) monitoring study
 - Amendments to Article 48 of the draft DCO, defence to proceedings in respect of statutory nuisance. Please see Appendix M for the Authorities' proposed amendments to Article 48

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
13.1.1.A	Dust and Particulate Matter	Construction	Negative	<p>Dust Management Plan (or a draft DMP) based on IAQM best practice guidance to be provided within the CoCP as a key control document and secured by Requirement (Requirement 7) in the Draft DCO.</p> <p>The draft DMP to be made available for the examination phase and be approved by the LPA.</p> <p>DMP should include (but not limited to):</p> <ul style="list-style-type: none"> • Baseline monitoring. • Locations of highest dust risk, • Compliance monitoring methods. • Monitoring locations. • Dust thresholds for trigger abatement. • Procedures for recording, reviewing monitoring results and adjusting mitigation. • Data sharing and reporting with LPA. • Complaints and resolution process. 	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.231, 5.234 and 5.236 NPPF 180

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<ul style="list-style-type: none"> • Communications and Engagement Plan sharing with local authorities. • Proposed dust mitigation measures. 	
13.1.B	Odour from putrescible grounds conditions	Construction	Negative	<p>Odour Management Plan (or a draft OMP) based on best practice to be secured within the CoCP (Requirement 7 draft DCO). The draft OMP to be made available for the examination phase and be approved by the LPA. OMP should include (but not limited to):</p> <ul style="list-style-type: none"> • Procedures for recording, reviewing monitoring results and adjusting mitigation. • Data sharing and reporting with LPA. • Complaints and resolution process • Communications and Engagement Plan sharing with local authorities. 	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.231, 5.234 and 5.236 NPPF 180

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<ul style="list-style-type: none"> Proposed odour mitigation measures. 	
13.1.1.C	Construction Traffic Emissions	Construction	Negative	<p>Construction Traffic Management Plan (CTMP) and Construction Worker Transport Management Plan (CWTMP) –Amendments within the CoCP (Requirement 12 draft DCO) to require mechanisms for monitoring and control, and criteria for use of contingency construction routes. Amendments to the CTMP and CWTMP be approved by the LPA</p> <p>Mitigation may also be secured through a s106 agreement to support Crawley Borough Council’s air quality monitoring responsibilities for LAQM Further details 13.1.G(Operational Monitoring and Funding).</p>	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.33, 5.35,5.36, 5.37 5.40, 5.41, 5.42 NPPF 192
13.1.1.	Non-Road Mobile Machinery	Construction	Negative	<p>CTMP Amendments to the CTMP within the CoCP (Requirement 7 draft DCO) to require compliance with the London Low Emission Zone for construction road</p>	CBC Policy ENV12, EP5, HDC Policy 24,

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
D	(NRMM) Emissions			vehicles, and with the London Non-Road Mobile Machinery standards for NRMM.	Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.40, NPPF 180
13.1.1.E	Airport Related Emissions including: traffic, car parking, CARE facility, combustion plant and aviation emissions.	Operational	Negative	<p>Air Quality Action Plan (AQAP) is required to collate all the proposed air quality mitigation measures together, identify any further opportunities to maximise air quality benefits and avoid any unintended consequences.</p> <p>A draft AQAP to be provided and secured by a s.106 agreement, or by Requirement as a control document in the Draft DCO.</p> <p>The AQAP to be a framework for measures to offset the damage cost associated with the operational impacts of the Project.</p>	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.35, 5.36, 5.37 and 5.41 NPPF 180, 192

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>The draft AQAP to include (but not limited to):</p> <ul style="list-style-type: none"> • Damage cost calculation at that date • Identify and cost measures which are accounted for (embedded mitigation) in the assessments for air quality, health and economics • Proposed mitigation to meet damage cost • A Key focus of the AQAP to be on traffic emissions and improving air quality both within AQMAs and public exposure • Mitigation costs, performance indicators and delivery timescales • Ongoing engagement requirements for monitoring and reporting to the local authorities. 	

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<ul style="list-style-type: none"> Authorities to approve the document 	
13.1.F	Air Quality and Emissions Mitigation Guidance for Sussex (Sussex Guidance)	Operational	Negative	<p>Sussex Guidance - A package of additional mitigation measures to address local air quality impacts, proportionate to damage costs of the scheme to be provided in accordance with the Sussex Guidance.</p> <p>The proposed mitigation to be provided through an Air Quality Action Plan secured by a s.106 agreement, or a control document by Requirement in the Draft DCO.</p> <p>The AQAP to provide a range of air quality mitigation measures to meet damage cost associated with the Project as outline in 13.1.E above.</p>	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.35, 5.36, 5.37 and 5.42 NPPF 180
13.1.G	Operational Monitoring and Funding	Operational	Negative	Additional mitigation to provide financial support for monitoring costs to Crawley Borough Council similar to the s106 obligation given to Reigate Council (RBBC).	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>The details of s106 to be agreed with the Applicant but will include:</p> <p>Annual Running Costs</p> <ul style="list-style-type: none"> • Service and Maintenance of AQ Monitoring Instruments • LSO (Local Service Operator) duties • Data management Costs • Electricity running costs • Officer time and reporting <p>Capital Replacement Costs (10 yearly)</p> <ul style="list-style-type: none"> • FIDAS Particulate Monitor (replace 2030,2040, 2050) • NOX analyser (replace 2026 2036, 2046) • Cabinet with aircon 	and MSDC Policy DP29 and SA38 ANPS 5.23, 5.33 NPPF 180, 192 LAQM Technical Guidance TG22 (Defra)
13.1.H	Controlled Growth and Surface Access	Operational	Negative	<p>Additional mitigation within the SAC requiring the Applicant to:</p> <ul style="list-style-type: none"> • Achieve mode share commitments by the 	CBC Policy ENV12, EP5, HDC Policy 24,

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	Commitments SACs			<p>commencement of dual runway operations.</p> <ul style="list-style-type: none"> Adopt a controlled growth approach similar to that proposed at Luton Airport which would restrict growth until mode share targets for surface access are met. <p>The additional mitigation measures to be include in a revised SAC document and secured by Requirement 20 in draft DCO.</p> <p>Amendments to the SAC to be approved by the LPA and Highways authority</p>	Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.5, 5.29 NPPF 180
13.1.1	CARE Facility Emissions	Operational	Negative	<p>Emissions from the CARE facility will be controlled by environmental permit. Crawley Borough Council requests further information on what steps have been taken to address issues with the existing odour control technology to ensure odour issues will not be a factor in the new facility.</p>	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
13.1.1.J	Operational Odour Emissions	Operational	Negative	<p>Odour Management and Monitoring Plan (OMMP) Additional measures required to ensure management of aviation fuel and other odour emissions, which has historically been a cause of concern in local communities. To be provided through an Operational Odour Management and Monitoring Plan. To be secured by Requirement as a control document in the Draft DCO.</p> <p>An OMMP or a draft OMMP based on best practice to include (but not limited to):</p> <ul style="list-style-type: none"> • Procedures for recording, reviewing monitoring results and adjusting mitigation. • Data sharing and reporting with LPA. • Complaints and resolution process 	CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.35, 5.36, 5.37 NPPF 180

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<ul style="list-style-type: none"> • Communications and Engagement Plan sharing with local authorities. • Proposed odour mitigation measures • To be approved by the LPA 	
13.1.1K	Ultrafine particulate Emissions (UFPs)	Operational	Negative	<p>Additional mitigation to fund further studies on aviation derived ultrafine particles in the local area as part of a package of mitigation measures to address the damage costs associated with the Project.</p> <p>Funding to be provided to lead authority (RBBC) and secured by a s.106 agreement</p> <p>Detailed requirements to be provided by lead authority Reigate and Banstead Council (see Surrey County Council LIR)</p>	<p>CBC Policy ENV12, EP5, HDC Policy 24, Policy 25 and MSDC Policy DP29 and SA38 ANPS 5.23, 5.33 NPPF 180, 192 LAQM Technical Guidance TG22 (Defra)</p>

Table 13.1: Summary of Impacts – Air Quality					
Reference No	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
13.1.1.L	Defence to Proceedings in respect of Statutory Nuisance (Article 48)	Operational	Negative	Amendments required to Article 48 of the draft DCO to align with precedents e.g. Article 12 of the Sizewell C (nuclear Generating station) Order 2022 and Model provisions 7 of the Infrastructure Planning (Model Provisions) (England and Wales) Order 2009). Please see Appendix M for the Authorities' proposed amendments to article 48	

Policy Context

National Policy Statements

- 13.11 There are two National Policy Statements (NPS) of relevance to the Proposed Development, namely includes the Airports National Policy Statement (ANPS) and the National Networks National Policy Statement (NNNPS). The relevant air quality policies are listed below for each NPS:
- 13.12 The ANPS notes within paragraphs 5.32 – 5.34 what the applicant should include in the assessment of air quality including, within paragraph 5.33 bullet point 3:
- "Any likely significant air quality effects of the scheme, their mitigation and any residual likely significant effects, distinguishing between those applicable to the construction and operation of the scheme including any interaction between construction and operational changes and taking account of the impact that the scheme is likely to cause on air quality arising from road and other surface access traffic."*
- 13.13 Expectations concerning mitigation for air quality are set out in the ANPS within paragraphs 5.35 – 41 for both the construction and operational phases. Within these paragraphs it is noted that plans may be useful to secure measures, that measures are likely to be extensive and that regular reviews of plans should be included, with a focus on mode shift and joint working with stakeholders.
- 13.14 Lastly the ANPS considers how air quality should be considered in the decision-making process, within paragraphs 5.42 – 5.43. These paragraphs note the need to consider impacts over a wide area, compliance with legal requirements and the protection of human health and the wider environment. Further specifics are also provided on where air quality may be particularly relevant, such as AQMAs and designated habitat sites.
- 13.15 The NNNPS sets out very similar considerations for air quality as described within the ANPS focuses on the applicant's assessment (paragraphs 5.6 – 5.9), decision making (paragraphs 5.10 – 5.13) and mitigation (paragraphs 5.14 – 5.15).
- 13.16 Paragraphs 5.3-5.4 of the NNNPS state the potential impact of construction or operation of national network projects (i.e. changes in pollutant emissions) on human health and protected species and habitats. The paragraphs also state that UK legislation sets out Air Quality Objectives (AQOs) and Limit Values (LVs) for the main pollutants of concern to health.
- 13.17 Paragraphs 5.6-5.9 of the NNNPS state that where the impacts of

any project may have a significant effect on air quality, then an assessment must be undertaken as part of the environmental statement. The paragraphs state that the environmental statement should include information on existing air quality conditions, forecasts of air quality at the time of project opening using the Department for Environment, Food and Rural Affairs' (Defra) future national projections of air quality, and describe any significant air quality effects, mitigation and residual effects. In addition, a "judgement on the risks as to whether the project would affect the UK's ability to comply" with the LVs must also be included.

13.18 Paragraph 5.12 of the NNNPS states that:

"the Secretary of State (SoS) must give air quality considerations substantial weight where, after taking into account mitigation, a project would lead to a significant air quality impact in relation to EIA and/or where they lead to a deterioration in air quality in a zone/agglomeration."

13.19 Paragraph 5.13 of the NNNPS states that:

"the SoS should refuse consent where, after taking into account mitigation, the air quality impacts of the scheme will result in a zone/agglomeration currently reported as being compliant...becoming non-compliant; or affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported...at the time of the decision."

13.20 Paragraphs 5.14-5.15 of the NNNPS state that mitigation measures should be included to reduce any negative impacts caused by the proposed project. The SoS should then consider whether the proposed mitigation measures are sufficient.

13.21 There is also a draft NNNPS which provides additional detail to that provided with the current NNMPs and also incorporates the concept of nature-based solutions to support mitigation. In addition to the NPSs the other relevant national scale planning policy is the National Planning Policy Framework (NPPF). Air quality is considered an important element of the natural environment within the NPPF. On conserving and enhancing the natural environment, Paragraph 180 states that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by: ...

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 ..."

- 13.22 Air quality in the UK has been managed through the Local Air Quality Management regime using national objectives. Paragraph 192 of the NPPF states that:

"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."

- 13.23 Also, Paragraph 109 of the NPPF states the following:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health".

- 13.24 The above NPPF policies make it clear that opportunities for improvement to air quality should be sought through the planning process whether or not significant air quality effects or compliance risks with EU LVs are predicted.

Local Plan Policy

Crawley Borough Local Plans 2015 – 2030

- 13.25 The Crawley Borough Local Plan 2015-2030 outlines Crawley Borough Council's approach to developments in the borough until 2030. This will be superseded by the Crawley Borough Local Plan 2023-2040 once adopted.

- 13.26 In the 2015-2030 document policy ENV12 describes the Council's environmental policy on air quality and is outlined below:

"Development proposals that do not result in a material negative impact on air quality will normally be permitted. In determining

whether or not a development will have a material negative air quality impact, the local planning authority will refer to the criteria set out in Air Quality and Emissions Mitigation Guidance for Sussex. To ensure that development is appropriate in air quality terms:

a) Where identified in Air Quality and Emissions Mitigation Guidance for Sussex, development will be required to be supported by evidence detailing the air quality impact of the proposed development, and outlining an appropriate mitigation strategy that will be implemented to ensure that air quality is not materially worsened, and is where possible improved. This may be in the form of an Emissions Statement, Mitigation Statement, and/or Air Quality Statement, as appropriate.

b) Development proposals within a declared Air Quality Management Area, will demonstrate how mitigation measures will be incorporated that help address objectives identified in the relevant Air Quality Action Plan.

c) Development that may reasonably be considered to impact upon air quality beyond the borough boundary, will be expected to contribute towards achieving a reduction in levels of air pollution, and should demonstrate how this will be achieved through an Air Quality Assessment.

In all relevant cases, development that cannot demonstrate how material negative air quality impacts will be mitigated may be refused."

Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

13.27 This policy will be replaced with policy EP5 in the 2023-2040 Local Plan which states that:

"Planning permission will only be granted where it can be demonstrated that the development:

- i. has appropriately factored air quality into the location, design and operation of development, and where necessary, provided appropriate mitigation; and*
- ii. will not result in a deterioration of air quality within an AQMA; and*
- iii. will not lead to the declaration of a new AQMA; and*
- iv. does not conflict with the requirements of an air quality action plan; and*
- v. will not result in an increase exposure within an AQMA"*

Where amenity sensitive development is proposed within 800 metres of a Waste Water Treatment Works an Odour Impact Assessment will be required as part of the planning application. This should confirm that either there will be no adverse amenity impact for occupiers of the proposed development or demonstrate

how appropriate mitigation will be provided to ensure the development is appropriate in amenity terms.

Development that includes industrial and commercial land uses must submit appropriate detailed evidence to enable assessment of potential significant adverse air quality impacts. Mitigation measures should be included in proposals where evidence suggests a likely significant adverse effect.

Horsham District Planning Framework 2015

- 13.28 Horsham District Council's Planning Framework acts as a Local Plan. This plan is in effect until 2031 and excludes the South Downs National Park area.
- 13.29 In the plan, policy 24 (Strategic Policy: Environmental Protection) outlines the Council's plans for developments to follow "*to minimise exposure to and the emission of pollutants including noise, odour, air and light pollution*". It also states that developments should "*contribute to the implementation of local Air Quality Action Plans and do not conflict with its objectives*" and "*maintain or reduce the number of people exposed to poor air quality including odour. Consideration should be given to development that will result in new public exposure, particularly where vulnerable people (e.g. the elderly, care homes or schools) would be exposed to the areas of poor air quality*"

Mid Sussex District Council Site Allocations Development Plan Document (2022)

- 13.30 The Site Allocations DPD was adopted in 2022. It allocates land for housing and employment uses to meet the District Plan (2018) housing and employment land requirements. In addition, the plan contains six development management policies.
- 13.31 Policy SA38 Air Quality replaces adopted District Plan policy DP29 in relation to air quality. The policy states:
- "The Council will require applicants to demonstrate that there is not unacceptable impact on air quality. The development should minimise any air quality impacts, including cumulative impacts from committed developments, both during the construction process and lifetime of the completed development, either through a redesign of the development proposal or, where this is not possible or sufficient, through appropriate mitigation"*

Other Relevant Local Policy

- 13.32 There is no specific supplementary planning guidance (SPG) or

supplementary planning documents (SPD) for air quality. However, there is air quality guidance that has been developed by the Sussex-Air Partnership⁴ that has been adopted by CBC, HDC and MSDC providing guidance for developers, including an approach for calculate damage costs from transport emissions associated with their developments, which determines the level of mitigation needed to offset the human health impacts and improve local air quality.

Construction Phase - Impacts

Positive

- 13.33 There are no anticipated positive impacts on air quality during construction under the existing proposals.

Neutral

- 13.34 There are no anticipated Neutral impacts on air quality during construction under the existing proposals.

Negative

- 13.35 The main negative impacts in the construction phase are the potential nuisance and amenity effects of dust and odour from construction site activities on neighbouring communities and businesses, and emissions from construction traffic, NRMM and other construction plant such as diesel or petrol generators.
- 13.36 The following paragraphs highlight the specific areas where the Authorities have concerns about the negative impacts of the Project during the construction phase.

Applicant's Approach to the Assessment

Construction Dust and Odour

- 13.37 The construction phase of the Proposed Development has been assessed for construction dust and particulate matter, odour, and jettisoning of fuel from aircraft (ES Chapter 13, para13.10, APP-038).
- 13.38 Construction dust and particulate matter were assessed following a qualitative risk-based approach from the Institute of Air Quality Management (IAQM). Odour was scoped out of further assessment with control measures proposed via the Code of Construction Practice (CoCP) if required. The jettisoning of fuel from aircraft was

also scoped out as it was considered limited environmental risks. All assessments undertaken for the different construction activities were considered by the Applicant to be not significant for air quality.

- 13.39 The Authorities have concerns regarding the impact of dust, particulates and odour during the construction phase which has the potential for widespread and long-term effects, particularly for residents and businesses located close to the perimeter boundary of the airport. The most impacted will be those at locations in Crawley and Horsham within 350m of surface access construction areas, airfield construction areas and construction compounds, but also those along construction traffic routes due to the track out of mud on to the road network. This includes the A23 London Road, B2036 Balcombe Road, Povey Cross Road, Charlwood Road, Horley Road and the M23.

Construction Dust

- 13.40 A DMP or outline DMP has not been provided, although the provision of one at a later stage is promised in ES Appendix 13.8.1 (para2.2, APP-161) and within the Code of Construction Practice ES Appendix 5.3.2 (para2.2.7, APP-082).
- 13.41 Appendix 13.8.1 states that the DMP:
- *may* include measures to control other emissions,
 - will set out how works will be carried out, and
 - will provide details of monitoring locations.
- 13.42 However, without a DMP at the examination stage, the Authorities cannot determine if all necessary mitigation will be in place, and there is no information on the locations for monitoring as required by ANPS (5.231, 5.234 and 5.236).
- 13.43 ANPS 5.236 requires the Applicant to provide "sufficient information to show that any necessary mitigation will be put into place", and ANPS 5.234 requires that the assessment should describe amongst other things "premises or locations that may be affected by the emissions", and "measures to be employed in preventing or mitigating the emissions".
- 13.44 Although the Applicant states in CoCP (para 5.8.2, APP-082) that monitoring will follow best practice guidance as defined by the

IAQM guidance 2018⁷ there is only a commitment to monitoring at high-risk sites, whereas guidance recommends monitoring and setting dust action levels at sites (independent of the risk) to provides an “alert” for when additional abatement controls are needed (IAQM 2018 s.4.3 and 4.38).

- 13.45 CoCP Paragraph 4.12.7 identifies that a complaints procedure will be established but does not reference the sharing of complaints and their resolution with local authorities. This measure is also identified within the site management air quality section (para 5.8.2). It is however noted that compliant information will only be made available to the local authorities when asked.
- 13.46 CoCP paragraph 4.12.1 identifies that a Communications and Engagement Management Plan will be prepared and that this will be an internal GAL document. This document should be shared with the local authorities. The need to have this type of plan is also identified as a general control measure for dust in paragraph 5.8.2, reinforcing this cannot just be a GAL internal document.
- 13.47 Further information in the form of a draft DMP is therefore needed to demonstrate how the likely significant effects on amenity and nuisance from emissions of dust will be fully mitigated, including monitoring and locations. This is particularly important given the availability of the defence of statutory authority against nuisance claims (ANPS 5.231).

Construction Odour

- 13.48 The application lists areas of potential contamination which have the potential to produce odours in ES Chapter 10: Geology and Ground conditions (APP-035). The Applicant states that if any potential sources of odour are identified during the works, suitable mitigation will be implemented via the CoCP (para 5.8.3, APP-082) using best practice, but without specifying what this is.
- 13.49 Only one specific measure to mitigate odour is listed in the CoCP (sources covered to minimise release of odour). No odour management plan (OMP) has been provided in the application, with the Applicant stating that an OMP would be developed *where*

⁷ Guidance on Monitoring in the Vicinity of Demolition and Construction Sites Institute of Air Quality Management -IAQM October 2018 (version 1.1)

needed to identify further mitigation *if required*. It is therefore unclear how well secured odour mitigation is during the construction phase. The Authorities require further detail within the CoCP on how odour issues will be mitigated should these occur during construction.

Construction Dust and Odour - Required Mitigation

13.50 Additional mitigation is required at the construction phase to address the impacts of construction dust and odour.

Construction Dust and Odour - Requirements and Obligations

- 13.51 A DMP (or a draft DMP) should be provided as a key control document within the CoCP as a Requirement to provide additional confidence in the control measures and monitoring for the construction phase.
- 13.52 The Authorities are not aware of any reason why a draft DMP cannot be produced at this stage given that construction compound locations (para 7.1.7, fig5, APP-079), dust risk assessment (AQ Results Part 2, APP-163) and construction traffic routes (Outline CTMP, APP-085) have all been provided. The Authorities would therefore expect a draft of the DMP to be provided prior to the DCO hearing to permit full scrutiny, and to allow agreement or amendment as part of the examination.
- 13.53 The provision of a draft DMP, based on IAQM best practice guidance, is required to achieve high levels of dust control. The DMP should include (but not limited to) the following provisions:
- A period of baseline monitoring prior to works commencing.
 - Identify the locations of highest dust risk,
 - Monitoring to ensure compliance with relevant air quality standards and targets.
 - Specify monitoring methods.
 - Identify proposed monitoring locations.
 - Specify dust thresholds for triggering additional abatement.
 - Outline procedures for recording and reviewing monitoring results and adjusting dust mitigation in response to elevated dust emissions.
 - Outline data sharing and reporting process with local authorities.
 - Outline complaints and resolution process with local authorities

- Communications and Engagement Management Plan sharing with local authorities.
 - Proposed dust mitigation measures.
 - DMP to be approved by the LPA
- 13.54 An Odour Management Plan (or a draft OMP) should be provided within the CoCP as a Requirement to provide additional confidence in the control measures and monitoring for the construction phase. This is particularly important given the availability of the defence of statutory authority against nuisance claims (ANPS 5.231).

Construction Traffic, Plant and Machinery

- 13.55 The construction phase of the Proposed Development has been considered for construction traffic and non-road mobile machinery (NRMM). The assessment of both construction traffic and NRMM was undertaken using detailed air quality modelling techniques within ADMS-Airport. All the assessments undertaken for the different construction activities were considered not significant for air quality.
- 13.56 The construction phase of the Project will take place over 14 years, between 2024 and 2038 and generate substantial levels of additional road traffic associated with the construction traffic itself (HGVs and LGVs) as well as the construction workforce traffic. For example, the Applicant has identified that for the peak busiest month (Dec 2026) for the airfield construction works, there is expected to be over 38,000 construction vehicles accessing the site from the local road network, comprising 22,000 construction vehicles and over 16,000 construction workforce vehicles.
- 13.57 The Authorities have concerns regarding the levels of additional traffic and the sequencing of the airfield construction works and highways improvement works. The fully operational northern runway is predicted for 2029, but the associated highways improvements for surface access are planned to start the same year and not completed until 2032. Not only is this likely to cause congestion and delays along the road network as additional passenger demand struggles with the existing highways provision, but the combined effect of increased passenger traffic overlapping with the ongoing construction traffic will result in rerouting or redistribution of traffic across the local road network leading to a deterioration in air quality on the affected roads, including the risk of localised adverse air quality impacts with Air Quality management Areas (AQMAs).

Construction Traffic

- 13.58 The assessment of construction traffic was undertaken using detailed air quality modelling techniques within ADMS-Airport. The

overlap between construction and operational phases has also been considered and the Applicant considers that construction traffic air quality impacts at all locations are not significant.

- 13.59 The Authorities, however, seek further information to understand the suitability of the approach taken in this assessment and whether the combined effects of construction and operational traffic, as outlined in Para 13.5.24 of the ES, have been adequately assessed. In particular, it is unclear if potential air quality impacts across the local road network as a result of re-routed traffic has been taken into account.
- 13.60 The unintended consequences of congestion and delay associated with highway works during the construction phase will inevitably displace traffic along the local and strategic road network. The applicant would have no control over the pattern of displacement, however local communities will suffer much of the impact of this additional traffic.
- 13.61 The details of exactly which locations are affected by increases in traffic due to the construction, and so subject to a deterioration in air quality, is unclear as the affected road network for the construction phases has not been provided within the application.
- 13.62 Crawley Borough Council has specific concerns regarding the impact of construction traffic on air quality within its AQMA. The assessment of air quality impacts from the Project assumed construction traffic will not use routes through Crawley to access the airport, concluding there will be minimum impact on the AQMA.
- 13.63 However, section 6.3 of the outline CMTP(APP-085) identifies the route through Crawley's AQMA as a contingency access route to Gatwick. This is because it is the only alternative route off the M23 to the airport. Construction traffic from the M23 would re-route from J10, through the centre of the AQMA via the A2011 Crawley Avenue to the Hazelwick roundabout. In addition to the risks from construction traffic along this route, other non-construction traffic is also likely to use it as an alternative to avoid disruption associated with surface access works affecting access from Junction 9 of M23.
- 13.64 The Construction Traffic Management Plan (CMTP) and the Construction Worker Transport Management Plan (CWTMP) are intended to ensure construction traffic adheres to designated routes; however, little information is provided on the monitoring of the effectiveness of the CTMP and CWTMP. In particular, section 6.5 (Restrictions and Monitoring, APP-085) of the outline CTMP provides no detail or mechanism for how compliance with the plan will be monitored, or how non-compliance will be addressed.
- 13.65 These areas will be affected by increases in nitrogen dioxide (NO₂) and particulate concentrations and may result in local pollution

hotspots. This places an extra burden on the local authority to monitor and assess these locations in line with its statutory responsibilities under the LAQM regime. The Authorities, therefore, consider the Applicant should take steps to mitigate, and where possible improve, air quality in affected locations in line with the NPPF and local planning policies.

Construction Plant and Machinery

- 13.66 The assessment of NRMM was undertaken using air quality modelling techniques within ADMS-Airport as part of the assessment of construction impacts. The Applicant considers that construction air quality impacts are not significant.
- 13.67 NRMM and diesel/petrol generators associated with construction sites are responsible for significant levels of exhaust emissions and can contribute to local air quality impacts for NOx and PM.
- 13.68 The Applicant states in its CoCP that low emission plant would be *encouraged and used where practicable*. However, in keeping with the Applicant's responsibility to mitigate and improve air quality where possible in accordance with NPPF 180, the Authorities require a firm commitment to the use of low emission construction plant (and vehicles), aligning with the more stringent controls that are in place on construction sites in Greater London.

Construction Traffic, Plant and Machinery - Required Mitigation

- 13.69 A CTMP and CWTMP have been provided with the application. These are welcomed to address the impacts of construction traffic, but further information and agreement is needed on the mechanisms for monitoring and control. Additional mitigation is required to address the impacts of construction plant and machinery, and odour.
- 13.70 The Authorities are also seeking changes to measures that are only listed as potential measures, and how these can be adopted as definite mitigation measures (e.g. Delivery Management System, wheel washing and low emission buses) and how construction vehicles (on-road and NRMM) can meet low emission standards aligned with Greater London standards.

Construction Traffic, Plant and Machinery - Requirements and Obligations

- 13.71 Amendments within the Code of Construction Practice (Requirement 7 draft DCO) are needed to require compliance with the London Low Emission Zone for construction road vehicles, and with the London

Non-Road Mobile Machinery standards for NRMM.

- 13.72 Requirement 12 of the draft DCO(APP-004) requires approval of the CMTP by the highway authority, following consultation with the planning authority. The Authorities require further clarification and agreement on how compliance with the plan will be monitored, and what criteria will lead to the contingency construction routes being used.
- 13.73 Mitigation may also be secured through a s106 agreement to support Crawley Borough Council's air quality monitoring responsibilities for Local Air Quality Management (LAQM). Further details are provided in Operational Monitoring and Funding section below (para 13.104 -13.109).

Operational phase - impacts

Positive

- 13.74 There are no anticipated positive impacts on air quality during operation under the existing proposals. The development of an AQAP would provide the opportunity to not only mitigate air quality but look at opportunities to improve air quality.

Neutral

- 13.75 There are no anticipated neutral impacts on air quality during operation under the existing proposals. The development of an AQAP would provide the opportunity to not only mitigate air quality but look at opportunities to improve air quality.

Negative

- 13.76 The main negative impacts in the operational phase of the expanded airport are the adverse health effects from increased emissions of no-threshold pollutants (Nitrogen dioxide and Particulates). These emission sources include aviation emissions, airport-related traffic emissions, combustion plant emissions, engine testing and odour emissions.
- 13.77 The following paragraphs highlight the specific areas where the Authorities have concerns about the negative impacts of the Project during the operational phase.

Applicant's Approach to the Assessment

Air Quality Action Plan (Operational Mitigation)

- 13.78 Air quality in the operational phase has been considered for the Proposed Development for traffic, car parking, the CARE facility, aviation emissions combustion plant, and operational odour emissions. All the above operational activities were modelled using the ADMS-Airports detailed modelling software, with the exception of the CARE facility which was modelled separately using ADMS. Operational odour emissions were considered qualitatively by the applicant using a source pathway receptor model based on IAQM Guidance on the assessment of odour for planning (2018).
- 13.79 All assessments undertaken for the different operational activities were considered by the Applicant to be not significant for air quality. Consequently, the Applicant concludes that no additional mitigation is required (ES Chapter 13, para 13.10.40, APP-038) other than those measures set out in Table 13.9.1 (Mitigation Measures, APP-038). These measures are for the control of construction emissions (dust, traffic and equipment), Surface Access Commitments (SAC), Carbon Action Plan (CAP) and odour management.
- 13.80 Despite acknowledging that, due to the no-threshold impacts of pollutants such as NO₂, PM₁₀ and PM_{2.5} (PHE,2019), there are health benefits to be gained from improving air quality even at concentrations below the standards (para 13.5.72, APP-038 and para 18.8.13 APP-043), the Applicant provides no operational air quality action plan (AQAP). Instead, operational air quality will be addressed through a Carbon Action Plan (CAP, APP-091) and measures set out in Surface Access Commitments (SAC, APP-090). This approach differs from discussions during 2 years of consultation where a draft AQAP was provided in the air quality TWG (21.10.22) and an AQAP was listed in item 19 of Schedule 2 (Requirements) of the draft DCO (28.04.23).
- 13.81 The Authorities consider that this approach is not consistent with national policy guidance NPPF, para 180 which sets out the need for development to help improve air quality *wherever possible*, and para 108 which says that development proposals should include appropriate opportunities for mitigating any adverse effects and for achieving net environmental gains.
- 13.82 The CAP and SAC do not specifically or adequately target air quality mitigation measures, and both lack the means to measure short-term exposure or provide monitoring to check compliance with air quality standards. Neither do they provide an indication of the reduction their interventions are likely to deliver either in terms of emissions or concentrations. It is therefore unclear which measures are intended to benefit what pollutants.
- 13.83 In addition, mode share commitments for operational traffic delivered through the SAC have already been accounted for in the assessment (para 7.1.4 APP-258 and para 13.9.4 APP-038), so they do not represent any additional mitigation outside of the scheme

design to address the damage costs from the additional transport emissions generated by the Project.

- 13.84 Emissions inventories (to 2047) supplied by the Applicant indicate that airport emissions will continue to increase, driven largely by the increase in aviation emissions, whilst simultaneously, air quality standards are likely to tighten following revisions of the NO₂ limits by WHO⁸ and the EU⁹.
- 13.85 The Authorities have concerns that the health impacts from emissions as a result of the Project have not been adequately addressed in a way that is consistent with the principles of the Air Quality and Emissions Mitigation Guidance for Sussex (see sections 13.90-13.103 below), and that the Applicant has not met its responsibility to mitigate and improve air quality wherever possible in line with the NPPF (para 180).

AQAP (Operational Mitigation) - Required Mitigation

- 13.86 Additional mitigation is required for the operational phase to address the impacts of airport related emissions associated with the Project for the benefit of communities and public health.
- 13.87 The Authorities consider that a separate operational air quality management plan (AQAP) which clearly sets out a range of mitigation measures to specifically address airport related emissions during the operational phase of the Project is required, in line with the principles of local planning policies and guidance to improve air quality, and ANPS 5.36, 5.37 and 5.41 with regards to mitigation, including measures to improve air quality in pollution hotspots beyond the immediate locality of the scheme.

AQAP (Operational Mitigation) - Requirements and Obligations

- 13.88 A draft Air Quality Action Plan should be provided during the examination for the authorities to consider. It should have the status of a control document.
- 13.89 The AQAP to be a framework to ensure that the damage cost associated with the operational impacts of the Project can be mitigated. The draft should include (but not be limited to):
- Damage cost calculation at that date.

⁸ WHO global air quality guidelines 2021

⁹ Directive of the European Parliament and of the Council on ambient air quality and cleaner air for Europe, 2022

- Identify and cost measures which are accounted for (embedded mitigation) in the assessments for air quality, health and economics.
- Proposed mitigation to meet the damage cost.
- A Key focus of the AQAP will be on traffic emissions and improving air quality both within AQMAs and outside AQMAs, at locations of public exposure and at designated ecosystem sites.
- Indicative cost of mitigation, performance indicators and delivery timescales.
- Ongoing engagement requirements should also be incorporated in the AQAP, including setting out how changes in air quality will be monitored. evaluated and reported to local authorities.
- The AQAP to be approved by the LPA.

Air Quality and Emissions Mitigation Guidance for Sussex (Sussex Guidance)

13.90 The impacts associated with air pollution are well known and range from productivity losses due to sickness and costs to the NHS, to increased mortality¹⁰¹¹¹². The Sussex Authorities, along with many local authorities across the UK, have concerns about the air pollution impacts from major development, particularly from no-threshold pollutants where there is no safe level such as NO₂, and Particulates (PM₁₀ and PM_{2.5})

13.91 The air quality impact of development is often not addressed where an air quality assessment shows negligible pollution concentrations as a result of the scheme, and air quality limit values are met. However, increased emissions can contribute to adverse impacts on human health even where air quality standards are met (PHE, 2019)¹³. In order to take emissions impacts into account in policy and scheme appraisal, the UK government has developed methodologies to assign monetary values to impacts from development for damage cost to human health ([Defra damage cost guidance](#)).

13.92 Values for the human and environmental health impacts of air pollution are now routinely used as part of cost-benefit calculations across the UK, as well as in the EU and USA, and the UK approach

¹⁰ Air Quality: A Briefing for Directors of Public Health, 2017

¹¹ PHE - Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

¹² The Economic Cost of air pollution: Evidence from Europe 2020

¹³ PHE - Review of interventions to improve outdoor air quality and public health, 2019

falls within HMT's [Green Book](#) project appraisal methodology and Defra damage cost guidance.

- 13.93 The Air Quality and Emissions Mitigation Guidance for Sussex (Sussex Guidance) is based on Defra's damage cost guidance methodology and is included in local planning policy across the County (eg ENV12 - Crawley Local Plan 2015-2030). The policy requires developers to assess the emissions impact and damage costs of major development with reference to the Sussex Guidance. Where additional transport emissions are identified, the developer provides a package of mitigation measures in line with the value of the damage costs associated with the Scheme. The practice is used across the country and is well established in London (London Plan – Policy SI1).
- 13.94 In having regard to the Sussex Guidance, the Applicant has carried out an assessment of the air quality health costs for the Project based on the TAG: Transport Analysis Guidance (this methodology was agreed at the Topic Working Group as a suitable alternative to the HMT Green Book methodologies: Impact Pathway or Damage Costs). The calculated air quality damage costs of the Project were calculated to be £83.5m (ES Needs Case Appendix1, Table 7.2.1, APP-251).
- 13.95 The Applicant concludes that the economic benefits to the wider UK economy offset the environmental costs (para 9.1.1, APP-251) and as such does not propose a package of additional mitigation is needed to meet the predicted damage costs, and no air quality action plan (AQAP) is provided in the DCO.
- 13.96 Although ES Chapter 13 (APP-038) does sets out a limited range of measures in Table 13.9.1(Mitigation Measures), many of these measures are either minimum policy requirements (such as dust control and Greenhouse targets) or embedded in the design and therefore already accounted for in the modelling (such as surface access mode share). Consequently, the £83.5m damage costs represent those health impacts that arise after the embedded mitigation has been considered. The approach taken by the Applicant is not consistent with the principles of the Sussex Guidance, which is to address how emissions from the development can be offset at a local level proportionate to the value of the damage to health. This principle is also central to Defra's damage cost guidance and the [UK Air Quality Strategy](#), which acknowledges that:

"improving air quality has direct, proven economic benefits, even when the up-front cost of intervention is high".

- 13.97 The strategy also encourages local authorities to:

"robustly assess the monetised benefits of air quality interventions".

13.98 The Applicant also states that no additional mitigation to offset the health impacts of these monetised emissions is justified because it considers there is no requirement for doing so under the ANPS and NNNPS.

13.99 However, the Authorities consider that, in addition to local policy (ENV 12), the ANPS, NNNPS and NPPF provide direction that supports the principles of the Sussex Guidance:

- ANPS para 5.23: recognises that Increased emissions can contribute to adverse impacts on human health.
- ANPS para 5.35, 5.36, 5.37: provides guidance on the need for a wide range of effective measures to improve local air quality.
- NNNPS para 3.3: requires applicants to mitigate environmental impacts in line with the principles of the NPPF and consider reasonable opportunities to deliver environmental and social benefits as part of schemes.
- NPPF para 180: states that Development should, wherever possible, help to improve local air quality.
- NPPF para 192: states that opportunities to improve air quality or mitigate impacts should be identified.

13.100 The Authorities are therefore seeking additional mitigation measures to address local air quality impacts.

Sussex Guidance - Required Mitigation

13.101 Additional mitigation measures to address local air quality impacts, proportionate to the damage costs of the scheme, should be provided in accordance with the Sussex Guidance.

Sussex Guidance - Requirements and Obligations

13.102 The proposed mitigation to be provided through an Air Quality Action Plan should be provided during the Examination for the Authorities to consider. It should have the status of a control document.

13.103 The AQAP to provide a range of air quality mitigation measures to meet damage costs associated with the Project as outlined in para 13.89 above for the AQAP Requirements and Obligations.

Operational Monitoring and Funding – Crawley Borough Council

- 13.104 As part of the Local Air Quality Management process (LAQM) required by the Environment Act 1995, Local authorities in the UK are required to assess air quality in their districts (LAQM Policy Guidance 2022 - PG22). To meet this requirement, Crawley Borough Council has a network of monitoring sites across the borough. Historically, the Council has monitored at residential receptor locations within 1000m of the airport boundary (in accordance with the statutory guidance) using passive monitoring techniques, and a continuous air quality monitoring station (CA2) is sited on the airport boundary measuring NO₂ and Particulates (PM10 and PM2.5).
- 13.105 Despite improvements in air quality, the need for monitoring continues. The UK air quality objectives were adopted over 20 years ago, and revisions are long overdue. A reduction in NO₂ limits is likely in response to the scientific and medical evidence on the effects of ambient air pollutants on health. It is now understood that there is no safe level for nitrogen dioxide and particulates and these so-called no-threshold pollutants require more stringent air quality standards. This is also supported by the recent introduction of tighter NO₂ standards in the EU which has halved the current 40ug/m³ limit to 20ug/m³ (to be achieved by 2030) and the WHO target of 10ug/m³.
- 13.106 By 2038 residential locations in Crawley within 1000m of the airport will still be exposed to levels of NO₂ above the WHO guidelines of 10ug/m³ (and up to 17ug/m³ at residential receptors within 1km of the airport), demonstrating that monitoring exposure close to the airport will need to continue for many years. It is therefore important that we maintain our monitoring network both for assessing air quality in our area and for historical data to show trends. It is also important to carry out continuous monitoring in the vicinity of the airport to provide measurements which are independent of the airport's own studies, and which can provide additional reassurance to residents that predicted improvements in air quality are being met, and where necessary allow model validation for assessment purposes.
- 13.107 Whilst the Applicant has assessed the requirement for air quality monitoring at the operational phase, financial support for Crawley Borough Council's monitoring needs has not been specifically identified. Funding towards its monitoring costs would help the Council meet its responsibilities under LAQM and would be in line with NPPF (para 192) which requires that Planning policies and decisions should sustain and contribute towards compliance with relevant limit values.

Operational Monitoring and Funding (CBC) - Required Mitigation

- 13.108 Additional mitigation is requested to provide financial support for

monitoring costs to Crawley Borough Council similar to the s106 obligation given to Reigate Council (RBBC). The proposals to secure the mitigation are listed in the following sub-section.

Operational Monitoring and Funding (CBC) - Requirements and Obligations

13.109 A Section 106 agreement to secure ongoing support for air quality monitoring for Crawley Borough Council's monitoring station (CA2) located on the airport's eastern perimeter. The details of which are to be agreed with the Applicant, but which will include:

Annual Running Costs

- Service and Maintenance of AQ Monitoring Instruments.
- LSO (Local Service Operator) duties.
- Data management costs.
- Electricity running costs.
- Officer time and reporting.

Capital Replacement Costs (10 yearly)

- FIDAS Particulate Monitor (replace 2030,2040, 2050)
- NOX analyser (replace 2026 2036, 2046)
- Cabinet with aircon

Assessment of Operational Traffic Impacts

13.110 There are a number of clarifications required to understand the Assessment Scenarios sub-section of the chapter ES Chapter 13 (APP-038).

13.111 Paragraph 13.5.23 of the air quality chapter includes a bullet point list of assessment scenarios. This includes scenarios covering 2029 for both the construction and operation of the proposed development.

13.112 Paragraph 13.5.24 provides further detail for the 2029 scenarios, noting there are two assessment scenarios for this year. Additional information is provided in paragraph 13.5.25 which reiterates that there are two separate scenarios for operational and construction situations, due to limitations within the traffic modelling.

13.113 Paragraph 13.5.26 then provides information on a slow fleet transition case (SFT) relating to airline fleet assumptions, referencing 2029 as the first full year of opening, 2032 as an interim year and 2038 a design year. No mention is made in relation to the 2032 scenario that some construction works will still

be ongoing (See ES Appendix 5.3.3: Indicative Construction Sequencing, APP-038).

- 13.114 The concern is that the scenarios assessed in the ES do not provide a realistic worst-case assessment.
- 13.115 Additionally, to help the Council understand what routes are affected by the Proposed Development further information on the study area is required as set out below:
- 13.116 Paragraphs 13.5.5 to 13.5.10 of the ES air quality chapter (APP-038) describe the approach taken to the generation of the air quality study area for both the construction and operational traffic. The approach taken by the applicant is considered appropriate for the study. However, Paragraph 13.5.5 refers to a 'wider study area' beyond the 11km by 10km domain, plus the modelled affected road network (ARN) outside this area and that this is shown on Figure 13.4.1.4.1.1. The ES Air Quality Figures – Parts 1, 2, 3, 4 and 5 (APP-066 to APP-070) have been reviewed and this figure cannot be identified. Currently, figures within Part 3 just show a wider study area domain, not the actual roads meeting the ARN criteria (e.g. Appendix 13.6.1 Figure 2.3.1 APP-159). This figure should be provided to illustrate the affected road network.
- 13.117 No further information on the road traffic air quality study was identified in ES Appendix 13.4.1: Air Quality Assessment Methodology (APP-158). However, reference to the above missing figure is made within this ES Appendix document, suggesting it has been missed in the collation of this ES Appendix.
- 13.118 The limitation of the approach described in Figure 13.4.1.4.1.1 to presenting the ARN in the 'wider study area' may be that it is not possible to distinguish between the construction phase and operational phase ARNs unless this is disaggregated on the figure, which the text reviewed to date suggest it is not.
- 13.119 The lack of clear study area information makes it very difficult to understand the changes in traffic during the different scenarios and therefore understand if the effects being presented at receptors are reasonable between the construction and operational phases.
- 13.120 Further information is required to understand the different routes being affected in both the construction and operational phases depending on the information on the above figure once provided. Additionally, it is requested that the roads within the 11km by 10km domain which have met the ARN criteria are also illustrated separately for the construction and operational phases. This will inform our understanding of where the greatest air quality effects should be anticipated in this domain.

Assessment of Operational Traffic Impacts - Required Mitigation

13.121 The following clarifications are required:

- How the use of two parallel scenarios for 2029 provide a realistic worst case to be evaluated. A single scenario reflecting the anticipated operation of the increased capacity at the airport with the surface access construction works is the realistic worst case in 2029.
- How the operational activities and ongoing construction works in 2032 have been assessed.
- How the selection of assessment years and their configuration re operational and construction was made and how this aligns with the requirements of the Airports National Policy Statement including par 5.33, specifically ...including when at full capacity. Including interaction between construction and operational changes...

Surface Access Commitments and Controlled Growth

13.122 The Surface Access Commitments (SAC, APP-090) set out the proposed measures to achieve the mode share targets for the Project, together with the proposed monitoring approach. However, the SAC sets a timescale of meeting these targets 3 years after the second runway becomes operational and proposes no restrictions or penalties if targets are not met.

13.123 The interventions proposed in the SACs for mode share have been included in the transport modelling (para 7.1.4, APP-258) which underpins the air quality assessments for the application. If mode share target are not achieved, or are achieved years after the Project is operational, this will impact air quality, as well as a number of other assessment outcomes that rely on the applicant's proposed mode share targets, including Transport, Sustainability and Carbon.

13.124 Controls are needed to protect the local community from the effects of congestion, overspill parking and air quality impacts if the committed mode share targets are not met by the time dual runway operations commence, or at any stage thereafter given there are no limiting sanctions applied to the commitments.

13.125 Details of exactly which locations will be impacted and so subject to a deterioration in air quality is unclear as the affected road network (air quality study area) has not been provided within the application. However, it is likely that the local road network will see increases in NO₂ and particulate concentrations as a consequence of additional traffic associated with the Project.

13.126 The ANPS (para 5.5) requires sustainable travel to and from the airport is maximised as much as is possible, and local planning policy and NPPF (para 180) calls for developers to improve air quality wherever possible.

13.127 The Authorities are therefore seeking a commitment by the Applicant to meet their mode share targets by the operational date of the development and an agreement to adopt a controlled growth approach similar to that proposed at Luton Airport, to give additional confidence in their control measures and monitoring and reduce the risk of airport growth beyond the surface access commitments.

SAC and Controlled Growth - Required Mitigation

13.128 Additional mitigation is required to address the air quality impacts of airport related emissions associated with the surface access commitments of the Project. The requirements to secure the mitigation are listed in the following sub-section.

SAC and Controlled Growth - Requirements and Obligations

13.129 Additional mitigation within the SAC requiring the Applicant to meet its mode share commitments by the commencement of dual runway operations.

13.130 A revised approach to airport growth to avoid the risk of the Applicant having to address non-compliance with the modal split targets retrospectively. The controlled growth mechanism to be similar to that proposed at Luton Airport which would restrict growth until mode share targets for surface access are met is adopted by the Applicant.

13.131 These additional mitigation measures should be included in a revised Service Access Commitments document and secured by Requirement 20 in the Draft DCO.

Central Area Recycling Enclosure (CARE) Facility and Odour

13.132 Air quality in the operational phase has been considered for the Central Area Recycling Enclosure (CARE) facility, and operational odour emissions. The CARE facility was modelled using ADMS and operational odour emissions were considered qualitatively by the Applicant using a source pathway receptor model based on IAQM Guidance.

13.133 All assessments were considered by the Applicant to be not significant for air quality. Consequently, the Applicant concludes that no additional mitigation is required other than those measures set out in ES Chapter 13 -Table 13.9.1(Mitigation Measures). These measures reference the implementation of "best practice" handling methods for odour management of fuels and waste, but without specifying what this is, or providing any framework for delivery. It is also unclear from the application documents how odour management will be secured for the operational phase, which has historically been a cause of concern in local communities regarding aviation fuels.

13.134 Emissions from the CARE facility will be controlled by environmental permit. However, there have been continuous issues with odour from the current small waste incineration plant (SWIP) at the CARE facility until it was "mothballed" in 2020 as a result of the pandemic and technical issues. The odour was associated mainly with the biomass fuel which produced a sweet-smelling aromatic hydrocarbon odour, and there are concerns by Crawley Borough Council that this may be repeated at the new CARE facility which proposes to double in size.

13.135 The SWIP continues to be non-operational and the Council requests further information on what steps have been taken to address the issues with the existing odour control technology to ensure odour issues will not be a factor in the new facility.

CARE Facility and Odour - Required Mitigation

13.136 Additional mitigation is proposed for the operational odour management and monitoring of airport related odours. It is proposed that this is achieved through an operational Odour Management and Monitoring Plan.

CARE Facility and Odour - Requirements and obligations

13.137 An operational Odour Management and Monitoring Plan to be provided and secured as a control document by Requirement in the Draft DCO. The odour management and monitoring plan would provide a framework to ensure that the best practice techniques committed to by the Applicant can be delivered.

Ultra Fine Particulates (UFPs)

- 13.138 There is growing evidence of the health impacts associated with Ultra-Fine Particulates (UFPs) linked to airport activities¹⁴¹⁵. The LAQM Statutory Guidance document TG22 advises that measurements of UFPs close to airports indicate that aircraft are an important source that can result in elevated concentrations, and Local authorities should be aware of UFPs as a potential pollutant to consider alongside airport operators, when preparing Air Quality Action Plans.
- 13.139 Initial studies¹⁶ carried out around Gatwick in 2019 by Reigate and Banstead Council with Kings College and Imperial College universities, indicated residents to the north of the airport are being exposed to significant levels of UFPs based on WHO guideline values.
- 13.140 The assessment of impacts (Appendix 13.9.1) and source apportionment data shows aircraft emissions of NO_x are forecast to increase by 5.3% from 2018 (base year) to 2038 (with development) at local residential receptors (2047 not modelled). The impact of UFPs is therefore a potential health risk associated with the growth in aviation emissions as a result of the planned development.
- 13.141 The assessment of health effects associated with ultra fine particulates in Section 18.8 of ES (ES Chapter 18: Health and Wellbeing), concluded that the project change is likely to be associated with only a minor adverse health effect. However, the assessment has used PM_{2.5} concentrations as an indicator for the likely scale of change in UFPs, whereas current science (WHO,2021) is clear that UFPs are measured in terms of particle number and size and have very little mass. Using the PM_{2.5} metric (based on mass) to assess UFPs is likely to lead to an underestimation of the impact. The study carried out by RBBC in 2019 into UFPs around Gatwick airport identified high UFP counts at residential receptors close to the airport and concluded that further investigation is required.
- 13.142 Although the Applicant commits to participating in a national aviation study to look at emissions of UFPs at airports (ES Chapter 18: Health and Wellbeing), the Authorities consider it should be supporting a monitoring study of UFP emissions around Gatwick, in line with national policy which recognises that increased emissions can contribute to adverse impacts on human health (ANPS 5.23) and that reasonable opportunities to deliver environmental benefits

¹⁴ Janssen, N.A.H. *et al.* (2019) Research into the health effects of short-term exposure to ultrafine particles in the vicinity of Schiphol Airport. RIVM report 2019-0084
<https://www.rivm.nl/en/bibcite/reference/323511>

¹⁵ Weichenthal, S. *et al.* (2020) Within-City Spatial Variations in Ambient Ultrafine Particle Concentrations and Incident Brain Tumors in Adults. *Epidemiology* v.31(2) pp.177-183.

¹⁶ Ultrafine Particles in the Vicinity of Gatwick: Report by Reigate and Banstead BC. Report to GATCOM Steering Group June 2020

as part of schemes should be considered (NPPF 3.3). Funding for UFP monitoring in the vicinity of the airport also demonstrates support to those Authorities who are required to consider UFPs in their action plans (LAQM Guidance TG22) and is in line with the recommendations of the Government's air quality expert group (AQEG)¹⁷

Ultra Fine Particulates - Required Mitigation

13.143 Additional mitigation is needed from the Applicant to fund further studies on aviation derived ultrafine particles in the local area as part of a package of mitigation measures to address damage costs associated with the project.

Ultra Fine Particulates - Requirements and Obligations

13.144 Funding for further UFP studies to monitoring of ultrafine particles in the local area to be provided and secured by a s.106 agreement. The details of the agreement to be provided by the lead authority (Reigate and Banstead Council – see Surrey County Council LIR).

13.145 Monitoring should be installed at "worst-case" location north of the airport before the proposed development commences to establish a residential baseline.

13.146 Where there is evidence of an ongoing significant UFP impact in the baseline, monitoring should be expanded to include additional sites in Crawley to look at exposure to the south of the airport.

Draft DCO - Defence to Proceedings in respect of Statutory Nuisance (Article 48)

13.147 The Authorities are concerned that Article 48 of the draft DCO (AS-004) goes beyond the precedent set in recent DCOs. This is particularly important given there are still outstanding issues to be agreed relating to the adequacy of the CoCP in providing sufficient control measures and monitoring for impacts which may give rise to statutory nuisance.

13.148 No dust management or odour management plans have been provided and further information and agreement is being sought on monitoring and compliance within the CTMP and CWTMP. Please see Appendix M for the Authorities' proposed amendments to article 48.

Draft DCO (Article 48) - Required Mitigation

¹⁷ AQEG Ultrafine Particles (UFP) in the UK. – July 2018. pp.11, and pp.94 Section 7.1 Para 2

13.149 Amendments to Article 48 as outlined in Appendix M.

Draft DCO (Article 48) - Requirements and Obligations

13.150 Amendments to be secured to Article 48 in the draft DCO (Part 6 - Miscellaneous and General).

14. Noise and Vibration

Summary

- 14.1 This chapter provides information about how the applicant has approached the assessment of noise, the thresholds against which it has determined the potential impacts, the adequacy of the proposed mitigation, the changes that are likely to be experienced and the residual impact. It seeks to describe the effects on the Crawley Borough, Horsham District and Mid Sussex District.
- 14.2 The applicant has considered noise in relation to the source and has identified the following categories:
- Air Noise
 - Ground Noise
 - Fixed Plant
 - Construction Noise
 - Road Traffic Noise
- 14.3 As different forms of noise will be associated with different phases, in line with the rest of this Local Impact Report, noise is considered by reference to construction phase and operational phase. The indicative construction programme shows the main on airport works lasting until 2029. The construction works to the road network to improve surface access arrangements occurs during the latter part of the construction timetable from 2028 to 2032.
- 14.4 The runway will become operational whilst the construction to improve surface access continues.
- 14.5 The effects of air noise will be the most widespread and have the greatest impact. Air noise will affect Horsham District, Crawley Borough and Mid Sussex District under the proposals. The increase in flights during the night period, the increase in overflying and the change to Route 9 (WIZAD) so that it is regularly flown are all of concern. The Applicant must provide additional information as it did not present data for primary and supplementary noise metrics in all years to allow impact and worst case to be fully assessed.
- 14.6 The management and mitigation of air noise is by the noise envelope and the Noise Insulation Scheme. The noise envelope does not provide certainty regarding the expansion and demonstrate how noise benefits of new aircraft technology would be shared with local communities. Consequently, the Noise Envelope does not fulfil the relevant policy requirements and is not considered fit for purpose. The noise insulation scheme is not

considered to be sufficiently generous to protect the communities from the effects of noise. The qualifying criteria need to be extended to lower noise levels to reflect precedent decisions at other airports, existing and updated national policy on mitigation of effects for day and night periods and recent scientific information. The scheme needs to ensure that where noise insulation is fitted it provides for appropriate ventilation and cooling. Notwithstanding residual effects remain in the outdoor areas.

- 14.7 On a localised basis ground noise (from engine taxi-ing, engine ground running, engine tests and use of end around taxiways) will affect parts of Horsham District and Crawley Borough. The Northern Runway provides no benefit in that regard and if anything the expansion of facilities to increase capacity for larger aircraft such as the installation of the End Around Taxiways is likely to increase ground noise exposure for receivers dependent on the mode of operation. For assessment no ground noise contours have been provided and the information that is provided and the subsequent discussion are not consistent. There are no proposals to reduce exposure by using barriers to the South of the airport with reliance being placed on noise insulation in the worst cases. The phasing of works, including the construction of new acoustic barriers and bunds have not been sufficiently considered, to identify potential ground noise impacts on local receptors prior to completion of all works.
- 14.8 Construction Noise will affect parts of Horsham District and Crawley Borough. The greatest risk for adverse effects for Horsham District is with the construction of the taxiways and runways. Different parts of Crawley Borough may be exposed to noise as a result of airfield related construction and the surface access improvements. The Code of Construction Practice ([APP-082](#)) is the main control for this work but it is lacking in detail. Broad reference is made to the British Standard BS 5228 Code of Construction Practice but this only provides examples of good practice and that alone does not constitute the employment of Best Practicable Means (BPM). BPM would include the use of acoustic barriers, enclosures and other techniques. Insulation against construction noise would be offered in limited circumstances but no account is taken of ventilation and cooling requirements.

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
14.1A	Noise emissions from construction activities	C	Negative	Code of Construction Practice – Further information and discussion is required on noise control measures within the CoCP. Acoustic barriers – It is not clear where construction noise barriers are secured	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1B	Induced ground-borne vibration from construction activities	C	Negative	Code of Construction Practice – Further information and discussion is required on vibration control measures within the CoCP.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1C	Changes to road traffic noise levels due to construction traffic	C	Neutral	Construction Traffic Management Plan (CTMP) and Construction Worker Transport Management Plan (CWTMP)	NPSE, CBC Policy ENV11, GAT1 mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1D	Unsustainable impact of noise from various	O	Negative	The Applicant should consider implementing an approach similar to the Green Controlled Growth Framework offered by London Luton Airport. Under this mechanism noise limits and controls are set by the noise envelope and the	ANPS, NPPF, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	sources and on various receptors due to unsustainable growth of airport operations			airports performance is measured and monitored, by an independent group, against a number of noise metrics, controls and limits. Growth at the airport would be contingent on the experience of noise by communities being lower than the baseline, allowing the benefits of new technology to be shared between the airport and communities. Failure to adhere to these agreed limits will result in the cessation of further expansion (i.e. release of aircraft slots) until action has been taken.	MSDC Policy DP29
14.1E	Air noise (1)	O	Negative	Noise Envelope – the Noise Envelope is not considered fit for purpose as it does not align with policy requirements. It is unclear where operational mitigation measures are secured. An Air Noise Management Plan should be provided where all air noise mitigation/ management measures are secured.	ANPS, NPPF, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1F	Air noise (2) Insulation Scheme (day effects)	O	Negative	Noise Insulation Scheme The greatest protection for the daytime effects for the noise insulation scheme is set at 63 dBL _{Aeq} . Qualification for the maximum protection should be extended to 60 dBL _{Aeq} for the maximum extent of the single mode	ANPS, NNPS, NPPF, NPSE

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>contour in the worst case year.</p> <p>The offer of grants in 3dB bands by the applicant is supported, but this needs to commence at the 60dB threshold. The maximum qualifying amount at each level ought to be increased and the qualifying works be extended to include insulation and cooling options (see below).</p> <p>The threshold reflects recent DCO decisions and a range of policies.</p> <p>To ensure that this can be reviewed on publication of new science or policy and modified locally, with agreement of the Local Planning Authority, the criteria should be included as a change to the noise insulation scheme as a controlled document.</p>	
14.1G	Air Noise (3) Control of night effects – based on averaging metrics	O	Negative	<p>The threshold at which the maximum qualifying amount for insulation and cooling should be extended from the 55 L_{Aeq} to 48 L_{Aeq} for night (based on SoNA re-analysis). A tiered grant scheme below this level to the WHO 40 L_{Aeq} is recommended.</p> <p>To ensure that this can be reviewed on publication of new science or policy and modified locally, with agreement of the Local Planning Authority, the criteria should be</p>	NPSE, NPPF, NNPS,

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Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				included as a change to the noise insulation scheme as a controlled document.	
14.1H	Air noise (4) Additional Awakenings	O	Negative	<p>In addition to consideration of the averaging metrics additional awakenings need to be considered as a primary metrics.</p> <p>The maximum level of insulation and home adaptation for cooling needs to be set at one additional awakening for the total impact of all flights not solely those that are said to be from the NRP.</p> <p>There are options to include this within the DCO as a requirement or as an explicit statement within the control document. However, it should not be capable of being removed without proper scrutiny and for that reason it is considered that as minimum this should be as part of a requirement.</p>	NPSE, NPPF, NNPS,
14.1I	Air Noise (5) Secondary health effects including overheating	O	Negative	<p>Any buildings qualifying for noise insulation shall be assessed for overheating. Where there is a risk of overheating then the noise insulation scheme shall include measures to tackle overheating (Crawley BC emerging local plan has an appropriate cooling hierarchy to consider this against but as a retro fit there may be limitations to this).</p> <p>This should be included in a control document.</p>	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
14.1J	Air Noise (6) Management of costs associated with noise insulation scheme and cooling	O	Negative	Where noise insulation or cooling or both are applied to a property, the Applicant shall be responsible for the initial capital, running costs, maintenance costs and future replacement costs. The principles can be included within the DCO as a requirement and the detail referred to within the noise insulation control document and subject to periodic review and revision with approval from LPA.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1K	Air Noise (7) Post installation assessment of noise insulation schemes.	O	Negative	Ongoing scheme to determine the effectiveness, durability and satisfaction with noise insulation, ventilation and including cooling scheme. This is to identify continuous improvement and ensure that all adverse health effects are being avoided. This should be part of the noise insulation scheme improvement feedback loop	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1L	Air Noise (8) Commencement of Noise Insulation Scheme	Pre-commencement	Negative	Article 18 (5) ground noise must be based on modelled predictive ground and air noise effects in worst case year with qualifying criteria referred to above. the option for monitoring should remain.	NPSE

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
14.1M	Noise Envelope Reflect policy objectives .	O	Negative	The noise envelope needs have a clear objective that in accordance with UK policy: “The benefits of future technological improvements with regards to noise will be shared fairly between the industry and local communities”. This needs to be stated explicitly within Article 15 of the DCO or this is inserted into ES Appendix 14.9.7: The Noise Envelope [APP-177]. The proposals for growth and mitigation need to then be reviewed in light of this.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1N	Noise Envelope Use of noise metric contours and areas.	O	Negative	The noise envelope must be based on noise metric contours and the area to provide certainty. To ensure the envelope serves it purpose the noise contours must be for average metrics as stated and event metrics (including one additional awakening, N60 and N65). This can be achieved by requirement in the DCO and an update to the noise envelope document.	NPSE,ANPS, CAP
14.10	Noise Envelope Limit metrics across all periods to	O	Negative	A change is required to the Noise Envelope to include appropriate limits across all times of the year and during periods of the day. It is recommended that this is retained within a requirement within the DCO and restated within the control document.	ANPS, NPSE

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	ensure control.				
14.1P	Noise Envelope Restatement of maximum limits of night noise schemes within noise envelope.	O	Negative	<p>The interface of the noise envelope with other schemes such as the night noise scheme must be clearly stated. The existing values, as they are used in the future predictions, must be adopted and explicitly stated within the noise envelope. The values can reduce with the national scheme but cannot increase.</p> <p>The noise envelope should seek to reduce the overall exposure during the 8 hour night period.</p> <p>Statement as a requirement in the DCO and a change to the noise envelope.</p>	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1Q	Noise Envelope Updating where new evidence.	O	Negative	<p>At present the noise envelope (and noise insulation) scheme is static. It needs to adapt where evidence emerges that effects occur at lower thresholds or where new metrics are identified as explaining an adverse effect.</p> <p>A requirement stating this principle needs to be included stating the time in which the two schemes will be updated and the approval process and timescale. The detail can be included within the control document.</p>	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
14.1R	Noise Envelope All metrics to be complied with	O	Negative	The noise envelope must ensure that improvement in one metric does not result in a deterioration in another. Explicit requirement within the Noise Envelope Control Document.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1S	Noise Envelope Use central case fleet.	O	Negative	The noise envelope shall be based on central case fleet not slow transition fleet. This change shall be reflected in the DCO and the control document for the noise envelope.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1T	Noise Envelope No increase in noise contours	O	Negative	The noise envelope contour must not increase with any successive envelope period. This needs to be set out within a requirement and reflected within the control document.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1U	Noise Envelope Management Systems to ensure compliance	O	Negative	It is proposed to forecast the year ahead but there is no management system to ensure that the assumptions in the forecast are effectively applied. This leads to uncertainty. A system needs to be established to monitor in year performance to allow corrective action to prevent exceedances.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				This can be achieved through a requirement and a change in the noise envelope documentation.	
14.1V	Noise Envelope Fines	O	Negative	<p>An automatic fine should be levied on the airport operator for an exceedance of any of the noise metrics of the noise envelope and any failure by the airport without reasonable excuse to produce reports or information.</p> <p>This should become payable upon any exceedance and may be subject to a progressively increasing scale. The fine should be calculated on a basis to be determined but such so as to deter a breach.</p> <p>All monies collected should be paid directly to those affected.</p>	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1W	Noise Envelope: Enforcement Model	O	Negative	<p>The oversight, monitoring and enforcement model for the noise envelope was not discussed in any detail with the local authorities.</p> <p>An appropriate role needs to be defined for the local authorities and the Luton Green Controlled Growth Framework’s proposal for a scrutiny board is supported with the option to escalate matters to the LPA.</p> <p>All scrutiny and oversight of the noise envelope and all action in relation to the DCO,</p>	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				including the cost of any specialist advice, is to be funded by the applicant. This needs to be a requirement within the DCO.	
14.1X	Compensation	O	Negative	The applicant to provide annual compensation to everyone within the 54 $L_{Aeq,16h}$ actual contour. The amounts, increase with inflation and amount awarded with exposure to be subject to further discussion but the principles need to be stated within a requirement.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1Y	Airport ground-based activity noise emissions (1)	O	Negative	Noise barrier/ bund – It is not clear where barriers and bunds that are required to mitigate ground noise are secured. Noise Insulation Scheme – Further information and discussion is required the noise insulation scheme.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1Z	Ground noise (2) Ground noise modelling	O	Negative	The assessment of ground noise emissions is limited. In order to improve understanding of effects further work is required that includes production of ground noise contour maps. These should as a minimum be for L_{AeqT} and L_{Amax} for baseline 2019 year and then assessment years (2029,2032, 2038 and 2047). Slow transition fleet needs to be modelled alongside the central case fleet. Modelling needs to be completed under single	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				mode operation to identify locations where there is greatest effect. This can be achieved as a change to the application. All ground noise modelling should inform a Ground Noise Management Plan.	
14.1A A	Ground noise (3) Ground noise management plan	O	Negative	A Ground Noise Management Plan should be provided where all ground noise mitigation/management measures are secured. Together with the modelling this should be used as the basis of options appraisal for continuing reduction of ground noise impacts, for the consideration of new operational practices or as a means of investigating and remedying ground noise complaint. A baseline noise contour should be set similar to the noise envelope and the airport seek to reduce its impact. This can be achieved through a new control document.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1A B	Ground noise (4) Mitigation hierarchy	O	Negative	Clear adoption of balanced approach with mitigation at source; airfield asset limitations; barriers; noise insulation for properties.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1A C	Changes to road traffic	O	Neutral	Barriers, traffic management and speed controls – It is not clear where measures to mitigate operational traffic noise are secured.	NPSNN, NPSE, CBC Policy ENV11, GAT1,

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	noise levels due to operational traffic			In the first instance, more information is required.	mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1A D	Noise emissions from fixed plant (1)	O	Neutral	Acoustic design of plant and fixed noise sources – It is not clear where measures to mitigate fixed plant noise are secured.	NPSE, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29
14.1A E	Noise emissions from fixed plant (2)	O	Negative	The standards for BS4142 need to be clarified. The rated sound level at receiver from fixed plant ought to be below background sound level in accordance with Planning Noise Advice Document: Sussex Ltd. This is related to operational requirements therefore, in the absence of a design code for future plant as a control document, this could be addressed through a requirement.	NPSE, CBC Policy, mCBLP EP 4, PNADS 2023
14.1A F	Increased use of WIZAD (Route 9) and associated noise and disturbance	O	Negative	Maintain the use of WIZAD as tactical offload route only. Controls restricting all night time use (23:00-07:00) and day time use beyond emergency use only, in line with current protocol are required. If any increase in use is proposed a full assessment of impacts must be carried out.	ANPS, NPPF, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Table 14.1: Summary of Impacts – Noise and Vibration

Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Neu)/ Positive (P)	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	perceived by receptors currently unaffected by overflight.				
14.1A G	Unsustainable impact of noise from various sources and on various receptors due to unsustainable growth of airport operations	O	Negative	The Applicant should consider implementing an approach similar to the Green Controlled Growth Framework offered by London Luton Airport. Under this mechanism noise limits and controls are set by the noise envelope and the airports performance is measured and monitored, by an independent group, against a number of noise metrics, controls and limits. Growth at the airport would be contingent on the experience of noise by communities being lower than the baseline, allowing the benefits of new technology to be shared between the airport and communities. Failure to adhere to these agreed limits will result in the cessation of further expansion (i.e. release of aircraft slots) until action has been taken.	ANPS, NPPF, CBC Policy ENV11, GAT1, mCBLP EP4, GAT1* HDC Policy 24 and MSDC Policy DP29

Policy Context

Noise Policy Statement for England 2010 (NPSE)

- 14.9 The [Noise Policy Statement for England](#) (NPSE) sets out the long-Government's overarching policy on noise management. It includes the vision to

"Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development" (paragraph 1.6)

"This long term vision is supported by the following aims:

Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

a. Avoid significant adverse impacts on health and quality of life;

b. Mitigate and minimise adverse impacts on health and quality of life; and

c. Where possible, contribute to the improvements of health and quality of life." (paragraph 1.7)

- 14.10 Paragraph 2.20 identifies the LOAEL as "the level above which adverse effects on health and quality of life can be detected". Paragraph 2.21 identifies the SOAEL as "the level above which significant adverse effects on health and quality of life occur".
- 14.11 Paragraph 2.22 states "it is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant negative impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available".
- 14.12 Paragraph 2.24 states "The second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise negative effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such negative effects cannot occur".

Airports National Policy Statement 2018

- 14.13 The contents of the [Airports National Policy Statement](#) (ANPS) are both important and relevant considerations in the determination of such an airport expansion application, particularly where it relates to London or the southeast of England. In particular, the ANPS makes clear that, alongside the provision of a new Northwest Runway at Heathrow, the government supports other airports making best use of their existing runways.
- 14.14 The ANPS sets out a number of principles for environmental impact assessment.
- 14.15 Paragraph 5.68 of the ANPS is concerned with the decision-making process and states:

"Development consent should not be granted unless the Secretary of State is satisfied that the proposals will meet the following aims for the effective management and control of noise, within the context of Government policy on sustainable development:

Avoid significant adverse impacts on health and quality of life from noise;

Mitigate and minimise adverse impacts on health and quality of life from noise; and

Where possible, contribute to improvements to health and quality of life."

- 14.16 Paragraph 5.52 states: *"Pursuant to the terms of the Environmental Impact Assessment Regulations, the applicant should undertake a noise assessment for any period of change in air traffic movements prior to opening, for the time of opening, and at the time the airport is forecast to reach full capacity, and (if applicable, being different to either of the other assessment periods) at a point when the airport's noise impact is forecast to be highest. This should form part of the environmental statement."*
- 14.17 Paragraph 5.52, which states that:

"The noise assessment should include the following:

A description of the noise sources;

An assessment of the likely significant effect of predicted changes in the noise environment on any noise sensitive premises (including schools and hospitals) and noise sensitive areas (including National Parks and Areas of Outstanding Natural Beauty);

The characteristics of the existing noise environment, including noise from aircraft, using noise exposure maps, and from surface transport and ground operations associated with the project, the latter during both the construction and operational phases of the project;

*A prediction on how the noise environment will change with the proposed project; and
Measures to be employed in mitigating the effects of noise.
These should take into account construction and operational noise (including from surface access arrangements) and aircraft noise”.*

14.18 Paragraph 5.52 goes on to state: “The applicant’s assessment of aircraft noise should be undertaken in accordance with the developing indicative airspace design. This may involve the use of appropriate design parameters and scenarios based on indicative flightpaths”.

14.19 Paragraph 5.53 states that:

“Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. For the prediction, assessment and management of construction noise, reference should be made to any British Standards and other guidance which give examples of mitigation strategies. In assessing the likely significant impacts of aircraft noise, the applicant should have regard to the noise assessment principles, including noise metrics, set out in the national policy on airspace”.

14.20 Paragraphs 5.54 to 5.66 of the ANPS provide details of the type of mitigation measures that could be incorporated into an airport development during construction or operation. Aspects of mitigation that are relevant to the Project are as follows:

- Paragraph 5.54 identifies Regulation 598, which establishes the balanced approach to noise management at airports.
- Paragraph 5.60 requires that the Applicant should put forward plans for a Noise Envelope.
- Paragraph 5.64 states that best practice noise mitigation measures should be adopted for the construction phase

14.21 Paragraph 5.60 of the ANPS states that

“The applicant should put forward plans for a noise envelope. Such an envelope should be tailored to local priorities and include clear noise performance targets. As such, the design of the envelope should be defined in consultation with local communities and relevant stakeholders, and take account of any independent guidance such as from the Independent Commission on Civil Aviation Noise¹⁸. The benefits of future technological improvements should be shared between the applicant and its local communities, hence helping to achieve a

¹⁸ The Independent Commission on Civil Aviation Noise was disbanded by DfT in 2021

balance between growth and noise reduction. Suitable review periods should be set in consultation with the parties mentioned above to ensure the noise envelope's framework remains relevant."

National Policy Statement for National Networks (2014)

14.22 The [National Policy Statement for National Networks](#) (NPSNN) sets out the need for, and Government's policies to deliver, development of nationally significant infrastructure projects on the national road and rail networks in England. It provides planning guidance for promoters of nationally significant infrastructure projects on the road and rail networks.

14.23 For road traffic noise assessments, Paragraph 5.189 states:

"Where a development is subject to EIA and significant noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment, which should form part of the environment statement:

- *a description of the noise sources including likely usage in terms of number of movements, fleet mix and diurnal pattern. For any associated fixed structures, such as ventilation fans for tunnels, information about the noise sources including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise.*
- *identification of noise sensitive premises and noise sensitive areas that may be affected.*
- *the characteristics of the existing noise environment.*
- *a prediction on how the noise environment will change with the proposed development:*
 - *In the shorter term such as during the construction period;*
 - *in the longer term during the operating life of the infrastructure;*
 - *at particular times of the day, evening and night as appropriate.*
- *an assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas.*
- *measures to be employed in mitigating the effects of noise. Applicants should consider using best available techniques to reduce noise impacts.*
- *the nature and extent of the noise assessment should be proportionate to the likely noise impact."*

14.24 Paragraph 5.196 highlights the need to ensure that the development does not exceed estimated noise levels, and that mechanisms are in place to tackle any exceedance.

- 14.25 Paragraph 5.199 makes reference to the Noise Insulation Regulations 1975 as amended which would apply and for which any eligibility would need to be determined.
- 14.26 Paragraph 5.200 states that "Applicants should consider opportunities to address the noise issues associated with the Important Areas as identified through the noise action planning process."

The Aviation Policy Framework 2013 (APF)

- 14.27 The [Aviation Policy Framework](#) sets out the Government policy objective for the management of noise at UK airports, which is summarised at paragraph 3.12 as: "The Government's overall policy on aviation noise is to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise, as part of a policy of sharing benefits of noise reduction with industry."

Draft UK Airspace Policy: A framework for balanced decisions on the design and use of airspace

- 14.28 Paragraph 9 of the Draft Airspace Modernisation Strategy states: "The Government's current aviation policy is set out in the Aviation Policy Framework (APF). The policies set out within this document provide an update to some of the policies on aviation noise contained within the APF, and should be viewed as the current government policy".

Government's Consultation Response on UK Airspace Policy: A framework for balanced decisions on the design and use of airspace

- 14.29 Paragraph 2.69 states: "Consistent with the Noise Policy Statement for England, our objectives in implementing this policy are to: ... limit and, where possible, reduce the number of people in the UK significantly affected by the adverse impacts from aircraft noise."
- 14.30 Paragraph 2.72 states: "We will set a LOAEL at 51dB LAeq,16h for daytime and based on feedback and further discussion with CAA we are making one minor change to the LOAEL night metric to be 45dB LAeq,8h rather than Lnight to be consistent with the daytime metric."

Aviation 2050: The Future of UK Aviation

- 14.31 Paragraph 3.115 of [Aviation 2050](#) states:

"The proposed new measures are:

"setting a new objective to limit, and where possible, reduce total adverse effects on health and quality of life from aviation noise. This brings national aviation policy in line with airspace policy updated in 2017

Developing a new national indicator to track the long-term performance of the sector in reducing noise. This could be defined either as a noise quota or a total contour area based on the largest airports

Routinely setting noise caps as part of planning approvals (for increase in passengers or flights) . The aim is to balance noise and growth and to provide future certainty over noise levels to communities. It is important that caps are subject to periodic review to ensure they remain relevant and continue to strike a fair balance by taking account of actual growth and the introduction of new aircraft technology. It is equally important that there are appropriate compliance mechanisms in case such caps are breached, and the government wants to explore mechanisms by which airports could 'pay for' additional growth by means of local compensation as an alternative to the current sanctions available **Requiring all major airports to set out a plan which commits to future noise reduction, and to review this periodically.** This would only apply to airports which do not have a noise cap approved through the planning system and would provide similar certainty to communities on future noise levels. The government wants to see better noise monitoring and a mechanism to enforce these targets as for noise caps. The noise action planning process could potentially be developed to provide the basis for such reviews, backed up by additional powers as necessary for either central or local government or the CAA"

Beyond the horizon, The future of UK aviation: Making best use of existing runways 2018

14.32 Paragraph 1.29 of [Beyond the horizon, the future of UK aviation](#) states: "the government is supportive of airports beyond Heathrow making best use of their existing runways. However, we recognise that the development of airports can have negative as well as positive local impacts, including on noise levels. We therefore consider that any proposals should be judged by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations."

DfT – [Overarching Aviation Noise Policy 2023](#)

14.33 This short policy notes that, as previously stated, the Government intended to publish a noise policy paper later in 2023. It went on:

"In advance of this, to frame the night-time noise abatement objective consultation and to provide clarity for airports and their stakeholders preparing or responding to noise action plan

consultations, we are publishing the government's revised overarching aviation noise policy statement:

The government's overall policy on aviation noise is to balance the economic and consumer benefits of aviation against their social and health implications in line with the International Civil Aviation Organisation's Balanced Approach to Aircraft Noise Management. This should take into account the local and national context of both passenger and freight operations, and recognise the additional health impacts of night flights.

The impact of aviation noise must be mitigated as much as is practicable and realistic to do so, limiting, and where possible reducing, the total adverse impacts on health and quality of life from aviation noise."

Consequently, whereas policy previously required that, where possible, the number of people in the UK significantly affected by aircraft noise should be limited and reduced, where possible, the policy now focuses on limiting and where possible reducing the total adverse impacts of health and quality of life from aviation noise.

UK National Policy of Sharing the Benefits of Technological Improvement

- 14.34 It can be seen from the above summary of the current policy environment, that several mention that any future technological reductions in the noise emitted from aircraft should be shared between the industry and those affected.
- 14.35 In particular, the Noise Envelope, which must be produced in connection with this DCO application must include a mechanism to enable this sharing to occur.
- 14.36 Paragraphs 14.2.40 to 14.2.46 of Chapter 14 of the GAL Environmental Statement discusses the March 2023 policy update from the Department for Transport. GAL appears to have concluded that because this policy update is silent on the requirement for a Noise Envelope to include a mechanism for sharing the benefit of future technological reductions in noise from individual aircraft, that policy no longer exists. This view is reflected in a sentence in Paragraph 14.2.44 of Chapter 14 of the ES which states:

"Reference to Sharing the Benefits of aircraft noise emission reduction has been removed."

And, at the end of that paragraph, the GAL position is that:

"and this ES does not provide further material on sharing the benefits"

- 14.37 It is the view of the Authorities that this is an incorrect interpretation of the policy. As indicated above the March 2023 statement simply identified an evolution of overall policy to address two specific requirements in 2023 concerning night noise and noise action plans, ahead of a fuller update of policy that had been expected to be published later that year. It is now understood that the policy will appear sometime in 2024.
- 14.38 In general, policy does not change unless Government states that it has changed. There was nothing in the March 2023 policy that said that the principle of sharing the benefit no longer existed. Therefore, GAL does need to include a mechanism in their proposed Noise Envelope to enable any future technological reductions in noise from individual aircraft to be shared. At the moment, no such mechanism exists.
- 14.39 Following completion of the CAP1129 community consultation process, GAL advised all stakeholders in November 2023 that they would no longer provide any share in future technological improvement because the Government's March 2023 policy update was silent on this issue. Instead they considered the economic benefits derived should be apportioned to the airport.

National Planning Policy Framework (December 2023)

- 14.40 The [National Planning Policy Framework](#) (NPPF) states at paragraph 191 that "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

a) mitigate, and reduce to a minimum, potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason"

- 14.41 The NPPF also states at paragraph 180 that "*Planning policies and decisions should contribute to and enhance the natural and local environment by: ...*

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”

Local Plan Policy

Crawley Borough Local Plan 2015 – 2030 and Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

- 14.42 The Crawley Borough Local Plan 2015-2030 outlines Crawley Borough Council's approach to developments in the borough until 2030. This will be superseded by the Crawley Borough Local Plan 2023 – 2040 once adopted.
- 14.43 In the 2015-2030 document policy ENV11 describes the Council's environmental policy on noise and is outlined below:

"B. Noise Generating Development

Noise generating development will only be permitted where it can be demonstrated that nearby noise sensitive uses (as existing or planned) will not be exposed to noise impact that will adversely affect the amenity of existing and future users. Proposals will adhere to standards identified in the Local Plan Noise Annex to establish if the proposal is acceptable in noise impact terms, and will be required to appropriately mitigate noise impacts through careful planning, layout and design. Development that would expose users of noise sensitive uses to unacceptable noise levels will not be permitted.

C. Noise Impact Assessment

A Noise Impact Assessment will be required to support applications where noise sensitive uses are likely to be exposed to significant or unacceptable noise exposure. The Noise Impact Assessment will:

- i. assess the impact of the proposal as a noise receptor or generator as appropriate; and*
- ii. demonstrate in full how the development will be designed, located, and controlled to mitigate the impact of noise on health and quality of life, neighbouring properties, and the surrounding area. In preparing a Noise Impact Assessment, applicants will adhere to Planning Noise Advice Document: Sussex (2013) for further guidance.*

D. Mitigating Noise Impact

Where proposals are identified as being subject to significant or unacceptable noise impact, either through noise exposure or generation, the best practical means must be employed to mitigate noise impact to an acceptable level.”

- 14.44 This policy will be replaced with policy EP4 in the mCBLP 2023-2040 which states that:

...B. Noise Generating Development

Noise generating development will be permitted where it can be demonstrated that nearby noise sensitive uses (as existing or planned) will not be exposed to noise impact that will adversely affect the amenity of existing and future users. Proposals will adhere to standards identified in the Local Plan Noise Annex to establish if the proposal is acceptable in noise impact terms, and where required will, through good acoustic design, appropriately mitigate noise impacts through careful planning, layout and design. Noise Generating Development that would expose users of noise sensitive uses to Unacceptable Adverse Effect noise will not be permitted.

C. Noise Impact Assessment

A Noise Impact Assessment will be required to support applications where noise sensitive uses are likely to be exposed to significant or unacceptable noise exposure. The Noise Impact Assessment will:

- i. assess the impact of the proposal as a noise receptor or generator as appropriate; and*
- ii. demonstrate in full how the development will be designed, located, and controlled to mitigate the impact of noise on health and quality of life, neighbouring properties, and the surrounding area. In preparing a Noise Impact Assessment, applicants will adhere to Planning Noise Advice Document: Sussex (2020 or latest revision) and ProPG (Professional Practice Guidance on Planning & Noise for New Residential Developments) for further guidance.*

D. Mitigating Noise Impact

Where proposals are identified as being in the Lowest Observed Adverse Effect Level (LOAEL) or the Significant Observed Adverse Effect Level (SOAEL) categories, either through noise exposure or generation, all reasonable mitigation measures must be employed to mitigate noise impacts to an acceptable level that is as low as is reasonably achievable. Appropriate mitigation must be delivered as part of the development to ensure that the impacts of existing or known potential future noise sources are acceptable on the use being applied for by the applicant”.

- 14.45 The Crawley Borough Local Plan 2015-2030 supports development at Gatwick Airport as a single runway airport. Policy GAT1: Development of the Airport with a Single Runway states:

"Within the airport boundary as set out on the Local Plan Map, the council will support the development of facilities which contribute to the safe and efficient operation of the airport as a single runway, two terminal airport up to 45 million passengers per annum provided that: [...] ii. Satisfactory safeguards are in place to mitigate the impact of the operation of the airport on the environment including noise, air quality, flooding, surface access, visual impact and climate change".

- 14.46 This policy will be replaced with policy GAT1 in the mCBLP 2023-2040 which states that:

"Within the airport boundary as set out on the Local Plan Map, the council will support the development of facilities which contribute to the sustainable growth of Gatwick Airport as a single runway, two terminal airport provided that:

i. The proposed use is appropriate within the airport boundary and contributes to the safe, secure and efficient operation of the airport; and

ii. The adverse impacts of the operation of the airport on the environment and the health and living conditions of the local community, including noise, air quality, flooding, surface access, visual impact, and climate change, are minimised, that where necessary satisfactory safeguards are in place to ensure impacts are appropriately mitigated and, as a last resort, fair compensation is secured; and.....

The control or mitigation of impacts, proportionate compensation, infrastructure and benefits will be secured through appropriate planning conditions and/or S106 obligations.

Where development to enable sustainable growth at Gatwick Airport will be a Nationally Significant Infrastructure Project, such as the operational use of the northern runway, i-v above will be taken into account by the council in responding to a DCO, and will be expected to be met by the airport operator and secured through appropriate requirements or S106 obligations".

Horsham District Planning Framework 2015

- 14.47 Horsham District Council's Planning Framework acts as a Local Plan. This plan is in effect until 2031 and excludes the area of the South Downs National Park. In the plan, policy 24 (Strategic Policy: Environmental Protection) outlines the Council's plans for developments to follow *"to minimise exposure to and the emission of pollutants including noise, odour, air and light pollution"*. Strategic Policy 25 (The Natural Environment and Landscape Character) seeks to protect, conserve and enhance *"the landscape and townscape character"*, in particular *"areas identified as being of landscape importance"* and the characteristics of the settlements

across the District. Policy 33 (Development Principles) requires development to avoid “*unacceptable harm*” to amenity through noise.

Mid Sussex District Plan 2014-2031

- 14.48 The Mid Sussex District Plan includes the policy DP29: Noise, Air and Light Pollution and outlines when development is allowed. For noise, development is permitted when:

“It is designed, located and controlled to minimise the impact of noise on health and quality of life, neighbouring properties and the surrounding area;

If it is likely to generate significant levels of noise it incorporates appropriate noise attenuation measures”

Other Relevant Local Policy

Planning Noise Advice Document: Sussex (November 2023)

- 14.49 There is noise advice that has been developed by the East Sussex and West Sussex Local Authorities, including CBC, HDC and MSDC. The document provides advice for developers and their consultants to assist in making a planning application in East and West Sussex, having regard to noise.

Applicant's Approach to Assessment

In Combination Impacts

- 14.50 There are concerns over the lack of consideration of the interaction and cumulative effect of different types of noise originating from the airport. Noise sources have been considered individually, e.g. as air noise and ground noise. Expressing the noise using similar metrics would have aided interpretation. Furthermore, it would have been possible to draw conclusions about the cumulative effects of similar noises originating at the airport such as air noise and ground noise at specific locations. It is likely that as a result of this approach, the combined effects of air and ground noise on the population in the receptor area have been understated, especially in the receptor areas identified within the Environmental Statement ([APP-039](#)).

Recommendations:

- 14.51 Applicant to provide modelling to show the cumulative impacts of different noise sources at the airport. As part of this ground noise contours are produced for base and all case years. All assumptions and uncertainties are to be stated for the combined model.

Awakenings

- 14.52 The applicant has presented information on awakenings but the way in which the awakenings has been put into context is not consistent with the effects on individuals. Furthermore, little importance has been given to the existing impact of awakenings on a baseline year of 2019, how it is due to increase with baseline and then only the marginal amount attributable to the Northern Runway is calculated. Awakenings need to be considered in their totality and the significance of marginal increases considered in this context.

Recommendation:

- 14.53 Applicant to review and re-present awakening information and consideration of significance having regard to total awakenings associated with both ground and air noise.

Construction Noise

- 14.54 Appendix 14.9.1 Construction Noise Modelling ([APP-171](#)) presents results of construction noise modelling in terms of the number of properties predicted to experience construction noise levels between Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) and the number of properties predicted to experience construction noise levels exceeding SOAEL.

- 14.55 Construction noise predictions are presented in Table 14.9.1 (daytime) and Table 14.9.2 (night-time) of Chapter 14 Noise and Vibration ([APP-039](#)). There is some confusion regarding how these results apply to the construction noise assessment as they do not align with results presented in Table 3.1.2 and Table 3.1.3 [APP-171]. Paragraph 14.9.8 ([APP-039](#)) states: "*The daytime SOAEL for residential receptors for construction noise is Leq, 12 hr 75 dB. This level of construction noise is not predicted at any of the representative community locations*". This directly contradicts the identification of daytime exceedances of the SOAEL in paragraph 16.9.26 ([APP-039](#)).

Clarification is required of construction noise assessment information presented in paragraphs 14.9.5 to 14.9.12 ([APP-039](#)) as it does not seem to correlate with the identification of likely significant effects.

- 14.56 The construction noise assessment assumes that percussive sheet piling would occur at night; however, use of percussive piling is not considered to represent best practice and should only be applied if all other practicable options have been exhausted. This commitment should be included in the CoCP. If percussive piling is required, there should be a requirement for a specific assessment to be undertaken, including justification as to why this is required and identification of appropriate mitigation measures. This should be agreed with the Local Authority prior to commencement of these works.
- 14.57 Sheet piling locations are identified in Table 14.9.5 ([APP-039](#)). Construction noise effects are not identified at night at A23 Brighton Road Bridge, Network Rail Bridge, South Terminal Roundabout and Longbridge Roundabout. Clarification should be provided as to whether night-time sheet piling is required at these locations.
- 14.58 Detail is required on the number of properties experiencing exceedances of the SOAEL due to sheet piling at night.
- 14.59 Some properties are predicted to experience exceedances of the SOAEL but will not be offered insulation because of the duration of exposure. The residual effect is identified as 'not significant'; however, duration of exposure is not reason to define effects as 'not significant'.
- 14.60 Alignments and heights of noise barriers used to reduce significant noise effects should be provided and a commitment made to secure provision of noise barriers.
- 14.61 The hours of work stated in the Code of Construction Practice (COCP) ([APP-082](#)) differ from the assessment periods used in the Environmental Statement. The core working hours should be limited to 08:00-18:00 Monday to Friday, with an additional period of up to

hour before/after this for quiet start-up and close down activities. Construction vehicle movements to and from site should not be permitted in these start up and close down periods.

Recommendations:

- 14.62 The Applicant to clarify and correct the position in the formal submission.
- 14.63 The core hours of are to be limited according to the criteria above.
- 14.64 A mitigation hierarchy is to be adopted to ensure that at source mitigation or barriers are used in preference to noise insulation.

Construction Vibration

- 14.65 There is no assessment on vibration effects due to the use of vibratory rollers used during road compaction has been provided. This should be provided by the Applicant.
- 14.66 Vibration effects from percussive sheet piling should also be assessed to align with the assumptions in the construction noise assessment.

Recommendations:

- 14.67 The Applicant should address these points in the formal submission.

Air Noise: LAmax

- 14.68 LAmax levels from the A320 were calculated to provide an indication of how they may change as a result of the proposed expansion. The A320 is one of the most common aircraft at Gatwick so was considered suitably representative of typical aircraft noise levels.
- 14.69 A decrease in LAmax levels of 3 dB is discussed for westerly departures at properties in housing areas of Langley Green and north Ifield. It should be stressed that this decrease in LAmax is only when a departure from the northern runway is compared to a departure from the southern runway. In reality, there will be no reduction in LAmax noise as the properties are currently exposed to aircraft noise and will continue to be so if the proposed expansion goes ahead.
- 14.70 Identification of decreases in LAmax levels is misleading as LAmax levels will not change as a result of the expansion.

Recommendations:

- 14.71 The Applicant **should** correct these points in the formal submission.

Air Noise: General Comments

- 14.72 The assessment of likely significant effects only accounts for noise effects in 2032, which is identified as the worst-case year. In terms of supplementary metrics such as Number Above and Overflights, 2032 is not the worst-case. It is essential to have an assessment that covers all assessment years to fully understand the temporal effects to the local population due to the total effects and the proposed expansion.
- 14.73 The assessment of likely significant effects was undertaken using primary $L_{Aeq,16h}$ and $L_{Aeq,8h}$ noise metrics. Additional awakenings have also been narrowly considered. Context was provided to the assessment using the following supplementary noise metrics:
- Number Above N65 (day) and N60 (night).
 - $L_{A_{smax}}$.
 - Annual Lden and Lnight contours.
 - Overflights.
- 14.74 These supplementary metrics should have been used for more than just context and should have been used when identifying likely significant effects.
- 14.75 Figure 14.9.3 ([APP-064](#)) presents a comparison of the 2032 baseline with the equivalent 'slower transition case' contours; however, the SOAEL 55dB $L_{Aeq,8h}$ contour is not provided. This contour should be provided along with a zoomed in figure so the extents and the change in SOAEL contour can be understood. A zoomed in view of the daytime SOAEL contours should also be provided for all night-time noise contours.
- 14.76 Paragraph 14.8.15 ([APP-039](#)): *"The Project does not require new flight paths, which avoids the noise impacts that can be associated with those. Only departures would use the northern runway, except during maintenance, as is currently the case. The majority of these would be above 1,000 feet before they leave the airfield"*.
- 14.77 This is broadly true; however, it should be taken with the context that the use of the northern runway would result in an intensification of movements on tracks that are not currently frequently used; those being the northern runway departure tracks that join with the existing departure routes and the WIZAD departure route.
- 14.78 Paragraph 14.8.16 ([APP-039](#)): *"The noise modelling has assumed that use of the northern runway would be limited to the period 06:00-23:00 hours, avoiding scheduling flights in the majority of the more sensitive night-time period."* This is a commitment in the DCO [APP-008]

Recommendations:

- 14.79 The Applicant must produce primary and supplementary metrics for all case years and use all of these to identify likely significant effects and update the assessment and mitigation accordingly.

Ground Noise Assessment

- 14.80 Ground noise is dominated by the use of the End Around Taxiways (EATs), Engine Ground Running (EGR), taxi-ing and engine testing.
- 14.81 Information about ground noise is included in the ES Chapter 14 ([APP-039](#)), ES Appendix 14.9.3 Ground Noise Modelling ([APP-173](#)) and ES Appendix 14.9.6: Ground Noise Baseline Report ([APP-176](#)). At the time of drafting this it is not possible to identify a clear 2019 (or 2016) baseline set of metrics that can be compared with any of the future scenarios, with or without project.
- 14.82 There are numerous errors throughout the ground noise assessment. Table 14.9.13 ([APP-039](#)) and detailed results in Table 5.4.2 ([APP-173](#)). Significant effects are not adequately covered in the discussion from paragraphs 14.9.220 to 14.9.233 ([APP-039](#)). Residual effects are not appropriately identified in paragraphs 14.9.236 to 14.9.241 ([APP-039](#)).
- 14.83 The ES Chapter 14 focuses on the worst year of 2032 of ground noise and to determine the impact on the local area. For the Horsham District Receptor Area 8 is representative of a group of properties that may be similarly affected. For this location within Horsham District the receptors within Bonnetts Lane are identified as the worst affected locations.
- 14.84 Gatwick have specified Lowest Observable Adverse Effect Levels (LOAELs) and Significant Observable Adverse Effect Level (SOAELs) in ES Chapter 14 - ([APP-039](#)) Paragraph 14.9.34 for ground noise as follows:

Table 14.2: LOAEL and SOAEL thresholds for ground noise presented by Applicant

Issue	LOAEL	SOAEL
Day	$L_{eq, 16 \text{ hour}}$ day 51 dB	$L_{eq, 16 \text{ hour}}$ day 63 dB
Night	$L_{eq, 8 \text{ hour}}$ night 45 dB	$L_{eq, 8 \text{ hour}}$ night 55 dB

- 14.85 In addition, reference is made to the use of 60dB L_{Asmax} (for night exposure i.e. 23:00 to 07:00) and 65dB L_{Asmax} (for day time exposure i.e. 07:00 to 23:00).
- 14.86 The LOAELs and SOAELs for the day and night period are the same as those stated for air noise. The assessment relies on gathering information from specific aircraft categories and then modelling based on a series of assumptions. There are a number of concerns

over the modelling:

- the nature of the inputs including the base data for the aircraft;
- the use of central case fleet instead of slow transition fleet;
- the absence of ground noise contours, including those showing the base case and then as an options design tool to inform airport mitigation; and
- the absence of contours presented in single mode operation.

- 14.87 In section 4.5.5. of ES Appendix 14.9.3 Ground Noise Modelling ([APP-173](#)) the central case fleet mix has been used for the model rather than slow transition fleet. The reasons provided are that there would be the same $L_{A_{\text{smax}}}$ levels but a marginally higher Leq of 1-2 dB. The Authorities would like to understand how this is concluded as it seems counterintuitive.
- 14.88 The Applicant states that slow transition fleet is not modelled because, being close to the ground, the noise is attenuated by buildings and structures. This is not correct for the propagation pathway to the nearest receptors in Horsham District and Crawley Borough as there are no buildings or structures. ERCD R&D Report 9850 on Night Time Ground Noise specifically found that “the paucity of buildings ... allowed noise to propagate freely” and this was in relation to an assessment location at the North of Ifield which is approximately two to three times the distance of the end around taxiways compared to the properties in Bonnetts Lane. (Note that while the ERCD work is old and engine technology has changed, nothing has changed in relation to the propagation characteristics).
- 14.89 The Appendix 14.9.3 ([APP-173](#)) suggests that the impact of the ground noise will be limited due to road traffic noise. However, as aircraft noise has very different characteristics to road traffic noise it is not clear from the information presented in the report that this will be the case.
- 14.90 The *assessment* of ground noise was undertaken with reference to the $LA_{eq,T}$ and LA_{max} noise metrics. The use of the LA_{max} metric to assess ground noise is to “...assist in determining significance of effects for particular intermittent noise sources such as Engine Ground Running and use of EATs” (paragraph 14.4.84 ([APP-039](#))). It is unclear why these noise sources are not included when predicting $LA_{eq,T}$ noise levels as they should be represented in a reasonable worst-case day. Particularly as Engine Ground Running is not an instantaneous event so the duration of exposure is important to consider.
- 14.91 The assessment of likely significant effects is based on ground noise predictions in Table 14.9.13 ([APP-039](#)) and the change in noise presented in Table 14.9.14 ([APP-039](#)). The assessment is based on

what the change in ground noise would be as a result of the expansion; however, no consideration is given to absolute noise levels and whether they equal or exceed SOAEL as per the assessment methodology in paragraph 14.9.43 ([APP-039](#)). As such, likely significant effects may be understated.

- 14.92 The assessment of ground noise accounts for effects in 2032, which is identified as the worst-case scenario. The change in ground noise for the 2032 scenario is presented in Table 14.9.14 ([APP-039](#)). However, Table 5.3.4 and Table 5.3.6 ([APP-173](#)) both report larger increases in noise in 2038 and 2047. As such, likely significant effects may be understated.
- 14.93 The assessment of ground noise is undertaken based on the Central Case and, unlike the air noise assessment, does not cover the Slow Transition Case. This case should also be assessed as it may identify larger increases in ground noise and result in a greater number of exceedances of SOAEL.
- 14.94 No significant effects are identified from assessment of the LA_{max} noise metric despite numerous exceedances of the defined criteria being identified (Table 14.9.16 ([APP-039](#))). Consequently, justification should be provided as to how the LA_{max} metric is used to identify significant effects and why significant effects are not identified by the Applicant.

Recommendations:

- 14.95 The Applicant should review and revise the ground noise model to take account of the factors above and provide clarification and correction as appropriate.
- 14.96 The Applicant should provide a full set of ground noise contours for 2019 as a baseline year with suitable validation and verification of the model. All assumptions and uncertainty are to be stated. The model shall state and incorporate and have regard to all existing physical and operational controls (such as those as a result of planning permissions). This model shall then be run under the case years consider future design scenarios of the airport.
- 14.97 To improve understanding of impacts single mode contours are required to assist identification of where, when and how the adverse effects occur. In turn mitigation can be trialed to identify what may reasonably be done to reduce the impact at the receivers. As part of good acoustic design this would be expected to inform ground configuration, restrictions on the time of use of the taxiways, restrictions on the noisiest aircraft that could use the taxiways, towing requirements, maximum thrust settings, noise barriers and finally use of noise insulation schemes.
- 14.98 The principles of the noise envelope should be extended to ground noise for modelling and monitoring and action with the aim of reducing the impact and assessing operations for not only

compliance but for reducing noise impacts.

Setting Thresholds for LOAEL and SOAEL

- 14.99 There is evidence that additional sleep awakening or arousal caused by external stimuli, resulting in a change in sleep states, can result in harm^{19,20}. The louder the external aircraft noise event (the $L_{A_{\text{max}}}$), the fewer the number of events required to cause an additional noise induced awakening. The additional awakening takes account of all aircraft noise events and relative loudness, unlike the N above number (number of events above 65dB for day or 60dB for night) contours and the $L_{A_{\text{max}}}$ events. The Survey of Noise Attitudes 2014: Aircraft Noise and Sleep Disturbance, Further Analysis²¹ provides UK derived exposure response functions for awakenings.
- 14.100 Health effects are considered over the 8 hour night period (23:00 to 07:00). However, the DfT night noise scheme only controls noise between 23:30 and 06:00. Thus, it is perfectly possible for Gatwick to increase it's flights in the 1½ hours of the night period without contravening the DfT night noise regime but having a potential impact on sleep for the 8 hour night period increasing the likelihood of an additional noise induced awakening. It has proposed this with an increase in the order of 10%.
- 14.101 The business models for the major airlines at Gatwick requires optimising the number of turnarounds and routes (see Section 6 for further analysis). To achieve this, it is necessary maximise early morning departures and late return of flights without encroaching the 6.5-hour night noise quota period but as referred above there is no control of flights in the remainder of the 8 hour night period.
- 14.102 There is no policy effect threshold for additional noise induced awakenings and the precedent is with Heathrow proposals for a SOAEL of one additional noise induced awakening. Table 4 of CAP 2251 highlights that with one summer night additional noise induced awakening the percentage of highly sleep disturbed individuals jumps from 8% to 15%. This is consistent with how SOAEL has been derived for other metrics in UK context. It also reports that between 0.5 to 1.0 awakenings gives rise to 8% highly sleep disturbed. As this is comparable to the LOAEL for other exposure response factors, there is a potential for this as a LOAEL (although effects are noted lower than this).

Recommendation:

¹⁹ Basner, M., Samel, A., & Isermann, U. (2006). Aircraft noise effect on sleep: application of the results of a large polysomnographic field study. *The Journal of the Acoustical Society of America*, 119, 2772-2784

²⁰ WHO (2009) *Night Noise Guidelines for Europe* ISBN 978 92 890 4173

²¹ [CAP 2251: Survey of Noise Attitudes 2014 Aircraft Noise and Sleep Disturbance, Further Analysis \(caa.co.uk\)](https://www.caa.co.uk/consultations-and-licensing/cap-2251-survey-of-noise-attitudes-2014-aircraft-noise-and-sleep-disturbance-further-analysis)

14.103 The Applicant should take into consideration these values in designing the noise insulation scheme with the area of the one additional noise induced awakening forming qualifying for the inner zone grant.

Air Noise Day LOAEL and SOAEL

14.104 National aviation policy cites daytime LOAEL of 51dB LAeq 16h. This is based on Survey of Noise Attitudes 2014 about which there is criticism including:

- it was not designed to determine impacts below 51 dB LAeq 16hr;
- that the majority of the respondents were located around Heathrow (which has a different context to Gatwick);
- it does not take account of vulnerable groups; and
- it is predicated on studies at airports where there is stable operation.

14.105 It is acknowledged that there are effects below this level by more recent work.

14.106 National aviation policy also defines the 63 dB LAeq 16h is SOAEL, although emerging policy promotes the 60dB LAeq 16h. The Green Paper: "Aviation 2050: The future of UK Aviation"²² consultation and the Manston Airport Decision²³ both refer to the need for insulation at 60dB LAeq 16h.

Recommendation:

14.107 Due to these factors the greatest protection should be considered from 60dB LAeq 16h and that the 60dB LAeq 16h should be a design aim for external space. Where noise levels exceed the 60dB LAeq 16h then noise insulation at this level should be equivalent to that currently proposed for the inner zone of the noise insulation scheme. The noise mitigation offered in bands below this level should also be improved.

Air Noise Night LOAEL and SOAEL

14.108 In the context of nighttime exposure, while there is an element of annoyance, the impact on sleep and subsequent effect on health is significant and can result in loss of productivity and impairment to

²² [Aviation 2050 – the Future of UK Aviation](#)

²³ [Article 9 Manston Development Consent Order](#)

learning. There is increasing recognition of the importance of reducing the exposure to night noise in UK policy so as to reduce adverse impacts^{24 25 26}.

- 14.109 The existing nighttime 45LAeq 8hr LOAEL is based on the thresholds cited in the UK Airspace Policy (Department for Transport 2017). We note that the open consultation on Night flight restrictions: Heathrow, Gatwick and Stansted airports from October 2025, Published 22 February 2024 states:

"In the case of night-flight restrictions at the designated airports, the Government's view is that a noise problem exists if there are occupied residential properties within the 45dB LAeq 8-hour contour for night-time noise.

"Where there is a noise problem at an airport, UK law requires it to be addressed in accordance with the balanced approach. The balanced approach requires that decisions in relation to an airport's operations consider both health and economic factors. It also means that where there is a noise problem at an airport, it should be addressed in accordance with the balanced approach and be managed in a cost-efficient manner."

- 14.110 This implies that exposure should be *avoided* from 45dB LAeq 8hour and that there should be mitigation to at least this level. Beyond this, the impacts should be assessed to 40LAeq 8hr as a sensitivity analysis to compare against the World Health Organization value under the Night Noise Guidelines 2009.
- 14.111 It is noted that the 40dB LAeq 8hr needs to be adopted by the Government as UK policy. Despite not yet being adopted it has weight as it is a health based standard for which there are no international differences. (For annoyance based standards non acoustic factors influence the results and these can vary from location to location). Furthermore, the 40 dB LAeq 8hr is being used as a sensitivity test at other locations in relation to air space change.
- 14.112 The 55 dB LAeq, 8 hour, night threshold proposed by Gatwick is consistent with the aviation policy and World Health Organization Night Noise Guidelines 2009 (this was described as an interim target) which states that at more than 55 dB *"the situation is considered increasingly dangerous for public health. Adverse health effects occur frequently, a sizeable proportion of the population is highly annoyed and sleep disturbed. There is evidence that the risk of cardiovascular disease increases"*.
- 14.113 As discussed under the Night Noise LOAEL the night flight restriction consultation the statement about 45 dB LAeq 8hour has

²⁴ [Overarching Aviation Noise Policy 2023](#)

²⁵ [Aviation Policy Framework 2013 Paras 3.34 to 3.35](#)

²⁶ [Government Consultation Outcome on Night Flight Restrictions](#)

introduced doubt about the where the SOAEL value lies.

- 14.114 CAP 2161 Survey of Noise Attitudes 2014: Aircraft Noise and Sleep Disturbance (2021) provides additional analysis of the Survey of Noise Attitudes to examine the effects of aircraft noise on sleep disturbance. It can be considered to provide UK derived exposure response factors for sleep disturbance.
- 14.115 At 48dB LAeq, 8h, night there is a sharp increase in the percentage of respondents who were highly sleep disturbed. Therefore, based on UK derived research it is recommended that the 48 LAeq, 8h night is used as a sensitivity test.
- 14.116 Notwithstanding given there are significant benefits to protecting the population at the 48 dB LAeq, 8h, night it is considered that this should become the extent of the night period noise insulation inner zone.

Recommendation:

- 14.117 The applicant should extend the extent of the inner zone to the 48 dB LAeq, 8h night due to the benefits that are derived at this level. An appropriate level of protection needs to be provided to 45 dB LAeq, 8h night and given that health effects are seen down to 40 dB LAeq further mitigation should be considered to this level.

Road Traffic Noise

- 14.118 An overview of the road traffic assessment is provided in Chapter 14 Noise and Vibration ([APP-039](#)) with a detailed description of the process and results provided in Appendix 14.9.4 [APP-174].
- 14.119 The assessment follows the guidance given in DMRB LA111, as described in paragraph 14.4.7 ([APP-039](#)). This is considered an appropriate approach. The modelling assumptions, provided in paragraphs 3.3.12 to 3.3.19 ([APP-174](#)) seem reasonable.
- 14.120 Paragraph 14.4.16 ([APP-039](#)) states that the road traffic noise study area extends 600 m from new highway works associated with the Project as required by DMRB. The DMRB guidance does acknowledge that a 600 m study area can be appropriate for many schemes but clarifies that the study area should be adjusted to include potentially affected receptors and reasonable stakeholder expectation. No justification for use of the 'default' 600 m study area is given but paragraph 14.4.17 does clarify that all roads in the strategic model have been screened for changes in road traffic noise.
- 14.121 The LOAEL and SOAEL for both daytime and night-time road traffic

noise have been set to the values given in DMRB. Impacts in 2032 have been considered with respect to the short-term magnitude of impact criteria from DMRB, as given in Table 14.4.8 ([APP-039](#)), and impacts between 2032 and 2047 have been considered with respect to the long-term magnitude of impact criteria from DMRB, as given in Table 14.4.9 ([APP-039](#)).

- 14.122 Significant effects have been determined following DMRB guidance, as described in paragraphs 14.4.111 to 14.4.115 ([APP-039](#)). This is considered an appropriate approach.
- 14.123 Baseline road traffic noise predictions have been made at 17 noise sensitive receptors (NSRs) and results are discussed in paragraph 14.6.23. Contours of baseline road traffic noise predictions for 2018 are provided in figures 14.6.10 and 14.6.11 ([APP-063](#)) for the daytime and night-time respectively. Additionally, future baseline road traffic noise predictions for 2032 are provided in figures 14.6.19 and 14.6.20 ([APP-063](#)) for the daytime and night-time respectively.
- 14.124 As stated in paragraph 14.4.23 ([APP-039](#)), baseline monitoring of road traffic noise was carried out at three locations in Riverside Garden Park, adjacent to the A23, but for only 10 minutes at each location. As such, results from the monitoring exercise were not used to validate the road traffic noise predictions.
- 14.125 Paragraph 14.9.77 ([APP-039](#)) states that the additional road traffic in the opening year of 2029 would not lead to any significant increases in road traffic noise. No further evidence to support this conclusion is provided.
- 14.126 Short-term changes in road traffic noise in 2032, as a result of the Project, as well as long-term changes, between 2032 and 2047, are presented both in Chapter 14 ([APP-039](#)) and Appendix 14.9.4 ([APP-174](#)).
- 14.127 Chapter 14 ([APP-039](#)) presents results for 7 of the 17 NSRs considered in the PEIR. Results for the remaining 10 NSRs are provided in Appendix 14.9.4 ([APP-174](#)). These results show either reductions or negligible increases in road traffic noise in both the short-term and the long-term, during both the daytime and night-time.
- 14.128 Road traffic noise levels 10 m from the road edge, the Basic Noise Levels (BNL), have been calculated for the wider road network. Paragraph 14.9.255 ([APP-039](#)) identifies Charlwood Road and Ifield Avenue as expected to experience a minor increase in road traffic noise in 2032. It is confirmed that no moderate or major increases in road traffic noise across the wider network are predicted.
- 14.129 Operational road traffic noise in 2038 is stated as being lower than in 2047 and therefore the focus is on 2047 when considering long-term impacts.

- 14.130 Paragraph 14.9.277 ([APP-039](#)) concludes that "...traffic noise effects are predicted to be mainly negligible with some minor adverse and negative effects". No significant effects with respect to road traffic noise were found.
- 14.131 Some information or evidence should be provided to support the claim that there would be no significant increases in road traffic noise in 2029. While no significant increases are found for 2032, this year includes the embedded highway improvements listed as mitigation. Therefore, it remains to be demonstrated that without such mitigation significant effects are still avoided.
- 14.132 Paragraph 14.9.255 ([APP-039](#)) highlights one link on the wider network predicted to experience a minor increase in road traffic noise but paragraph 6.3.8 ([APP-174](#)) explains that actually several links are predicted to experience a minor increase in road traffic noise in 2032. While it is explained that none of these links are predicted to experience an increase of more than 3 dB, the possibility of receptors close to these links having noise levels above the SOAEL (where a minor increase constitutes a significant effect) is not considered. Further information on absolute road traffic noise levels for receptors close to links predicted to experience a minor increase should be provided to support the conclusions that there are no significant effects. The explanation, in paragraph 6.3.9 ([APP-174](#)), that such increases are unlikely to be due to the scheme should be supported with a more detailed explanation since the roadside traffic noise levels are higher by a non-negligible amount in the Do-Something scenario.

Concerns with methodology

Overflights

- 14.133 The discussion on overflights is lacking any kind of information on how communities would be affected by the proposed expansion. Figure 14.9.30 ([APP-065](#)) shows analysis where new areas would experience overflights, but no details on the number of overflights are provided. Additionally, Figure 14.9.30 ([APP-065](#)) presents information on "the most common rapid climbing aircraft, the A319" (paragraph 14.9.141 [APP-039]). It is unclear why the A319 was used to illustrate overflights but the A320 was used to illustrate LMax noise levels.
- 14.134 Figures 14.6.7 to 14.6.9 ([APP-063](#)) provide overflight figures from analysis of 2019 data, but no figures are provided for any future scenarios. It is unclear why no other figures have been provided. Figures showing overflights for future scenarios would allow greater understanding of how communities would be affected by the proposed expansion.
- 14.135 Paragraph 2.2.9 ([APP-172](#)) states: "As a simplifying assumption all flights were modelled on the main runway, which implies an

approximation in the flight densities calculated because a proportion (see above) of departures will be shifted 200 m to the Northern Runway. Hence the overflight density analysis is not accurate near the airport, as reflected in the 1 km grid size adopted for quantification. This is considered a reasonable approximation because...”.

- 14.136 Overflights were calculated below 7,000 feet. Noise contours are most affected by aircraft movements below 4,000 feet so it would be helpful to see more detailed overflight contours for aircraft movement is below 4,000 feet. There is an issue that areas affected by overflights from the northern runway are not accounted for in the overflights assessment. Northern runway departure should be included correctly in the calculation of overflights so overflights could be understood in areas close to the airport.

Recommendation:

- 14.137 The Applicant needs to provide refined overflight models for all case years, based on a maximum 100 m grid and with the northern runway departure incorporated. The information needs to be provided for overflights to 4,000 and 7,000’ with the appropriate changes between years shown. Provision of more detailed overflight analysis covering movements up to an altitude of 4,000 feet.

Community Representative Locations

- 14.138 Seven community representative locations were selected to: “...describe the air noise changes expected from the Project in more detail” (paragraph 14.9.150 ([APP-039](#))). There is one community representative location in Horsham (Rusper Primary School) and one location in Crawley (Willow Tree Pre-school).

- 14.139 Community representative locations seem arbitrary and do not provide information on communities that are worst affected by noise as a result of the proposed expansion. As such, they are of limited benefit for understanding likely significant effects.

Noise Sensitive Buildings

- 14.140 Fifty ‘noise sensitive community buildings’ (paragraph 14.9.159 ([APP-039](#))) are identified within the 2032 51 dB LAeq,16h noise contour. It is unclear how these community locations have been selected and how they differ from the ‘Community Representative Location’.

- 14.141 Whilst these locations provide some helpful context on how communities would be affected by LAeq,T noise levels as a result of the proposed expansion, they do not provide any detail at communities where significant effects may be identified. Provision of information on supplementary metrics is required.

Construction Phase - Impacts

Construction Noise

14.142 The CoCP states that the applicant “will seek to obtain” consent under Section 61 Control of Pollution Act 1974. It is imperative that this is obtained by the Applicant and lead contractor prior to work commencing and where the section 61 consenting process identifies more onerous requirements for noise control than those stated in the CoCP then the section 61 process takes precedence over the CoCP.

14.143 Further details of the complaints response procedures for construction works (specifically noise and vibration) should be provided and subject to approval by the LPA. This should include full details of all such complaints being shared with the relevant local authorities.

Positive

14.144 No positive impacts are identified during the construction phase.

Neutral

14.145 No neutral impacts are identified during the construction phase.

Negative

14.146 The negative impacts are listed by local authority:

Crawley

14.147 No residual exceedances of the daytime construction noise SOAEL are identified. Residual exceedances of the night-time construction noise SOAEL are predicted at a single property (275 Balcombe Road) due to works on Balcombe Road Bridge (Works No. 35). Noise insulation would be offered to 275 Balcombe Road to avoid significant effects. As such, there are no identified night-time residual construction noise effects.

Horsham

14.148 15.84 The ES highlights that daytime construction is not expected to exceed the daytime LOAEL or SOAEL ([APP-039](#)) para 14.9.33]. However, periods of night construction will result in properties experiencing noise in excess of the 55dB SOAEL LAeq 1h at a limited number of properties in Bonnetts Lane as a result of the construction of the taxiways and northern runway. It is suggested that this would occur for intermittent periods for up to a total of approximately six months within the three year programme ([APP-039](#)) para 14.9.34]. Sound reduction measures are proposed over and above BPM measures reducing the impact to minor adverse.

14.149 However, there will still be properties above the LOAEL but below the SOAEL for which the effects may still result in disturbance and particularly during occasions of hot weather when windows need to be open. The applicant needs to quantify this and propose suitable mitigation.

Mid Sussex

14.150 No negative construction impacts are envisaged within Mid Sussex.

Construction Traffic Noise

14.151 Increase in road traffic noise as a result of construction traffic are identified; however, no significant effects are identified as a result of construction traffic movements. Appendix 14.9.4 ([APP-174](#)) provides the results of calculations in terms of the change in road traffic noise. No detailed information of baseline flow and construction traffic flows are provided for key road links and no calculations are provided.

Additional detail on the construction traffic noise assessment should be provided.

Positive

14.152 No positive impacts are identified by any District or Borough

Neutral

14.153 No neutral impacts identified by any District or Borough

Negative

14.154 No negative impacts identified by any District or Borough

Recommended Action:

14.155 The Applicant needs to provide detailed information on baseline flow and construction traffic flows for key road links including calculations.

Construction Vibration

14.156 Embedded mitigation measures are detailed in Section 14.8 of Chapter 14 Noise and Vibration [APP-039] these include Best Practicable Means, which are secured in the (CoCP) ([APP-082](#)).

14.157 Table 14.8.1 [APP-039] states that "Use of percussive piling technique have been avoided where practicable" and the construction vibration assessment has been undertaken assuming vibratory sheet piling. However, there is no commitment to avoid percussive sheet piling in the CoCP ([APP-082](#)). The construction noise assessment assumes driven piling, which is not a consistent assumption with the construction vibration assessment. As for construction noise, if percussive piling is required, there should be a requirement for a specific assessment to be undertaken, including justification as to why this is required and identification of appropriate mitigation measures. This should be agreed with the Local Authority prior to commencement of these works.

14.158 Properties may be affected by sheet piling activities at:

- Network Rail Bridge (Work No. 36).
- South Terminal Roundabout (Work No. 35).

- Balcombe Road bridge (Work No. 35).

14.159 The nearest sensitive receptors in Crawley to proposed sheet piling locations are approximately 160m from Balcombe Road bridge. At this distance, no significant vibration effects are anticipated.

14.160 No assessment on vibration effects due to the use of vibratory rollers used during road compaction has been provided. This should be assessed to identify if any significant effects may result from their use. Similarly, vibration effects from percussive sheet piling have not been assessed and the interaction with the construction noise assessment is unclear.

Positive

14.161 No positive impacts are identified by any District or Borough

Neutral

14.162 No neutral impacts identified by any District or Borough

Negative

14.163 No negative impacts identified by any District or Borough

Recommended Action:

14.164 An explicit requirement to avoid use of percussive piling but where geotechnical conditions dictate **its** use then the justification and specific assessment of impacts and mitigation is undertaken and agreed with the LPA prior to commencement of work.

14.165 Provide an assessment on vibration effects due to the use of vibratory rollers used during road compaction and confirm if any significant effects may result from their use.

14.166 Provide an assessment of vibration effects from percussive sheet piling and ensure this is appropriately represented in the construction noise assessment.

Operational Phase - Impacts

Location Specific Impacts

14.167 In addition to the impacts described below two location specific assessments are contained within Appendices G and H providing information about potential impacts of air noise on the towns and villages affected in the Horsham District.

Air Noise Impacts: Air Noise Reductions to South of Airport

14.168 The Applicant states that there are beneficial noise effects to the south of the airport as follows:

- Reduction in noise from -3dB to -6dB at Lowfield Farm on Charlwood Road.

- Reduction in noise from -2dB to -3dB at approximately 20 houses on Charlwood Road, Poles Lane and Bonnetts Lane.
- Reduction in noise from -1dB to -2dB Charlwood Road, Bonnetts Lane and houses on the north tip of Ifield near the Crawley Rugby Club.

14.169 These beneficial noise effects are said to be due to a reduction in aircraft movements on the southern runway. However, no information on fleets or how they would be split between the north and the south runway are provided and this is not considered to have been demonstrated.

14.170 Further information is required regarding the validation of air noise modelling, including aircraft fleet assumptions and split between the runways. It is unclear if this benefit, if any, is outweighed by the changes as a result of the proximity and use of EATs.

Positive

14.171 The applicant reports benefits to Crawley and Horsham areas but evidence is required to support this.

Neutral

14.172 No neutral impacts on noise and vibration are identified during the operation phase.

Negative

14.173 Negative impacts are stated by Borough and District below.

Crawley

14.174 Properties identified as experiencing significant noise effects based on the primary metric are within the Inner Zone Noise Insulation Scheme and would be provided with an insulation package. However, it is acknowledged that insulation would not be sufficient to mitigate disturbance in outdoor areas so significant residual effects are identified.

14.175 Residual significant noise effects are identified as follows:

- Properties at Balcombe Road and Peeks Brook Lane are predicted to have daytime noise increases of greater than 1 dB above SOAEL (and these are locations already in excess of 60 $L_{Aeq\ 16h}$).

Horsham

14.176 There are no identified significant residual effects in Horsham in the area immediately to the South of the airport but there are effects associated with the departures and arrival route and the proposed increase in use of Route 9 (WIZAD) discussed elsewhere. It should be noted that certain supplementary noise metrics were neither produced or used when identifying significant effects.

Mid Sussex

14.177 There are no identified significant residual effects in Mid Sussex. However, there is uncertainty over this conclusion as supplementary noise metrics were not used when identifying significant effects.

Recommended Actions:

14.178 Additional model information must be provided including fleet mix, runway mode assumptions, runway usage assumptions and cumulative impact of air noise with ground noise.

14.179 Overflight metrics must be produced for all assessment years and be considered in the assessment of significant effects.

Air Noise Impacts: Changes to Population Exposed to Daytime SOAEL

Positive

14.180 No positive impacts identified.

Neutral

14.181 No neutral impacts identified.

Negative

14.182 Paragraph 14.9.93 ([APP-039](#)) identifies that: *"In 2032, the population within the SOAEL Leq, 16 hour day 63 dB contour is predicted to rise from approximately 400 - 500 in the base case to approximately 500 - 600 with the Project, compared against approximately 500 people in 2019. These population counts are rounded to the nearest 100, and are discussed in more detail below"*.

14.183 There are new properties exposed to daytime $L_{Aeq,16h}$ noise levels above SOAEL than in the 2019 baseline scenario. These properties should be identified.

Paragraph 14.9.112 ([APP-039](#)) identifies that: *"In 2032, the population within the SOAEL Leq, 8 hour night 55 dB contour is predicted to rise from the range of approximately 900 - 1,100 in the base case to approximately 1,000 - 1,200 with the Project, and remain below the approximately 1,250 people in 2019"*.

Air Noise Impacts: WIZAD

- 14.184 Chapter 14: Noise and Vibration ([APP-039](#)) and Chapter 18: Health and Wellbeing [APP-043] make reference to flight paths not changing, with health and noise assessments made on that basis.
- 14.185 However, a substantial change to Route 9 (WIZAD) occurs. This is currently rarely overflowed, with its use limited to between the hours of 07:00 and 23:00, and then it is used only as a tactical offload route in the event of congestion to the north.
- 14.186 Paragraph 2.1.3 ([APP-172](#)) states: *"Route 9 (WIZ) is little used at present, but is forecast to be used by about 8% of departures by 2032 in the base case, ie without the Project. Its use is expected to gradually rise to ease growing congestion in the London area. It is not expected to be used at night"*.
- 14.187 However, the Promoter has stated that because of the baseline expansion of the airport it is compelled to use the route because in essence the airport will be creating too much traffic and this will create airspace congestion. This is a substantial variation to the way in which the route was intended to be used.
- 14.188 The reason the noise preferential routes exist is to provide certainty as to which areas will be exposed to aircraft noise and hence the limitation on their use. To re-interpret them in this way defeats their purpose and reasonable decisions made by the Planning Authority in trying to balance competing demands for land needed for other vital purposes.
- 14.189 Not only does the proposal seem contrary to air navigation instruction, but also the Noise Policy Statement for England, UK common law and the ICAO Balanced Approach.
- 14.190 Looking further at what has been presented the effects of the change appear to be understated and a large proportion of Horsham town will essentially be newly overflowed or experience aircraft noise for the first time on a regular and frequent basis, with about 65-70 % of properties experiencing daytime L_{Amax} levels in excess of 60 dB, including committed development in the north of Horsham District as well as housing close to the town centre. Appendix G contains a location specific assessment which illustrates the need to control the use of WIZAD through the DCO.
- 14.191 Should the Applicant seek to make use of WIZAD this must be

modelled based on 100% Westerly departure for the typical peak summer day with slow transition fleet. The metrics that should be modelled include:

- the $L_{Aeq,16h}$ in 3dB bands down to 45 $L_{Aeq,16h}$,
- the numbers of people within each of the 3dB bands,
- the N above range from N70 in 5dB bands to N45 with population exposure in each band.
- Overflight contours for 7,000' and max height of 4,000' (for baseline and all assessment years).
- Average number of daily movements broken down by hour
- Difference contours between baseline and 2032 for the above.
- Population count for those who are overflow

14.192 It may also be valuable to model a period shorter than 16 hours in order to demonstrate the worst effects across the anticipated 4 hour morning departure period. While this relates to only a proportion of the day, the use of this route is over a school facility and the effects on the school should be fully assessed.

Recommendation:

14.193 The Applicant should provide the additional detailed information to inform the impact of the use of Route 9 (WIZAD).

14.194 Appropriate controls should be placed on the use of WIZAD including limiting the daytime use similar to existing and a prohibition on night and evening use. This should be secured as a commitment in the DCO.

Air Noise Impacts: Changes to Lden

14.195 Annual noise contours have been used to determine if extra capacity would affect noise levels during periods outside of the 92-day summer period. It is hard to draw any meaningful conclusion from the analysis of annual contours. Paragraph 14.9.139 ([APP-039](#)) identifies that, in 2032, increases in Lden contours are the same as the increase in $L_{Aeq,16h}$ noise contours; however, L_{night} contours increase by 11-12%, which is larger than the increase in $L_{Aeq,8h}$ contours. This suggests that there is a larger increase in annual night-time movements than in the 92-day summer period.

Recommendation:

14.196 The Applicant should provide clarification on seasonality during the annual night-time period and whether a larger increase in contour size warrants any identification of significant effects based on changes in L_{night} levels. This should be completed for all assessment years.

Ground Noise Impacts

14.197 Table 14.9.16 of ES Chapter 14 ([APP-039](#)) compares Baseline with Project and indicates a substantial change in N65 events for Bonnetts Lane (Horsham), Lowfield Heath (Crawley), Rowley Farm(Crawley). Table 14.9.15 states the maximum sound levels experienced (Lmax).

14.198 Noting the concerns expressed over the assessment of ground noise in the approach the following impacts have been identified at this time.

Positive

14.199 No positive impacts identified.

Neutral

14.200 No positive impacts identified.

Negative

14.201 On a local authority basis:

Crawley Borough

14.202 For Rowley Farm, the ground noise events would get louder under Easterly operation during the day when they would increase from 26 to 97 events with project, on Westerly operations during the night the increase would be 74 to 194 events with project and from 80 to 93 on Easterly operation at night.

14.203 Residual daytime and night time (Paragraph 14.9.238 ([APP-039](#))) significant effects are predicted at Lowfield Heath and Rowley Farm.

14.204 In accordance with Table 14.9.14 ([APP-039](#)), residual daytime significant effects should also be identified at (12) Tinsley Green.

Horsham District

14.205 In the interpretation of the results there are clearly additional effects on the Bonnetts Lane area due to increases in the L_{Aeq} under certain conditions and also the $L_{A_{max}}$ both of which are directly as a result of the Northern Runway Project.

14.206 For Bonnetts Lane, during the day the events exceeding the 65dB would increase from 1 to 59 (under Westerly operations),

conversely Easterly operations would decrease from 45 to 9 events. A typical split would be 72:28 Westerly to Easterly. This equates to an additional 11460 events above 65 dB each year. According to these figures during the night period there would be a reduction of 1120 events from taxi-ing.

- 14.207 In accordance with Table 14.9.14 ([APP-039](#)), residual daytime significant effects should also be identified at (8) Bonnetts Lane.

Mid Sussex District

None identified.

Recommendation:

- 14.208 The Applicant needs to complete further substantial work on the ground noise assessment and this section will be updated following that.

Fixed Plant Noise

- 14.209 Noise limits have been set to aid the design of fixed plant at locations that would be affected by fixed plant noise. These limits are set with reference to guidance in BS 4142:2014+A1:2019 at the measured background noise level and defined in Table 7.1.3 ([APP-176](#)). It is uncertain where these noise limits are secured.
- 14.210 Planning Noise Advice Document: Sussex states: "The rating level of the industrial or commercial sound source should, where practicable, achieve a level no greater than the representative background sound, when measured in accordance with BS 4142:2014 + A1: 2019. There may be instances, for specific sites, where a rating level below background is deemed appropriate".
- 14.211 Environmental Statement Appendix 14.9.3: Ground Noise Modelling ([APP-173](#)), Page 16 Section 7 refers to the consideration of background levels and having regard to the Planning Noise Advice Document: Sussex (PNADS). It refers to measures to prevent creeping background sound levels and PNADS states that a rating level below the background may be required. The Authorities' view on this was that the design standard would be decided subsequently, but that a general view was held that no additional noise impact should occur, meaning a more rigorous standard might be applied than is otherwise indicated by the comments in paragraph 7.1.3 of the ES ([APP-173](#)).
- 14.212 Paragraph 7.1.3 ([APP-176](#)) also states that consultation has been undertaken with local authorities; however, no details on consultation are provided. As such, there remains some uncertainty about whether rating noise limits for fixed plant are set at an appropriate level.

Suitability of measures proposed by the applicant to prevent, avoid, minimise (mitigate) and compensate.

Operational Controls and Existing Planning Controls

14.213 The Applicant has made no real attempt to identify existing planning controls or good operational practice to control ground borne noise emissions. Therefore, there are only limited proposals and this requires considerable work.

Noise Insulation Scheme

14.214 This was not considered suitable and further discussion is contained in the next section on Proposals for alternatives.

Noise Envelope

14.215 This is not considered fit for purpose and is discussed further under Proposals for alternatives.

Construction Noise

14.216 Embedded mitigation measures are detailed in Section 14.8 ([APP-039](#)) these include Best Practicable Means, which are secured in the Code of Construction Practice (CoCP) ([APP-082](#)). The CoCP also includes a noise insulation scheme and a commitment to obtaining prior consent through the Section 61 process.

14.217 Eligibility for the noise insulation scheme is on the basis that predicted or actual noise exceeds any of the relevant thresholds for:

- a period of 10 or more days of working in any 15 consecutive days during construction; or
- for a total of 40 days or more in any 6 consecutive months during construction.

14.218 The key qualifying noise levels are as follows:

Noise Insulation:

- Leq 10 hr day 75dB
- Leq 1 hr night 55dB

Temporary Rehousing:

- Leq 10 hr day 85dB
- Leq 1 hr night 65dB

14.219 Further mitigation measures are identified in Section 14.9 ([APP-039](#)) and are summarised as follows:

- 5dB reduction applied to sheet piling, breakers, bulldozer, compactors, cranes, dump trucks, dumpers, excavators, graders, loaders etc.
- Noise barriers at:
 - A23 Brighton Road Bridge – along the southern side of the utilities diversion bridge.
 - A23 London Road Bridge – along the eastern side of the temporary footpath.
 - Airport Way Rail Bridge – on the northern side of the eastbound carriageway.
 - Car Park X – along the southern site boundary.

14.220 It is unclear how this specific mitigation and the resulting outcomes in terms of significant effects from construction noise would be secured. The CoCP ([APP-082](#)) contains details of Best Practicable Means (BPM); however there is nothing to secure the assumptions in the construction noise assessment, or to ensure that noise significant effects resulting from the construction do not exceed those identified in the Environmental Statement. Similarly, the locations of noise barriers are not provided, nor are the barriers secured in the CoCP or the DCO ([PDLA-004](#)).

Recommendation:

14.221 Applicant to make explicit how mitigation is to be secured and how the impacts will be avoided.

Proposals for alternative / additional measures to better address the identified impacts

Ground Noise

14.222 Consideration should be given to the installation of an earth bund to the south of the existing runway to protect Horsham and Crawley from ground noise.

14.223 Once mitigation measures are secured they need to be appropriately phased to ensure that the mitigation is effective for construction as well as operational phases.

14.224 Properties that may experience cumulative levels of air and ground noise that would include them in the NIS Outer Zone should be

monitored and offered an insulation package. A commitment should be made for annual monitoring of combined air noise and ground noise levels at specified locations to test whether properties would qualify for insulation.

Ground Noise Management Plan

14.225 A Ground Noise Management Plan needs to be produced with the aim of preventing, avoiding and minimising the total adverse effects of ground noise on the surrounding area. The plan will form the basis of effective ground noise management.

14.226 It will include the following specific items and any other as may be required or agreed with the Local Planning Authority:

- Predictive ground noise contours for each year.
- Verification monitoring and confirmatory actual ground noise modelling.
- A list of all mitigation, be they operational, physical, technological or any other mitigation.
- Performance standards for the mitigation and how the performance standards are enforced.
- Engagement process for monitoring and reporting to LPA and incorporating feedback including undertaking of further studies and provision of additional mitigation.

14.227 This shall operate in a complementary fashion to the air noise envelope.

Air Noise - Noise Envelope

14.228 A Noise Envelope has been put forward. However, the noise envelope does not fulfil the purpose for which it is intended and nor does it fulfil the majority of characteristics stated in CAP 1129:

14.229 A noise envelope should, as a minimum:

- be clearly defined.
- be agreed among stakeholders.
- be legally binding.
- not be compromised by the lack of up-to-date understanding of the relationship between annoyance and the exposure to aircraft noise
- take account of new technology

- have proportionate aims which are appropriate for the airport to which it applies i.e. to permit growth, maintain a status quo, or manage a reduction in noise impact.
- 14.230 The Authorities note that these are minimum criteria and that other criteria may well be appropriate and reasonable to include as design parameters for the noise envelope.
- 14.231 A clear aim has not been agreed with the stakeholders and the noise envelope as proposed allows the noise climate around the airport to deteriorate whilst growth occurs and there is no certainty in the longer term (especially in the third noise envelope period) that the limits will not be relaxed by the airport as there is an increase in aircraft movements. This is contrary to the Government Aviation Policy of sharing the benefit of the improvements in technology with the local community and the ICAO Balanced Approach.
- 14.232 The noise envelope is predicated on an area under a noise contour expressed in km² and the area not being exceeded. However, for certainty, the limits of the noise envelope, if bound by the contour must be the physical extent of that contour in a baseline year taking into account the uncertainties associated with the modelling. It is possible for an area to remain broadly the same or shrink but new or additional people be affected as it moves subtly. The boundary of a noise contour cannot change without approval. To agree to an area, while helpful in some respects undermines the rationale for a noise envelope in achieving certainty.
- 14.234 To ensure the noise envelope is workable, enforceable and provide certainty, limitations must be set across all times of the year, any operational seasons e.g. summer and winter and even hours of the day and night. To be effective the disparate controls that exist under other regimes need to be incorporated into noise envelope, for example the night noise regime including the existing quota count and aircraft movements. It is noted that the L_{night} noise indicator shows greater increases as a result of the scheme than are seen for the summer period L_{Aeq,8hr} indicator. This indicates that simply controlling the L_{Aeq,8hr} noise contour may not be sufficient to control noise impacts throughout the year.
- 14.235 In addition, we do not consider that the noise envelope as proposed achieves the aim of avoiding exposure as required by the Noise Policy Statement for England: the area of the noise envelope is predicted to increase; and where an exceedance occurs there is a delay in remedying it resulting in exposure that could have been prevented if appropriate measures and controls were in place. There is also the possibility of a breach /compliance cycle with no resolution and recurring breaches.
- 14.236 The noise metrics (as defined in the noise envelope) need to be agreed with the local authorities, including monitoring and reporting

of operational metrics, for example detailed fleet quota count information and aircraft movements by period. This will provide assurance that there is a reasonable prospect of achieving the limit and allow action to be taken accordingly at an early stage if it appears that noise targets will be missed.

- 14.237 It is noted that the end of the 1st Noise envelope period is defined as the end of the ninth year of the operation of the NRP; or the end of the year when annual commercial ATMs reach 382,000 (whichever is the sooner). This should also include a threshold based on total ATMs as non-commercial ATMs may contribute significantly to the air noise levels generated by the operation of the airport.
- 14.238 Growth can practically only be controlled by restricting slot release and slots should only be released on the attainment not only of noise metrics but also upon completion of noise mitigation including the installation of noise insulation in the properties worst affected.
- 14.239 Consideration should be given to the inclusion of suitable threshold values below the noise envelope limits themselves. These thresholds should act as triggers above which the airport would be required to demonstrate how compliance will be maintained and/or limit the rate of future growth of the airport to ensure compliance.
- 14.240 The noise envelope has inadequate sanctions and enforcement model to ensure that the processes are complied with in delivering the noise envelope as well as achieving compliance with stated limits. There is no local accountability and oversight despite the local authorities seeking a role in the process and having experience and expertise in regulation of this type.
- 14.241 A body, to be fully funded by the applicant, should be set up to oversee, develop and enforce the noise envelope. This body should be provided with appropriate enforcement powers and include appropriate local authorities.
- 14.242 The Applicant has elected to maintain a slow transition fleet for the extent of the noise envelope. Limits based on central case fleet should be adopted as this is more stringent and will encourage the airport to work with airlines to achieve the transition and incentivise the airlines as well.

Recommendations:

- 14.243 The Noise Envelope should be reviewed and adapted reflecting the above comments. The noise envelope should adopt an approach similar to the Luton Green Controlled Growth Framework. Growth at the airport would be contingent on the experience of noise by communities being lower than the baseline, allowing the benefits of new technology to be shared between the airport and communities. Failure to adhere to these agreed limits will result in the cessation of further expansion (i.e. release of aircraft slots) until the agreed

limits are being complied with.

Noise Insulation Scheme

- 14.244 The noise insulation scheme is discussed in ES Appendix 14.9.10: Noise Insulation Scheme ([APP-180](#)).
- 14.245 Insulation should only be used as a last resort. It fails to protect the use of the outside space of a property and reduces the amenity for residents both within and outside the property at all times of day and the night. It increases the risk of overheating with resultant health impacts including risk of increased morbidity and mortality.
- 14.246 In light of the information collated and presented for the current application, the current noise insulation scheme appears not to afford adequate protection for residents. The scheme needs to be substantially revised to be compliant with the I.C.A.O. Balanced Approach existing UK policy. Appendix H contains an assessment of the Project's potential impact on one location and demonstrates why changes are necessary.
- 14.247 The Noise Insulation Scheme is the main form of mitigation and is summarised as follows:

Inner Zone (larger of the 63 dB $L_{Aeq,16h}$ or the 55 dB $L_{Aeq,8h}$ contour)–

- Up to £20,000 for replacement acoustic glazing or internal secondary glazing to noise sensitive rooms. Replacement doors to noise sensitive rooms will also be offered if necessary. Acoustic upgrading of bedroom ceilings where practicable.

Outer Zone – provision of acoustic ventilators or if single glazed windows replacement glazing and ventilators to noise sensitive rooms of value up to:

- Leq 16 hr 54 to 57 dB £3,500.
- Leq 16 hr 57 to 60 dB £5,000.
- Leq 16 hr 60 to 63 dB £8,000.

- 14.248 The concerns with the scheme as proposed is that:

- the amounts are considered to be inadequate
- The amounts are not index linked against inflation
- It is unclear whether or not VAT is included in the qualifying amount
- no provision is made to prevent overheating by applying a cooling hierarchy and providing suitable adaptation to

properties. Acoustic ventilators do not fulfil this requirement.

- limiting the grant to specific works is likely to limit the uptake and also the effectiveness
- where people do not take up the initial offer, it is not clear that they can make an application subsequently
- given recent decisions eg Manston; and national policy developments in relation to annoyance, the effects of night time noise and clarification of the need to address all adverse effects not simply those that are considered to be significant then the noise insulation scheme offers need to be extended.

14.249 The noise insulation scheme will be critical to compliance with policy and avoiding health impacts. Unlike the noise envelope there are no proposals to monitor the effectiveness of this scheme. As a minimum the airport should fund appropriate short and long term studies including:

- a) Residents' satisfaction with the scheme, whether it is achieving the intended goal and how the scheme can be improved,
- b) Determination as to whether the scheme is contributing to other health effects and consideration of how they can be avoided (with a prompt introduction of measures to address these unwanted effects where they are identified).

14.250 The inner zone should be extended to extent of the following contours:

- 60 dB $L_{Aeq,16h}$ day
- 48 dB L_{Aeq} 8h night.
- One additional awakening

14.251 The package for the outer zone should be improved and extended across the ranges:

- 51-60 $L_{Aeq,16h}$ r day
- 40-48 L_{Aeq} 8h night

14.256 Apart from additional noise induced awakenings all contours should be provided on single mode basis.

14.257 A mechanism for the adjustment of the financial values of the above packages in line with inflation should also be included. Consideration should also be given to ongoing running, repair, maintenance, and when required replacement, costs of ventilation systems provided under this scheme. These additional costs should be incurred by the airport to avoid an unnecessary additional burden on householders.

14.258 The designation of the extent of the inner and outer zones should be by agreement with the Local Planning Authority. Rather than rely on the precise extent of a polygon on a geographic information system produced by a model the extent of the insulation zone should be adjusted to take into account the extent of any built up areas and the zone extended accordingly. This adjustment existed under the previous scheme but it appears to have been dropped under the current proposal.

14.259 The presumption should be to provide insulation on the basis of predictive techniques so as to avoid exposure occurring for all forms of noise. At present there is provision to monitor ground noise after operations start. This does not avoid effects occurring.

Recommended Action:

14.260 The Noise Insulation Scheme should be revised incorporating all the above comments.

Air Noise: WIZAD

14.261 Night-time restriction of the WIZAD route should be a DCO commitment to ensure the use remains as emergency use. The use of WIZAD during normal daytime operation should also be controlled to ensure that the expansion of airport operations are not reliant on use of this route.

The Identification of Other Measures

14.262 As new information comes to light we reserve the right to update these proposals through representations and submissions as appropriate as the application progresses.

15. Climate Change

Summary

- 15.1 This section focuses on climate change related impacts as follows:
- A. Project related Climate Change Resilience (CCR): The resilience of the design, construction and operation of the Project to projected future climate change impacts and,
 - B. In-combination Climate Change Impacts (ICCI): The combined effects of the Project and potential climate change impacts on the receiving environment and community.
- 15.2 In summary, there were no positive or negative climate related impacts identified for the construction phase, only 'insignificant' neutral impacts which with adequate mitigation measures implemented would be sufficient in mitigating these impacts.
- 15.3 Regarding the operational phase, there were no positive or neutral climate impacts identified, but there were several negative impacts, in the form of climate-related risks. Of the identified negative impacts, none were deemed significant, and appropriate mitigation measures were identified.

Policy Context

National Policy Statements

Airports National Policy Statement (ANPS):

- 15.4 The Airports National Policy Statement (ANPS) sets out the Government's policy on the need for new airport capacity in Southeast England. While the ANPS is only directly applicable to Heathrow Airport, it has a bearing on other airports, particularly those in the southeast making best use of their existing runways, and the assessment of effects.
- 15.5 In reference to climate change projections, Paragraph 4.43 in ANPS states: "Adaptation is therefore necessary to deal with the potential impacts of these changes that are already happening. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure."
- 15.6 Paragraph 4.45 in ANPS sets out the requirement for new airport infrastructure to consider the impacts of climate change when planning design, build and operation due to the typical long-term nature of the infrastructure. Stating that: "Any accompanying environmental statement should set out how the proposal will take

account of the projected impacts of climate change.”

- 15.7 Paragraph 4.46 states that detailed consideration must be given to potential impacts of climate change using the latest UK Climate Projections available at the time, and to ensuring any environmental statement that is prepared identifies appropriate mitigation or adaptation measures. The ANPS states that this should cover the entire estimated lifetime of the new infrastructure and should a new set of UK Climate Projections become available after the preparation of any environmental statement, the Examining Authority should consider whether it needs to request additional information from the applicant.
- 15.8 Paragraph 4.47 of the ANPS states that: “Where transport infrastructure has safety-critical elements, and the design life of the asset is 60 years or greater, the applicant should apply the latest available UK Climate Projections, considering at least a scenario that reflects a high level of greenhouse gas emissions at the 10%, 50% and 90% probability levels, to assess the impacts of climate change over the lifetime of the development.”
- 15.9 In Paragraph 4.48 the ANPS states that “the applicant should demonstrate that there are no critical features of infrastructure design which may be seriously affected by more radical changes to the climate beyond those projected in the latest set of UK Climate Projections.” It also states that any potential critical features should be assessed and this should take account of the latest credible scientific evidence, giving the of sea level rise. The paragraph also states that the applicant should demonstrate that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime through potential further mitigation or adaptation.
- 15.10 Paragraph 4.49 outlines the following for adaptations measures to be assessed against;
- Latest set of UK Climate Projections
 - Most recent UK Climate Change Risk Assessment
 - Consultation with statutory consultation bodies
 - Any other appropriate climate projection data
 - Any adaptation measures must themselves also be assessed as part of any Environmental Impact Assessment and included in the environmental statement, which should set out how and where such measures are proposed to be secured. Paragraph 4.50 of the ANPS states: “If any proposed adaptation measures themselves give rise to consequential impacts, the Secretary of State will consider the impact in relation to the application as a whole and the assessment principles set out in the Airports NPS.”
- 15.11 Paragraph 4.52 allows for the option of allowing the applicant to implement adaptation measures at a later date should the need

arise, where introducing the measure during construction would have an adverse effect on the project or surrounding environment. This is to be at the discretion of the Secretary of State.

National Policy Statement for National Networks (NPSNN)

- 15.12 The NPSNN sets out the need for development of road, rail and strategic rail freight interchange projects on the national networks and the policy against which decisions on major road and rail projects will be made.
- 15.13 The requirements as per NPSNN regarding Climate Adaptation are the same as the ANPS (as detailed above).

Local Plan Policy

Crawley Borough Local Plan 2015-2030 (CBLP)

- 15.14 The key policies of relevance are:
- 15.15 Policy SD1 'Presumption in Favour of Sustainable Development' states: "Development will be supported where it meets the following strategic objectives" including "": 1. Progress towards Crawley's commitment to being carbon neutral by 2050 and adapts to climate change.
- 15.16 Policy ENV6 addresses sustainable design and construction and states that: "For other locally-specific climate change issues relating to Crawley, all development should consider how it will: vi. Tackle the serious water stress in the borough (see Policy ENV9); vii. Cope with future temperature extremes and ensure it does not unduly increase the impact of heatwave events."
- 15.17 Building on ENV6, ENV8 addresses Development and Flood Risk, stating that "Development proposals must avoid area which are exposed to an unacceptable risk from flooding, and must not increase the risk of flooding elsewhere. "With the main flood risks in Crawley being from fluvial flooding, localised runoff and sewer flooding.
- 15.18 Paragraph 7.59 of the CBC plan states that: "Climate change impacts are also expected to increase the risk of flooding over the coming decades, with an increase in the frequency of wet, mild winters anticipated. Therefore, it is essential that planning decisions are informed by, and take due consideration of, the flood risk posed to (and by) future development."
- 15.19 The National Planning Policy Framework (NPPF) requires local planning authorities to take a pro-active approach to managing impacts associated with climate change, including flood risk. Paragraph 7.60 of the CBLP details: "To minimise risks to property, inappropriate development should be avoided in areas which are at greatest risk of flooding, and directed to sequentially preferable

areas of lowest risk. Where development is necessary in areas of flood risk, care should be taken to ensure it can be made safe without increasing flood risk elsewhere.”

- 15.20 The CBLP highlights The Crawley Strategic Flood Risk Assessment (SFRA) as a key tool which draws upon the Environment Agency Flood Map for Development to identify areas in the borough where the risk of flooding is greatest in Paragraph 7.61. As required by the NPPF, the SFRA provides a local evidence base through which the sequential and exceptions tests will be assessed, and will, therefore, play a key role in guiding the most vulnerable forms of development away from areas where flood risk is greatest.
- 15.21 Policy ENV9 acknowledges that Crawley is situated within an area of serious water stress, and development should, therefore, plan positively to minimise its impact on water resources and promote water efficiency. Policy GAT1 also requires satisfactory safeguards to be in place as the airport grows including flooding and climate change.
- 15.22 Sustainability Objectives are included in Appendix A of the Local Plan as an excerpt from the Crawley Sustainability Report, which includes the following objective regarding climate adaptation: *“To adapt to the effects of climate change, by reducing the negative consequences of changes in the climate on people and the environment, or by achieving a positive outcome from the effects of climate change.”*

2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

- 15.23 The mCBLP contains a suite of similar updated policies to mitigate against and adapt for a changing climate. CBC declared a Climate Emergency in 2019, and Paragraph 2.34 sets out the borough’s target of carbon neutrality by 2050, whilst achieving net zero greenhouse gas emissions from council activities by 2040. Key policies include:
- SD1 Presumption in Favour of Sustainable Development’
 - SDC1 Sustainable Design and Construction
 - SDC3 Tackling Water Stress
 - EP1 Development and Flood Risk
 - GAT1 Development of the Airport with a Single Runway

Horsham District Council (HDC)

- 15.24 The Horsham District Planning Framework is the planning document for the District and a number of policies relate to the topic of

climate change. Strategic Policy 35 states that: "Development will be supported where it makes a clear contribution to mitigating and adapting to the impacts of climate change and to meeting the district's carbon reduction targets". It outlines a list of measures which should be used to mitigate the effects of climate change, and design measures to contribute to climate change adaptation. Strategic Policy 38 deals with Flooding, requiring a sequential approach to the management of flood risk. A number of other policies deal indirectly with climate change mitigation and adaptation, such as Strategic Policy 24: Environmental Protection, Policy 31: Green Infrastructure and Biodiversity, Strategic Policy 36: Appropriate Energy Use, Policy 37: Sustainable Construction and Policy 40: Sustainable Transport.

- 15.25 In June 2023 Horsham District Council declared a climate and ecological emergency and this is core to Horsham District Council's Climate Action Strategy, which supports the Council Plan 2023-2027 and outlines a pathway by which the District can become net zero and climate resilient by 2050.

Mid Sussex District Council (MSDC)

- 15.26 The Mid Sussex District Plan (2018) has a strategic objective "To promote development that makes best use of resources and increases the sustainability of communities within Mid Sussex, and its ability to adapt to climate change". This is being delivered through the overarching strategy of the Plan, along with specific policies that increase resilience to the effects of climate change. Such policies include DP37: Trees, Woodland and Hedgerows; DP39 Sustainable Design and Construction; DP40: Renewable Energy Schemes; DP41 Flood risk and Drainage and DP42: Water Infrastructure and the Water Environment.
- 15.27 In 2022 Mid Sussex approved a new Sustainable Economy Strategy and Action Plan 2022 – 2025 to support sustainable economic growth. The Strategy sets out how sustainable development in the District can provide economic prosperity while supporting its journey to net zero.

Other Relevant Local Policy

- 15.28 *Crawley Borough Council: Planning and Climate Change SPD* (Adopted October 2016) providing guidance on how development should be designed to comply with policies ENV6, ENV7, ENV8, ENV9, IN3, CH3 and ENV3 (Link: [Planning and climate change SPD | Crawley GOV](#))

Table 15.1: Summary of Impacts – Climate					
	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it (Change/Requirement / Obligation)	Policy Context
1	Extreme weather and climate events have been identified as creating possible negative impacts for the construction phase. E.g. construction worker health and safety and damage to construction equipment.	C	Neutral	<p>The Applicant has deemed the embedded mitigation measures sufficient, assessing no impacts as Significant and therefore no further mitigation measures required.</p> <p>The embedded mitigation for construction includes the risk assessment of extreme weather impacts the contractor is required to undertake as set out in the Code of Construction Practice (CoCP). This CoCP will also provide details on measures considered necessary to manage extreme events include flooding. Note that these measures will be linked to the Gatwick Airside</p>	Paragraph 4.45 in the ANPS sets out a requirement for new airport infrastructure to consider the impacts of climate change when planning design, build and operation due to the typical long-term nature of the infrastructure.

Table 15.1: Summary of Impacts – Climate					
	Description of Impact	Construction (C) /Operation (O)	Negative/ Neutral/Positive	Required mitigation and how to secure it (Change/Requirement / Obligation)	Policy Context
				Operations Adverse Weather Plan. The construction related mitigation is therefore secured in the CoCP.	
1	The in-combination impacts of construction of this development with climate change could exacerbate environmental impacts to air, land, biodiversity, water, and human health receptors.	C	Neutral	<p>The construction related ICCI impacts identified by the Applicant have been assessed as Insignificant due to the embedded mitigation measures secured via the Code of Construction Practice (CoCP).</p> <p>However, the Applicant needs to better demonstrate what measures they will commit to put into place to reduce ICCI impacts around water stress for example, how will the proposed developed meet the BREEAM criteria for water efficiency. Note</p>	Policy ENV9 in the CBLP

Table 15.1: Summary of Impacts – Climate					
	Description of Impact	Construction (C) /Operation (O)	Negative/ Neutral/Positive	Required mitigation and how to secure it (Change/Requirement / Obligation)	Policy Context
				that the CBLP requires non-domestic buildings to achieve BREEAM excellent for water credits where financially and technically possible, including addressing maximum water efficiencies under the mandatory water credits (ENV9).	
1	The Applicant identified a variety of risks arising from climate change posing risk during the operational phase of the development. Such as extreme weather events affecting aircraft operations.	O	Neutral	The Applicant has deemed the embedded mitigation measures sufficient, assessing no impacts as Significant and therefore no further mitigation measures required.	The National policy documents including the ANPS and NPSNN.
1	The proposed development exacerbating	O	Neutral	The operation related ICCI impacts identified by the	ENV Policy 9 of CBC 2030 Local Plan

Table 15.1: Summary of Impacts – Climate

	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it (Change/Requirement / Obligation)	Policy Context
	environmental impacts to air, land, biodiversity, water, and human health receptors			<p>Applicant have been assessed as Insignificant due to the embedded mitigation measures.</p> <p>However, the Applicant needs to better demonstrate what measures they will be committing to putting into place to reduce ICCI impacts around water stress for example, how will the proposed developed meet the BREEAM criteria for water efficiency. Note that the CBLP requires non-domestic buildings to achieve BREEAM excellent for water credits where financially and technically including addressing maximum water efficiencies</p>	

Table 15.1: Summary of Impacts – Climate					
	Description of Impact	Construction (C) /Operation (O)	Negative/ Neutral/Positive	Required mitigation and how to secure it (Change/Requirement / Obligation)	Policy Context
				under the mandatory water credits (ENV9).	
1	The Urban Heat Island effect was identified as a potential impact of the development. This would exacerbate the effect of climate change in the area.	O	Neutral	The Applicant has deemed the embedded mitigation measures sufficient, assessing no impacts as Significant and therefore no further mitigation measures required. However, the Applicant did note that further monitoring is required for the medium risks related to Urban Heat Island effect to check if in the future they would become high risk and therefore significant.	ENV Policy 6 of CBC 2030 Local Plan

Construction Phase – impacts

Positive

15.29 There are no identified positive impacts during the construction phase.

Neutral

15.30 In regard to Climate Change, the assessment presented in Chapter 15 of the ES (Climate Change) looks at:

- Climate Change Resilience (CCR): at the resilience of the construction of the Project to projected future climate change impacts,
- In-Combination Climate Change Impacts (ICCI): the combined effects of the Project and potential climate change impacts on the receiving environment and community during construction.

15.31 The construction impacts considered can be broadly classified as extreme weather/climatic events (winds, heatwaves, low temperatures, droughts, intense rainfall events, lightning) that:

- exacerbating health and safety of construction workers and impacts on nearby sensitive community receptors (CCR Assessment).
- exacerbating environmental impacts to air, land, biodiversity, water, and human health receptors (ICCI Assessment).
- negatively affecting performance of construction equipment/ delays to construction programme (CCR Assessment).

15.32 The Applicant's assessments concludes that "No Very High or High risks (considered significant) were identified in the assessment., therefore no significant effects are expected."

15.33 An initial review of this assessment deemed the construction risks identified to be limited and that further detail could be added. In response to this, in the draft Statement of Common Ground for Crawley the Applicant stated that "appropriate mitigation measures are in place to mitigate these hazards and risks. These are detailed within the ES Appendix 5.2.3: Code of Construction Practice (APP-082) which details the methods in place to ensure construction can be sustained during adverse weather events."

15.34 Whilst more detail could be added to the construction impacts identified, the Applicant's assessment of construction impacts does constitute a robust assessment that meets the planning requirements and the work undertaken is consistent with the relevant local council's policies and guidelines regarding climate change.

15.35 With regards to the construction phase ICCI assessment, the Applicant concluded that “no significant impacts were identified during the construction period.” The ICCI assessment presented in Chapter 15 of the ES (Climate Change) represents a robust assessment and no further amendments to this are suggested.

Negative

15.36 There are no identified negative impacts during the construction phase.

Operational phase - impacts

Positive

15.37 There are no identified positive impacts during the construction phase.

Neutral

15.38 There are no neutral positive impacts during the construction phase.

Negative

15.39 In regard to Climate Change, the assessment presented in Chapter 15 of the ES (Climate Change) looks at:

- Climate Change Resilience (CCR): at the resilience of the operation of the Project to projected future climate change impacts,
- In-Combination Climate Change Impacts (ICCI): the combined effects of the Project and potential climate change impacts on the receiving environment and community during operation.

15.40 The Applicant identified climate change risks relating to:

- Change in seasonal patterns (rainfall and temperatures) affecting soil moisture, flora growing season, green infrastructure.
- Extreme weather/climatic events (winds, heatwaves, low temperatures, droughts, intense rainfall events, lightning) exacerbating environmental impacts to air, land, biodiversity, water, and human health receptors
- Urban Heat Island Effect
- Change in seasonal patterns (rainfall and temperatures) affecting health and safety
- High temperatures, heatwave, high intensity rainfall events, snowfall, lightning and/or flooding affecting aircraft operations, airport infrastructure (eg, drainage), utilities/service resilience and upgraded highway junctions.

- 15.41 The Applicant's assessments concludes that "No high or very high risks (considered significant) during operation were identified in the CCR assessment."
- 15.42 An initial review of this assessment deemed that the impact statements are lacking in consistency in the way they are articulated in that some are missing an 'impact'. It was requested that the Applicant should update all climate impacts statements to have a clear end impact and where appropriate to revise risk ratings accordingly.
- 15.43 In response to this, the Applicant stated that "The anticipated impacts of climate change are provided for all risks identified within the CCRA...Risk ratings would not change following a clarification of specific impacts and therefore no material impact on the assessment will arise."
- 15.44 Whilst there are different approaches to undertaking climate change risk assessments, and further detail and clarity around impact statements would be helpful, the Applicant's assessment of operational impacts does constitute a robust assessment that meets the planning requirements and the work undertaken is consistent with the relevant local council's policies regarding climate change.
- 15.45 With regards to the operation phase ICCI assessment, the Applicant concluded that "there were no significant ICCIs identified during the operation of the Project on the basis that no new significant effects were identified." The ICCI assessment presented in Chapter 15 of the ES (Climate Change) represents a robust assessment and no further amendments to this are suggested.
- 15.46 With regard to the Urban Heat Island (UHI) effect assessment, the Applicant concluded that "climate change would contribute to a slight increase in the UHI effect at Gatwick" and that "the Project may exacerbate the anticipated slight increase in the UHI from climate change at Gatwick itself, local to the airport and not the wider area."
- 15.47 For both the CCR Assessment and the ICCI Assessment, the Applicant rated the impacts related to UHI as medium or not significant due to embedded design measures and operational procedures, though noted that further monitoring is required for these medium risks to check if in the future they would become high risk and therefore significant.
- 15.48 The initial review of this UHI assessment noted that additional adaptation measures could be implemented to further reduce the UHI effect, however it is acknowledged that this would be going beyond planning requirements and that the assessment is thorough and consistent with policy as is.

Required Mitigation

- 15.49 The Applicant concludes that because no high or very high risks (considered significant) during construction or operation were identified, 'no further mitigation is required'. The Applicant concluded the same for the ICCI assessment and for the Urban Heat Island assessment.
- 15.50 It was initially argued that whilst the Applicant may not have assessed any of the risks as 'significant', the identification of further mitigation or adaptation measures is an omission in the report. It was suggested that additional adaptation measures e.g. design decisions or operational management measures that further reduce the Project's vulnerability to climate change should be noted and communicated with an indication of who is responsible and timing.
- 15.51 In response to this, the Applicant stated that "Further adaptation measures are not formally identified (under the heading of 'further mitigation') as no significant risks were identified within the assessment which would require mitigation that is not already embedded within the Project." The Applicant subsequently notes numerous documents that detail further mitigation measures (besides those already included in the chapter), such as The Code of Construction Practice (Appendix 5.3.2) (APP-082) The Gatwick Airside Operations Adverse Weather Plan (GAL, 2021) and the Outline Climate Resilience Design Principles captured within the Design and Access statement (APP-257).
- 15.52 It can therefore be concluded, that whilst further detail on additional mitigation measures could be included in Chapter 15 of the ES (Climate Change), this would be going beyond the planning requirements, and that the current assessment does meet requirements and is consistent with the relevant local council's policies regarding climate change.
- 15.53 However, as stated in Chapter 15 of the ES (Climate Change), "All risks, especially the medium risks (not significant) (see ES Appendix 15.8.1 CCR Assessment for more detail) [should be regularly reviewed] to ensure they do not move to the high or very high rating... During operation this can be formalised and aligned with the GAL's Task Force for Climate-Related Disclosures (TCFD) mandatory reporting (latest example in GAL, 2023) and GAL's 5-year review cycle for the Climate Adaptation Risk Assessment (GAL, 2021), reporting to the Government under the ARP as part of the 2008 Climate Change Act.

Requirements and obligations

- 15.54 A review of the Climate Change Assessment for the Gatwick Airport Northern Runway Project concludes that all relevant climate change requirements and obligations have been met and that the assessment is consistent with planning requirements and relevant local council policies on climate change.

16. Greenhouse Gases

Summary

- 16.1 National policy clearly states that the purpose of the planning system is to contribute to the achievement of sustainable development. This section focuses on the carbon impacts of the Project on the climate in relation to sustainable development.
- 16.2 The main adverse and secondary carbon impacts relate to carbon emissions associated with aviation and surface access activities during the operation of the Northern Runway Project.
- 16.3 The Applicant is recommended to commit to further mitigation to reduce the adverse impacts of the carbon emissions associated with the Project as summarised below.
- The Crawley Borough Local Plan Policy ENV6 (mCBLP Policy SDC1) require new non-domestic buildings to achieve BREEAM Excellent certification for water and energy credits where feasible. The Applicant plans to conduct a cost-benefit study on BREEAM certification, but it must achieve BREEAM excellent certification for water and energy credits into the Project if feasible.
 - The Applicant should prioritise the early adoption of PAS 2080:2023 in the design process to fully leverage the advantages of carbon reduction in accordance with the guidance provided by PAS 2080:2023
 - In line with the IEMA GHG Assessment methodology, the Applicant is required to update the carbon assessment and assess all material emissions over the whole life of the proposed Project. If an exclusion is undertaken, this must be evidenced and be <1% of total emissions, and where all such exclusions total a maximum of 5%.
 - The carbon assessment is required to consider international shipping impacts associated with the transportation of materials to ensure that the assessment has comprehensively considered emissions within the UK Government's boundary.
 - Infrastructure for electric vehicles and support for a Green Bus Programme are recommended to ensure the Applicant supports the transition to net zero.
 - The Applicant should also consider local funding of the Local Nature Recovery Strategy to offset emissions associated with the Airport and enhance biodiversity.
 - The Applicant must explore emissions control measures to ensure sustainable growth and effective environmental management. To monitor and control GHG emissions from airport operations and surface access journeys the Applicant is encouraged to consider implementing a control mechanism such as the Green Controlled Growth Approach being proposed

by London Luton Airport. Monitoring and reporting requirements for GHG emissions in airport operations and surface access transportation should be defined though such a mechanism and emission limits and thresholds must be established for pertinent project stages. Should any exceedances of these defined limits occur, the Applicant must undertake emission offsetting in accordance with the Airport Carbon Accreditation Offset Guidance Document.

- In addition, and where reasonably practical, the airport should seek to utilise local offsetting schemes that can deliver environmental benefits to the area and local community around the airport. Offsets should align with the following key offsetting principles i.e. that they should be
 - Additional in that would not have occurred in the absence of the project.
 - Monitored and reported.
 - permanent and irreversible.
 - without leakage in that they don't increase emissions outside of the proposed development.
 - Have a robust accounting system to avoid double counting and
 - Be without negative environmental or social externalities.

Policy Context

National Policy Statements

The Airports National Policy Statement

- 16.4 The Airports National Policy Statement (ANPS) sets out the Government's policy on the need for new airport capacity in Southeast England. While the ANPS is only directly applicable to Heathrow Airport, it has a bearing on other airports, particularly those in the southeast, making the best use of their existing runways and assessing effects.
- 16.5 Paragraph 5.74 in the ANPS recognises that the carbon impact of airport development falls into four areas namely: "air transport movements (both international and domestic) as a result of increased demand, emissions from airport buildings and ground operations, emissions from surface transport accessing the expanded airport; and emissions caused by construction."
- 16.6 In paragraph 5.76, the ANPS sets out the considerations for assessing GHG emissions, including the quantification of impacts. Paragraph 5.76 requires the Applicant to:
- a) "Provide evidence of the carbon impact of the project (including embodied carbon), both from construction and operations such that it can be assessed against the

- Government's carbon obligations, including but not limited to carbon budgets.
 - b) Quantify GHG impacts before and after mitigation to show the impacts of the proposed mitigation.
 - c) Split emissions into traded and nontraded sector."
- 16.7 Furthermore, the ANPS in paragraph 5.77 states that the Applicant's assessment should seek to quantify impacts including:
- a) "Emissions from surface access due to airport and construction staff;
 - b) Emissions from surface access due to freight and retail operations and
 - c) construction site traffic;
 - d) Emissions from surface access due to airport passengers/visitors; and
 - e) Emissions from airport operations including energy and fuel use.
 - f) This should be undertaken in both a 'Do-Minimum' and 'Do-Something' scenario for the opening, peak operation and worst-case scenarios."
- 16.8 The Examining Authority (hereinafter referred to as ExA) should be satisfied under the ANPS that mitigation measures are acceptable and provides a list of suggested measures for inclusion. This is suggested under paragraph 5.78 in the ANPS that this is achieved via "a management /project plan may help clarify and secure mitigation at this stage".
- 16.9 Paragraph 5.82 in the ANPS sets out a key test that the ExA must be satisfied the Applicant has addressed as part of their decision making process: "Any increase in carbon emissions alone is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the project is so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets, including carbon budgets."
- 16.10 The ExA's (paragraph 5.83 in the ANPS): "view of the adequacy of the mitigation measures relating to design, construction and operational phases will be a material factor in the decision-making process."

The National Policy Statement for National Networks

- 16.11 The National Policy Statement for National Networks (NPSNN) sets out the need for development of road, rail and strategic rail freight interchange projects on the national networks and the policy against which decisions on major road and rail projects will be made.
- 16.12 Paragraph 5.16 in the NPSNN notes, "Carbon budgets and plans will include policies to reduce transport emissions, taking into account the impact of the Government's overall programme of new infrastructure as part of that."

- 16.13 Moreover, paragraph 5.17 in the NPSNN explains that any carbon impacts should be included at the options appraisal stage and as part of the EIA for the DCO application, and that applicants should provide evidence of the carbon impacts and assess them against the carbon budgets.
- 16.14 The ExA should be satisfied that the carbon assessment from the Applicant has been assessed in the context of paragraph 5.18 in the NPSNN, which details: “any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets.”
- 16.15 Furthermore, the ExA should be satisfied under paragraph 5.19 of the NPSNN that: “Evidence of appropriate mitigation measures (incorporating engineering plans on configuration and layout, and use of materials) in both design and construction should be presented. The Secretary of State will consider the effectiveness of such mitigation measures in order to ensure that, in relation to design and construction, the carbon footprint is not unnecessarily high. The Secretary of State’s view of the adequacy of the mitigation measures relating to design and construction will be a material factor in the decision-making process”.
- 16.16 The Draft NPSNN was released for consultation in March 2023, which closed in June 2023 and is likely to be published in early 2024. The draft NPSNN provides a more transparent framework for assessing the carbon impact of Nationally Significant Infrastructure Project Schemes within the context of the Government’s binding carbon targets and net zero.
- 16.17 The Draft NPSNN sets out the principles based on which individual projects should be assessed, including the environmental impacts of a proposed scheme. The Draft NPSNN sets requirements with regard to promoters’ need to prepare a whole-life carbon assessment of their project to measure emissions at every stage of development. In addition, Carbon Management Plans will be required, which will need to explain whether and how residual emissions will be offset or removed and the impact of any residual emissions on national and international efforts to limit climate change, alone and in combination. However, these details will be confirmed once the NPSNN is published.

National Planning Policy Framework

- 16.18 The National Planning Policy Framework (NPPF) was recently updated in December 2023 and sets out the planning policies for England.
- 16.19 The ExA should be satisfied under paragraph 162 in the NPPF that the Applicant complies “with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the Applicant, having regard to the type of development involved and its design, that this is not feasible or viable”.

This is specific requirement of the adopted Crawley Borough Local Plan and the Local Plan Modifications Consultation Draft, as set out below.

- 16.20 Additionally, the ExA should be satisfied that the Applicant's plans should help to increase the use and supply of renewable and low-carbon energy and heat by providing a positive strategy for deriving energy from these sources; identifying suitable areas for renewable and low-carbon energy sources; and identifying opportunities for the development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

Jet Zero Strategy

- 16.21 The UK Government has committed to achieving the High Ambition Scenario presented in the Jet Zero Strategy which is based on an increased uptake of sustainable aviation fuels (SAFs), increased aircraft efficiency, airspace management, demand management through carbon pricing and zero emissions aircraft.
- 16.22 The Jet Zero Strategy also includes specific targets, including for all domestic flights to be net zero emissions by 2040, and for airport operations in England to be zero emissions by the same date.
- 16.23 It is acknowledged that the Jet Zero Strategy enforces the position that national/international policy such as the UK Emission Trading Scheme / Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) will be used to manage emissions from aviation to align with the broader UK Governments net zero target.

Local Plan Policy – West Sussex

Crawley Borough Council (CBC)

- 16.24 The Applicant's location lies within the administrative boundary of the Crawley Borough Council (CBC). CBC has an adopted Local Plan (2015-2030), which sets out two key policies (ENV6 and GAT1) in relation to carbon as detailed below.
- 16.25 ENV6: Sustainable design and construction details that Proposals for new non-domestic buildings should achieve BREEAM Excellent (for water and energy credits) where technically and financially viable. In relation to carbon the following requirements need to be achieved for all developments:
- Take an active approach to reducing its need to consume energy;
 - Utilise renewable and low-carbon energy technologies where appropriate;
 - Look at ways to improve the existing building when adding improvements or extensions;
 - Minimise the amount of carbon emitted throughout the implementation and construction process and ensure any existing embedded carbon onsite is retained; and

- Consider the establishment of district energy networks within heat priority areas or near potential sources of waste energy and consider connection or futureproofing developments for connection.
- 16.26 GAT1: Development of the Airport with a Single Runway stipulates that the Council will support the development of facilities which contribute to the safe and efficient operation of the airport as a single runway, two terminal airport up to 45 million passengers per annum provided that:
- The proposed use is appropriate within the airport boundary and contributes to the safe and efficient operation of the airport; and
 - Satisfactory safeguards are in place to mitigate the impact of the operation of the airport on the environment including noise, air quality, flooding, surface access, visual impact and climate change; and
 - The proposed use would not be incompatible with the potential expansion of the airport to accommodate the construction of an additional wide spaced runway.
- 16.27 Policy ENV7 District Energy Networks encourages the development of district energy networks and associated infrastructure, new developments are required to illustrate their consideration of existing District Energy Networks and their potential contribution to such networks. Additionally, they are encouraged to utilise communal energy systems where feasible in support of the NPPF decentralised energy supply requirements.
- 16.28 In addition, to these main policies the following policies are also relevant in the context of carbon including:
- Policy IN3: Development and Requirements for Sustainable Transport focuses on the support of sustainable travel through the use of the existing transport network, including public transport routes and the cycling and walking network; and
 - Policy ENV2: Biodiversity. All development proposals will be expected to incorporate features to encourage biodiversity where appropriate, and where possible, enhance existing features of nature conservation value within and around the development.

Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024

- 16.29 Key policies of relevance concerning carbon are summarised below.
- 16.30 Strategic Policy SDC1: Sustainable Design and Construction sets requirements to submit a Sustainability Statement which should be designed and implemented as far as possible to minimise the amount of carbon emitted throughout the development process and to limit the loss of any existing embedded carbon onsite, including through consideration of the feasibility of retrofitting and reusing existing buildings. The incorporation of this approach within the development process should be

detailed in the Sustainability Statement. SDC1 also sets out that developments for which may be subject to Part L2A of the 2013 Edition of the 2010 Building Regulations for the purposes of Building Regulations compliance should achieve the relevant Target Emission Rate (TER) through fabric and energy efficiency measures alone.

- 16.31 Policy SDC2: The development of district energy networks and associated infrastructure is encouraged and should be approved unless it results in significant adverse impacts. Any major development within the borough meeting the thresholds for submitting a Sustainability Statement detailed in Policy SDC1, and all development proposals within a priority area for District Energy Networks that would involve the creation of a new dwelling or the creation of over 1000sqm of internal floorspace, must incorporate an energy strategy developed in accordance with the SDC2 hierarchy.
- 16.32 GAT1 Strategic Policy GAT1: Development of the Airport with a Single Runway which sets out that the Council will support the development of facilities which contribute to the sustainable growth of Gatwick Airport as a single runway provided that...The adverse impacts of the operation of the airport on the environment and the health and living conditions of the local community, including noise, air quality, flooding, surface access, visual impact, and climate change, are minimised, where necessary satisfactory safeguards are in place to ensure impacts are appropriately mitigated and, as a last resort, fair compensation is secured.

Horsham District Council (HDC)

- 16.33 The Horsham District Planning Framework is the main planning document for the District. A number of policies relate to the topic of climate change. Strategic Policy 35: Climate Change outlines how development must contribute to meeting the District's carbon reduction targets.
- 16.34 In January 2024 Horsham District Council agreed the Climate Action Strategy: Towards Net Zero and Climate Resilience, which details how the District will achieve its pledge to be Net Zero for some of its emissions by 2030 and in full by 2050.

Other Relevant Local Policy

- 16.35 *Crawley Borough Council: Planning and Climate Change SPD* (Adopted October 2016) providing guidance on how development should be designed to comply with policies ENV6, ENV7, ENV8, ENV9, IN3, CH3 and ENV3 (Link: [Planning and climate change SPD | Crawley GOV](#))

Table 16.1: Summary of Impacts – Greenhouse Gases					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
16.1a	Unaccounted carbon emissions in the whole life carbon assessment have the potential to result in the underreporting of the Proposed Development's impact on the climate. The full impact of the Proposed Development on the government meeting its net zero targets cannot be identified.	C and O	Negative	Under the IEMA GHG Assessment methodology used in the ES [APP-041], the Applicant is required to update the carbon assessment and assess all material emissions over the whole life of the proposed Scheme. If an exclusion is undertaken, this must be evidenced and be <1% of total emissions, and where all such exclusions total a maximum of 5%.	CBC 2030 Local Plan (2015-2030): Policy ENV6 and GAT1.
16.1b	The unsustainable growth of airport operations may result in	C and O	Negative	To monitor and control GHG emissions during the project construction and operation it is	CBC 2030 Local Plan (2015-2030):

Table 16.1: Summary of Impacts - Greenhouse Gases					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	significant adverse impacts to the climate.			suggested a control mechanism to similar to the Green Controlled Growth Framework submitted as part of the London Luton Airport Expansion Application, is provided. Implementing such a framework would make sure that the Applicant demonstrates sustainable growth while effectively managing its environmental impact. Within this document, the Applicant should define monitoring and reporting requirements for GHG emissions for the Applicant's construction activities, airport operations and surface access transportation. Similar to the London Luton Airport Green Controlled Growth Framework, emission limits and thresholds for pertinent project stages should be established. Should any exceedances of these defined limits occur, the Applicant must cease project activities. Where appropriate the Applicant should undertake emission offsetting in accordance with the Airport Carbon Accreditation Offset Guidance Document to comply with this mechanism.	Policy ENV6 and GAT1.

Table 16.1: Summary of Impacts - Greenhouse Gases					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>In addition, and where reasonably practical, the airport will seek to utilise local offsetting schemes that can deliver environmental benefits to the area and local community around the airport. Offsets should align with the following key offsetting principles i.e. that they should be :</p> <ul style="list-style-type: none"> ○ additional in that would not have occurred in the absence of the project ○ monitored, reported and verified ○ permanent and irreversible ○ without leakage in that they don't increase emissions outside of the proposed development ○ Have a robust accounting system to avoid double counting and ○ Be without negative environmental or social externalities. 	
16.1c	Unaccounted WTT emissions have the potential to result in the underreporting of the Proposed Development's impact	O	Negative	Excluding WTT is non-compliant with the globally recognised GHG Protocol Corporate Accounting Standard, the UK Government's carbon accounting methodology and the IEMA GHG	CBC 2030 Local Plan (2015-2030): Policy GAT 1 encourages the efficient operation

Table 16.1: Summary of Impacts – Greenhouse Gases					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	on the climate. The full impact of the Proposed Development on the government meeting its net zero targets cannot be identified			Assessment methodology used in the ES [APP-041]. Under the IEMA GHG Assessment methodology used in the ES, the Applicant must update the assessment to evidence that exclusions are <1% of total emissions and where all such exclusions total a maximum of 5%.	of the Airport Runway.
16.1d	Unaccounted WTT emissions have the potential to result in the underreporting of the Proposed Development's impact on the climate. The full impact of the Proposed Development on the government meeting its net zero targets cannot be identified.	C	Negative	Excluding WTT is non-compliant with the globally recognised GHG Protocol Corporate Accounting Standard, the UK Government's carbon accounting methodology and the IEMA GHG Assessment methodology used in the ES [Chapter 16 of the ES, APP-041]. Under the IEMA GHG Assessment methodology used in the ES, the Applicant must update the assessment to evidence that exclusions are <1% of total emissions and where all such exclusions total a maximum of 5%.	CBC 2030 Local Plan (2015-2030): Policy ENV6.
16.1e	Shipping emissions during the transportation of construction materials have the potential to result in the	C	Negative	The Applicant needs to update the transport assessment in compliance with the RICS methodology quoted in the ES to ensure shipping transport emissions are accounted for. This can then be used to inform	CBC 2030 Local Plan (2015-2030): Policy ENV6

Table 16.1: Summary of Impacts – Greenhouse Gases					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	underreporting of the Proposed Development’s impact on the climate. The full impact of the Proposed Development on the government meeting its net zero targets cannot be identified.			appropriate transport efficiency mitigation measures as part of the CAP under Appendix 5.4.2 in the ES [APP-091].	
16.1f	If construction emissions are not managed in line with PAS 2080:2023 they have the potential to result in the underreporting of the Proposed Development’s impact on the climate. The full impact of the Proposed Development on the government meeting its net zero targets cannot be identified.	C	Negative	One of PAS2080:2023’s foundational principles is that the earlier you implement it during the design process, the more likely it is that carbon can be reduced in the design. Hence, in alignment with this principle, the Applicant should implement PAS 2080:2023 as early as possible within the design process to maximise carbon-saving opportunities.	CBC 2030 Local Plan (2015-2030): Policy ENV6.
16.1g	If the Applicant does not provide infrastructure or services to help decarbonise surface transport emissions it may have the potential to result in the	O	Negative	The Applicant should provide infrastructure within the Airport to support the anticipated uptake of electric vehicles and provide electric vehicle charging infrastructure. Additionally, to support this movement, the Applicant should support a Green Bus Programme in	CBC 2030 Local Plan (2015-2030): Policy IN3: Development and Requirements for Sustainable Transport

Table 16.1: Summary of Impacts - Greenhouse Gases					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	underreporting of the Proposed Development's impact on the climate. The full impact of the Proposed Development on the government meeting its net zero targets cannot be identified.			Mid Sussex, including supporting an expansion of the network of hydrogen buses used in the Gatwick/Crawley area into Mid Sussex with accompanying infrastructure.	
16.1h	If the Applicant fails, the BREEAM Excellent (for water and energy credits) targets it may have adverse consequences on the environment.	C	Negative	If concluded technically and financially viable in the cost-benefit study, the Councils expect that the Applicant will implement BREEAM Excellent certification (for water and energy credits) into the Project. This standard should be specified by requirement or set out clearly within a control document.	CBC Local Plan policy ENV6 and the draft CBLP.

Construction Phase – impacts

Positive

16.36 There are no identified positive impacts during the construction phase.

Neutral

16.37 There are no identified neutral impacts during the construction phase.

Negative

16.38 The construction period will cause greenhouse gases to be emitted. It is estimated that over the course of the 2024–2038 construction period, approximately 1.155 million tons of aggregated CO₂e will be emitted.

16.39 Neither the ES nor the Appendices show the breakdown in the construction emissions, so it cannot be identified where the greatest impact of greenhouse gas emissions is during the 2024–2038 construction period.

16.40 The construction of any large-scale infrastructure project would be resource-intensive and have the potential to generate waste. In addition, building the Northern Runway Project would involve the daily movement of large numbers of construction workers, materials and equipment.

16.41 To mitigate against this, the Applicant has developed a Carbon Action Plan (CAP) presented under Appendix 5.4.2 [APP-091] in the ES.

16.42 The CAP provides a construction carbon management process and target stipulating that construction emissions do not exceed 1.15 MtCO₂e. It's noted that in the ES the Applicant presents a different target of 1.155 MtCO₂e, leading to a potential rounding error of 0.005 MtCO₂e.

16.43 In order to achieve this carbon target, the CAP sets out short-term and medium-term mitigation measures to prevent, reduce and remediate GHG emissions arising from the construction of the Northern Runway Project [Appendix 5.4.2 of the ES, APP-091]. Furthermore, the CAP states that the Principal Contractor will be PAS 2080:2023 certified requiring them to embed best-practice carbon management into the construction process.

16.44 The Applicant currently proposes to do a cost-benefit study, including an analysis of BREEAM's feasibility. In line with ENV6, the Councils expect that the Applicant implements BREEAM Excellent certification (for water and energy credits) into the Project if economically viable.

16.45 The Applicant has proposed using a PAS 2080:2023 certified Principal Contractor, limited to the construction phase of the Project. It should be noted, however, that one of the central tenets of PAS2080:2023 is that the earlier PAS2080 is incorporated into the design phase, the greater the possibility of reducing carbon emissions. Therefore, to maximise

carbon-saving prospects, the Applicant should include PAS 2080:2023 as early as practicable during the design process in accordance with this principle.

- 16.46 It was identified that there are inconsistencies in the Applicant's assessment methodology, as the assessment presented in the ES did not account for well-to-tank (WTT) emissions during construction. Excluding WTT is non-compliant with the globally recognised GHG Protocol Corporate Accounting Standard, the UK Government's carbon accounting methodology and the IEMA GHG Assessment methodology, referenced in the GHG ES Methodology [Chapter 16 of the ES, APP-041] in Section 16.4.18.
- 16.47 In response to the PADSS tables, the Applicant stated "The assessment was not seeking to provide a Whole Life Carbon assessment of the Project". This admission is, therefore not in line with the Applicant's IEMA GHG assessment methodology defined in the ES, which specifies "The assessment must include all material emissions (defined by magnitude, see Section 5.3, Step 3 for the exclusion threshold), direct or indirect (based on the point above), during the whole life of the proposed project. The boundary of the assessment should be clearly defined, in alignment with best practice".
- 16.49 The IEMA GHG Assessment methodology used in the ES stipulates that evidence needs to be provided if exclusions are <1% of total emissions and where all such exclusions total a maximum of 5%.
- 16.50 Furthermore, during the construction carbon assessment, [Chapter 16 of the ES, APP-041] the Applicant did not fully utilise the RICS construction transport distances to estimate transport-related emissions associated with the movement of construction materials. This resulted in the Applicant not accounting for emissions associated with the global shipping of materials and equipment being delivered to the Project.
- 16.51 Moreover, the Applicant did not provide calculations or an estimate on electrical energy use during construction, and no evidence was provided for why it was scoped out. Based on these carbon accounting discrepancies around WTT, RICS transport distances and electrical energy use during construction, the Applicant is likely underreporting the Northern Runway Project construction emissions [Chapter 16 of the ES, APP-041].

Operational phase - impacts

Positive

- 16.52 There are no identified positive impacts during the operational phase.

Neutral

- 16.53 There are no identified neutral impacts during the operational phase.

Negative

- 16.54 The primary adverse impacts will be as a result of greenhouse gases emitted during the operation lifecycle stage of the Project.
- 16.55 The operation of any large-scale airport will result in substantial emissions, primarily from aviation and surface access journeys. The operation of the Northern Runway Project would involve the additional daily movement of large numbers of aircraft and surface access journeys to and from the airport, which are potentially carbon-intensive activities. Additionally, there are emissions associated with the operational energy/resource consumption and waste associated with operating the Northern Runway Project.
- 16.56 The Applicant states [Chapter 16 of the ES, APP-041] that the primary control to reduce GHG emissions from aircraft will be through government policy at a national and international level rather than directly through the actions of individual airport operators. The Jet Zero Strategy sets out that the Government will achieve net zero aviation by 2050. The Government has committed to implementing the 'high ambition scenario' within the Jet Zero Strategy. The high-ambition scenario includes the implementation of carbon reduction measures, including sustainable aviation fuels (SAF), aircraft fuel efficiency improvements, and zero-emissions aircraft. Where these measures are not implemented at the rate forecast in the high-ambition scenario, mechanisms including the UK ETS and CORSIA will be used to manage aviation emissions.
- 16.57 Additionally, the Applicant aims to actively support the transition to new aircraft technologies and fuels as set out under the CAP in Appendix 5.4.2 of the ES [APP-091].
- 16.58 In support of decarbonising its operations under the CAP [APP-091], the Applicant sets out to achieve net zero operational emissions for Scope 1 and 2 by 2030. For scope 3 airport operational emissions, the Applicant proposes implementing short- and medium-term mitigation measures to help decarbonise emissions outside its direct operational control. The CAP reports that the Applicant, from 2040 onwards, will not use carbon offsets to achieve net zero (GAL Scope 1 and 2) and will commit to removing any residual emission from sources over which the Applicant controls, which is in alignment with Jet Zero. However, beyond the direct airports operational controls the Applicant does not make any direct commitments to try and decarbonise surface access transportation emissions.
- 16.59 The operational lifecycle stage of the Project will potentially cause substantial amounts of greenhouse gases to be emitted. The ES does not provide the estimated total operational emissions over the course of the operational service life of the Project. However, it does state that in the "worst-case assessment year," 1.288 MtCO_{2e} will be emitted from operational emissions. In addition, it is reported that the emissions from the Applicant will account for 5.825 MtCO_{2e} during the 6th carbon

budget, which represents 3.136% of this budget [Chapter 16 of the ES, APP-041].

- 16.60 Chapter 16 of the ES [APP-041] identified that aviation emissions were the primary emission source, which represented around 88% of the Project's operational emissions. Additionally, surface access accounted for the secondary highest emissions source, contributing approximately 11.6% of the Project's operational emissions. Hence, the operational emissions that the Applicant has direct control over-represent the minority of emissions (<1%).
- 16.61 Inconsistencies were identified in the Applicant's assessment methodology as a whole-life carbon assessment was not presented in the ES [Chapter 16, APP-041]. The Applicant excluded emissions sources during the operational lifecycle stage of the Project, with emission sources such as maintenance, repair, and replacement excluded with no justification. Consequently, this is non-compliant with the IEMA GHG Assessment methodology quoted in the ES [Chapter 16 of the ES, APP-041] in Section 16.4.18.
- 16.62 In response to the PADSS tables, the Applicant stated "The assessment was not seeking to provide a Whole Life Carbon assessment of the Project". This admission is, therefore, not in line with the Applicant's IEMA GHG assessment methodology defined in the ES, which specifies "The assessment must include all material emissions (defined by magnitude, see Section 5.3, Step 3 for the exclusion threshold), direct or indirect (based on the point above), during the whole life of the proposed project. The boundary of the assessment should be clearly defined, in alignment with best practice".
- 16.63 Hence, it is determined that the Applicant has failed to conduct a whole-life carbon assessment of the Project with significant emission sources such as WTT discounted with no reasonable justification, which is non-compliant with the methodologies referenced in the GHG ES Methodology [Chapter 16 of the ES, APP-041] in Section 16.4.18 comprising:
- i. IEMA GHG Assessment Guidance;
 - ii. GHG Protocol Corporate Accounting Standard; and
 - iii. The UK Government's carbon accounting methodology (DESNZ).
- 16.64 Additionally, under Appendix 5.4.1 in the ES [APP-090], the Applicant does not set any commitments to support providing infrastructure or services to help decarbonise surface transport emissions.
- 16.65 The Applicant details in the Carbon Action Plan [APP-091] commits to using internationally recognised offsetting schemes (CAP Para 1.1.4). Within the CAP, the Applicant also commits to investment in carbon removal mechanisms in preference to commonly used offsetting mechanisms. However, no formal commitment has been made to support local vegetation planting to help offset emissions associated with the Project.

Required Mitigation

- 16.66 As set out by CBC under its local plan policy ENV6, the Council expects new non-domestic buildings to achieve BREEAM Excellent (for water and energy credits) where they are technically and financially viable. Currently, the Applicant only proposes to do a cost-benefit study, including an analysis BREEAM.
- 16.67 The Authorities requires the Applicant to incorporate BREEAM Excellent certification (for water and energy credits) into the Project if this evaluation proves to be technically and financially feasible.
- 16.68 Furthermore, it is mentioned that the Applicant intends to use a Principal Contractor who is certified by PAS 2080:2023 [Appendix 5.4.2 of the ES, APP-091]. On the other hand, early use of PAS2080:2023 throughout the design process increases the likelihood of reducing carbon in the design. This is one of the fundamental principles of the standard. Therefore, to maximise carbon-saving prospects, the Applicant should incorporate PAS 2080:2023 as early as practicable during the design process in accordance with this principle. Excluding WTT is non-compliant with the globally recognised GHG Protocol Corporate Accounting Standard and the UK Government's carbon accounting methodology, referenced in the GHG ES Methodology. Therefore, WTT should be included within the calculations to inform the carbon impact of the Project during construction and operation.
- 16.69 The Applicant should be required to consider the implementation of a carbon emissions control mechanism such as the Green Controlled Growth Framework offered by London Luton Airport. This framework provides a mechanism to track, report and limit carbon emissions from construction, airport operations and surface access journeys to 2050. Where carbon emissions exceed predetermined limits future expansion of the airport in line with the DCO application must cease until action has been taken. Performance against the proposed targets in the Green Controlled growth mechanism is regularly reviewed and monitored by an independent group consisting of a number of parties including local authorities.
- 16.70 The Applicant [Chapter 16 of the ES, APP-041] should update the transport assessment per the RICS methodology indicated in the ES to allow for the impact of construction materials being transported via international shipping. The relevant transport efficiency mitigation measures can then be updated in the CAP under Appendix 5.4.2 in the ES [APP-091] to reduce the impact of transportation emissions.
- 16.71 Under the IEMA GHG Assessment methodology used in the ES [Chapter 16 of the ES, APP-041], the Applicant is required to update the carbon assessment and assess all material emissions over the whole life of the proposed Project. If an exclusion is undertaken, this must be evidenced and be <1% of total emissions, and where all such exclusions total a maximum of 5%.

- 16.72 Moreover, the Applicant should provide infrastructure within the Northern Runway Project to support the anticipated uptake of electric vehicles and provide electric vehicle charging infrastructure. Additionally, to support this movement, the Applicant should support a Green Bus Programme in Mid Sussex, including supporting an expansion of the network of hydrogen buses used in the Gatwick/Crawley area into Mid Sussex with accompanying infrastructure.
- 16.73 Carbon offsetting through non-verified schemes can lead to the intended amount of carbon offset not being realised, potentially affecting the Applicant's net zero status and resulting in adverse consequences for the climate. The Applicant must undertake emission offsetting in accordance with the Airport Carbon Accreditation Offset Guidance Document which specifies the type of offsetting Schemes that can be used to reduce this risk when offsetting emissions through a Green Controlled Growth type framework.

Requirements and Obligations

- 16.74 If concluded technically and financially viable from this assessment, the Councils expect that the Applicant will implement BREEAM Excellent certification (for water and energy credits) into the Project. The requirements of policy ENV6 should be specified as requirement or clearly referenced in an agreed control document (CAP or DAS).
- 16.75 Under the IEMA GHG Assessment methodology used in the ES [Chapter 16 of the ES, APP-041], the Applicant is required to update the carbon assessment and assess all material emissions (such as WTT) over the whole life of the proposed Project. If an exclusion is undertaken, this must be evidenced and be <1% of total emissions, and where all such exclusions total a maximum of 5%.
- 16.76 In order to track the Applicant's progress on its net zero commitments, the Applicant must submit to the Council's ongoing reporting of issues directly relating to the Northern Runway Project and potential impacts on climate change.

17. Traffic and Transport

Summary

- 17.1 The Project is considered to have a negative impact on the local highway network given the likely increase in vehicle movements associated with the proposals and all the associated impacts attributed to this increase in traffic. This impact is despite the highway mitigation currently proposed by the Applicant.
- 17.2 A substantial amount of additional road traffic will be generated as a result of the construction activity associated with the Project. The Project Description (APP-030) states that construction will take place between 2024-2038, with the northern runway and taxiways complete and fully operational by 2029. The associated highway works are not proposed to be constructed until 2032 and therefore there is a significant period of time where there will be an overlap of increased construction traffic with increased passenger movements associated with the operation of the Northern Runway. Construction traffic will be formed of HGVs freight traffic, but also from LGVs and increased car and bus traffic, associated with the construction workforce. During the busiest airfield construction month (December 2026), the Applicant forecasts 38,450 construction vehicles for the busiest shift across the month. This potential increase in road traffic will have associated impacts on pedestrian delay, pedestrian amenity, perception of personal road safety, driver delay and potential road safety implications.
- 17.3 Once operational, the Project will result in a significant increase in additional trips to and from the airport, when compared against existing levels and future levels without the Project in place. There are however concerns that the level of growth assumed by the Applicant is too high, these concerns are supported by the assessment made by York Aviation (see Chapter 6 and Appendix F). This could result in an over forecast of the demand and therefore an over provision of car parking (potentially presenting implications for GAL in achieving its sustainable mode share obligations for surface access) and highway elements of the infrastructure. Within the submission, the Applicant forecasts that the Project would enable the airport capacity to increase from 67.2 million passengers per annum (mppa), without the scheme, to 80.2mppa with the scheme, by 2047. This equates to an increase of 13 mppa and all the additional trips associated with the additional infrastructure and facilities to cater for this additional airport capacity. The Authorities have expressed concerns about the realism of the capacity achievable in both the Future Baseline and the with Project scenarios, and do not consider that it has been adequately demonstrated that the difference between them will not exceed 13 mppa as a reasonable 'worst case' for assessment purposes. In order to seek to mitigate the impact of this increase, the Applicant has proposed various highway works, primarily to the M23 and Airport Way, providing access to the North Terminal. The Highway Authority (WSCC) consider that there is still missing information to fully assess and support these works and that this outstanding information should be provided by the Applicant.

- 17.4 The Authorities will continue to work proactively with the Applicant and other stakeholders to identify and mitigate the transport impacts of the Project and seek to reach an agreed position in relation to this aspect.
- 17.5 It is the view of the Authorities that additional measures are required to ensure that the Applicant mitigates both the impact of construction and operational phases of the Project. This includes providing further specific mitigation measures during the construction phase and also providing additional sustainable and active travel mitigation to ensure that the number of journeys made to the airport by sustainable modes of transport is maximised, as much as possible. The Highway Authority would also look for an Outline Airport Surface Access Strategy (ASAS) to be produced detailing how the Surface Access Commitments (APP-090) could form into a robust strategy to promote and encourage active and sustainable forms of travel to and from the airport. Further work in relation to the forecast traffic modelling is required as set out in the Procedural Matters letter (PD-006) from the ExA on 24th October 2023. The Highway Authority are currently assessing this further work, recently submitted by the Applicant, including the document entitled, Accounting for Covid-19 in Transport Modelling (AS-121 and AS-122). The Highway Authority hope to formally respond to this latest information by Deadline 2, 26th March 2024. Once this further work is fully assessed a clearer idea of the likely traffic implications of the Project will be known.

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
17.1A	Impact on the local transport network and local community due to additional road traffic associated with construction activity. Potential impacts include increased pedestrian delay, impacts on pedestrian amenity, impacts on the perception of safety from other road users, driver delay, and road safety implications.	C	Negative	<p>Ultimately, subject to approval of the DCO, a full Construction Management Plan will be required, that sets out the timescales and intended means of constructing the Project and any necessary traffic management and measures to mitigate and reduce the impact of construction on the transport network. This is required to include firm commitments and specific details as to what is proposed.</p> <p>The Outline Construction Traffic Management Plan (APP-085) lacks detail and further clarification is required from the Applicant at examination stage. Matters for clarification include when the contingency routes will be used and further clarification as to the detail of certain measures proposed in the CTMP.</p> <p>Ultimately, subject to approval of the DCO, a full Construction Workforce Travel Plan will be required that expands upon the high-level measures currently put forward by the Applicant (in APP-084). A Travel Plan, specifically</p>	<p>Airports National Policy Statement, in paragraph 5.80, requires mitigation measures at construction stage and that they, "... draw on best practice from other major construction schemes...".</p> <p>NPPF, paragraph 110b (requires the provision of safe and suitable access) and d (that any highway safety impacts can be cost effectively mitigated to an acceptable degree)</p> <p>Local Plan Policy IN3 (Development and Requirements for Sustainable Travel) notes that, "Developments should meet the</p>

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>aimed at mitigating the transport impacts of construction workers travel throughout the construction period, is needed. The current outline document submitted by the Applicant is high level and clarification is required, at examination, in relation to the specific detail of certain mitigation measures. This is required to include firm commitments and specific details as to what is proposed.</p> <p>To be secured via requirement.</p>	<p>access needs they generate and not cause an unacceptable impact in terms of increased traffic congestion or highway safety.”</p>
17.1B	Re-routing of non-airport traffic during construction of the highway works to less desirable nearby routes on the local highway network	C	Negative	<p>Ultimately, subject to approval of the DCO, a full Construction Management Plan will be required that sets out the timescales and intended means of constructing the development and any necessary traffic management and measures to mitigate and reduce the impact of construction on the transport network. Clarification is required in relation to measures proposed within the Outline Construction Management Plan (APP-085). This is required to include firm</p>	<p>Airports National Policy Statement requires mitigation measures at construction stage and that they, “... draw on best practice from other major construction schemes...”.</p> <p>Local Plan Policy IN3 (Development and Requirements for</p>

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				<p>commitments and specific details as to what is proposed.</p> <p>Ultimately, subject to approval of the DCO, a full Construction Workforce Travel Plan that expands upon the high-level measures currently put forward by the Applicant will be required. A Travel Plan, specifically aimed at mitigating the transport impacts of construction workers travel throughout the construction period, is needed. The current document submitted by the Applicant is high level and clarification on the specific mitigation measures proposed is required. This is required to include firm commitments and specific details as to what is proposed.</p> <p>To be secured via requirement.</p> <p>Consideration of additional mitigation to limit the impact of the proposals during construction.</p> <p>To be secured via requirement.</p>	<p>Sustainable Travel) notes that, "Developments should meet the access needs they generate and not cause an unacceptable impact in terms of increased traffic congestion or highway safety."</p>

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
17.1C	Detrimental impact on the condition of the road surface of the local highway network, due to the increase in construction traffic including HGVs and abnormal loads.	C	Negative	<p>Applicant to commit to funding a Highway Structural Maintenance Contribution which contributes to the costs of maintaining, in a good state of repair, the local road network during the construction period, to mitigate the impact of construction traffic.</p> <p>To be secured in a control document or via obligation.</p>	<p>Airports National Policy Statement requires mitigation measures at construction stage and that they, "... draw on best practice from other major construction schemes...".</p> <p>Local Plan Policy IN3 (Development and Requirements for Sustainable Travel) notes that, "Developments should meet the access needs they generate and not cause an unacceptable impact in terms of increased traffic congestion or highway safety."</p>
17.1D	Impact on the line loading and seated load capacity of rail	O	Neutral	No specific comments.	Airport NPS requires sustainable travel to and from the airport

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	services on the Arun Valley Line.				is maximised as much as is possible. Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.
17.1E	Impact on the line loading and seated load capacity of rail services on the North Downs Line.	O	Neutral	No specific comments.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
17.1F	Increases to the line loading and seated load capacity of rail services on the Brighton Main Line	O	Negative	Train access is a key transport mode to ensure sustainable travel to and from the airport is maximised. However, trains are less utilised for staff and early morning flights, as train services in the early morning and late evenings are insufficient. The Applicant should consider, with the relevant organisations', improvements to the coverage of rail services, including earlier morning/late evening services and include any additional mitigation within a revised Service Access Commitments document (APP-090).	<p>Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible.</p> <p>NPPF paragraph 110 states, "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:</p> <p>a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location."</p> <p>Policy IN3: Development and Requirements for Sustainable</p>

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					Transport – requires that new development should meet the access needs they generate.
17.1G	Increased levels of crowding on local bus services due to a forecast increase in demand for bus and coach services from 8,600 daily passengers in 2029 to 13,400 in 2047.	O	Negative	<p>To produce a full Airport Surface Access Strategy which sets out clear commitments in relation to bus and coach travel.</p> <p>The Highway Authority would look for further engagement with coach and bus operators to ensure all potential route enhancements and bus priority measures have been considered to maximise the potential for sustainable travel to and from the airport, as far as is possible.</p> <p>To be secured in a control document or via requirement.</p>	<p>Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible.</p> <p>NPPF paragraph 110 states, "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:</p> <p>a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the</p>

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					<p>type of development and its location.”</p> <p>Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.</p>
17.1H	Enhanced and new regional coach services could have a potential positive impact by increasing the available options and attractiveness to travel via sustainable modes to and from the airport	O	Positive	No specific comments.	<p>Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible.</p> <p>Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.</p>

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
17.1I	Enhanced local bus service provision could have a positive impact by increasing available options to travel by sustainable modes to and from the airport.	O	Positive	No specific comments.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.
17.1J	Improvements to local walking and cycling infrastructure as part of the associated highway works providing a benefit when compared with the existing infrastructure provision	O	Positive	No specific comments.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. NPPF, paragraph 110b (requires the provision of safe and suitable access) and 112a (for development to give priority first to

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					<p>pedestrian and cycle movements).</p> <p>Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.</p>
17.1K	Increased traffic levels on the local network as a result of the Project result in a reduced propensity for people to walk and cycle on the local highway network	O	Negative	<p>The Applicant to review the need for further enhancements to active and sustainable travel provision to and from the airport to provide high quality walking and cycling routes between the local area and the airport.</p> <p>Crawley LCWIP has identified various routes between local areas and Gatwick Airport which could provide high quality connections to help meet the target modal splits set out within the Surface Access Commitments (APP-090) and to meet the requirement of the Airport</p>	<p>Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible.</p> <p>NPPF, paragraph 110b (requires the provision of safe and suitable access) and d (that any highway safety impacts can be cost effectively mitigated to an acceptable degree), and 112a (for</p>

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
				NPS to maximise sustainable transport as far as is possible.	development to give priority first to pedestrian and cycle movements). Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.
17.L	Potential increase in vehicle traffic associated with the Project is likely to increase the number of vehicle movements on the local road network which will cause resultant negative impacts on other road users, which could include	O	Negative	The Applicant to review the need for further enhancements to active and sustainable travel provision to and from the airport, to provide high quality walking and cycling routes and public transport provision. Any additional mitigation should be included within a revised Service Access Commitments document (APP-090) and secured by Requirement in the Draft DCO.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. NPPF, paragraph 110b (requires the provision of safe and suitable access) and d (that any highway safety impacts can be cost effectively mitigated to an

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	impacts on the perception of safety from other road users, delay, and road safety implications.				acceptable degree), and 112a (for development to give priority first to pedestrian and cycle movements). Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.
17.1M	The Applicant is heavily reliant on existing rail services and the introduction of parking charges to meet the target modal splits set out within the Surface Access Commitments (APPP-090).	O	Negative	The Applicant to review the need for further enhancements to active and sustainable travel provision to and from the airport to provide high quality walking and cycling routes and public transport provision. Consideration given to further monitoring and measures to mitigate non-compliance of the SACs.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. NPPF, paragraph 110b (requires the provision of safe and suitable access) and d (that any highway safety impacts can be

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Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	Should these modal splits not be achieved there is likely to be a larger highway impact than is forecast.				<p>cost effectively mitigated to an acceptable degree), and 112a (for development to give priority first to pedestrian and cycle movements).</p> <p>Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate.</p>
17.1N	Methodology used by the Applicant to identify number of new staff and passenger spaces is unclear. If the amount of parking provided on-airport results in an over-supply or	O	Negative	The Applicant should set out the methodology used to identify the amount of new staff and passenger parking, demonstrating how this achieves 'sufficient but no more' parking than is required proportionate to meeting its surface access commitments relating to public transport mode share.	<p>Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible.</p> <p>S106 Legal Agreement 2022 (GAL/WSCC/CBC) Obligation 5.6</p>

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	under-supply, this could negatively impact on achieving the Applicant's surface access commitments.				Gatwick Airport Surface Access Strategy 2022 Crawley Local Plan Policy GAT3
17.10	It is unclear if/how the updated 2023 Staff Travel Survey has been taken into account. It is possible that staff travel habits may have changed since previous (pre-pandemic) surveys.	O	Negative	Applicant should have regard to the results of the 2023 staff travel survey and explain if any changes in staff travel habits are considered relevant to the outcomes of its transport work and surface access commitments.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. S106 Legal Agreement 2022 (GAL/WSCC/CBC) Obligation 5.6 Gatwick Airport Surface Access Strategy 2022 Crawley Local Plan Policy GAT3
17.1P	The proposed monitoring framework does not demonstrate how remedial action, should it	O	Negative	The Highway Authority would look for the Applicant to adopt an approach similar to the Green Controlled Growth approach, adopted by Luton Airport, which restricts further development, or	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible.

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	be necessary if mode share targets are not met, will be secured nor what sanction will be in place should commitments remain unmet. This presents risk that airport growth comes forward in a manner that is not in sync with the surface access commitments.			passenger/ATM growth at the airport until specific modal split targets are met in relation to surface access. This revised approach to airport growth development would provide control and comfort that outcomes and modal split targets are to be met, rather than just a hope that they will be and the potential for several years of trying to address non-compliance with the modal split targets retrospectively.	S106 Legal Agreement 2022 (GAL/WSCC/CBC) Obligation 5.6 Gatwick Airport Surface Access Strategy 2022 Crawley Local Plan Policy GAT3
17.1Q	Baseline parking assumptions made by the Applicant include are not considered by the LPA to be accurate.	O	Negative	The proposed robotic parking provision should be included as part of the DCO. The Applicant should clarify if the Hilton Hotel Car Park has been lawfully implemented for this to be included in the baseline.	Airport NPS requires sustainable travel to and from the airport is maximised as much as is possible. S106 Legal Agreement 2022 (GAL/WSCC/CBC) Obligation 5.6 Gatwick Airport Surface Access Strategy 2022

Table 17.1: Summary of Impacts – Traffic and Transport					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					Crawley Local Plan Policy GAT3

Policy Context

National Policy Statements

- 17.6 The Authorities' consideration of the applicability of the Airports National Policy Statement (ANPS) and the National Networks National Policy Statement (NNNPS) is summarised at paragraphs 6.1-6.10 above.

Airports National Policy Statement (Department for Transport, 2018)

- 17.7 The ANPS sets out the need for additional airport capacity and the specific requirements of any airport expansion to obtain development consent. The policy primarily relates to a new runway at Heathrow Airport; however, it is also a relevant consideration in the determination of other applications for airport infrastructure in the South-East of England.
- 17.8 In terms of the Government's objective for surface access to airports paragraph 5.5 of the ANPS states it,
- "... is to ensure that access to the airport by road, rail and public transport is high quality, efficient and reliable for passengers, freight operators and airport workers who use transport on a daily basis. The Government also wishes to see the number of journeys made to airports by sustainable modes of transport maximised as much as possible. This should be delivered in a way that minimises congestion and environmental impacts, for example on air quality."*
- 17.9 The ANPS goes on to state that in paragraph 5.9, *"The airport surface access strategy must contain specific targets for maximising the proportion of journeys made to the airport by public transport, cycling or walking."*
- 17.10 The ANPS requires that the implications of airport expansion on surface access network capacity are assessed in accordance with the Department for Transport's (DfT's) Transport Analysis Guidance (TAG)²⁷

National Policy Statement for National Networks (2014)

- 17.11 The NNNPS provides the policy context against which decisions on major road and rail projects are made and is a material planning consideration in relation to the proposed highway improvements proposed as part of the scheme. In the context of the scheme the NNNPS relates to the Strategic Road Network, which predominantly consists of the M23 and M23 spur, which is managed and maintained by National Highways.

National Planning Policy Framework (NPPF)

- 17.12 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England at a national level.

²⁷ [Transport analysis guidance - GOV.UK \(www.gov.uk\)](http://www.gov.uk).

Paragraphs 110 and 111 in the NPPF, provide guidance on reviewing planning applications on transport grounds, with the policy stating,

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location.

b) safe and suitable access to the site can be achieved for all users.

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and

d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

Paragraph 111 goes on to state,

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Local Plan Policy

17.13 The relevant Development Plan to the scheme is the Crawley Borough Local Plan 2015 – 2030 which was adopted in December 2015. Local Plan policies relevant to the transport impact of the proposed scheme include:

- Policy IN1: Infrastructure Provision – states development will be permitted where the necessary infrastructure to support development is provided both on and off-site.
- Policy IN3: Development and Requirements for Sustainable Transport – requires that new development should meet the access needs they generate and identifies the need to assess the transport impacts of new development through the production of a Transport Assessment.
- Policy IN4: Car and Cycle Parking Standards – ensures that appropriate levels of parking are provided in new development.
- Policy IN6: Improving Rail Stations – requires any development at or near railway stations to enhance the role and access to the station.
- Policy GAT2: Safeguarded Land – details the safeguarded land for a southern runway.
- Policy GAT3: Gatwick Airport Related Parking – requires that any additional or replacement airport parking will only be permitted within the airport boundary and that all new proposals must be justified by a demonstrable need in the context of the proposals for

achieving a sustainable approach to surface transport access to and from the airport.

17.14 Following formal examination hearings, the Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft (February 2024) was published for consultation from 12 February to 25 March. The following policies are relevant to the transport impact of the proposed scheme (policies subject to Modifications marked with an asterix):

- Strategic Policy IN1: Infrastructure Provision* - Permits development where it is supported by, and coordinated with, the delivery and maintenance of necessary infrastructure both on and off site (including where this infrastructure is located outside of Crawley but serves development within Crawley). Developments which are required to submit a Transport Assessment in accordance with Policy ST1 should make reference to the council's Infrastructure Delivery Schedule.
- Policy IN2: The Location and Provision of New Infrastructure* - Supports the provision of new or improved Infrastructure in appropriate locations where the facilities are required to support development, where they improve the medium- or longer-term resilience of infrastructure in Crawley, or where they add to the range and quality of facilities in the town. The council's Infrastructure Delivery Schedule (IDS) and its updates identify a range of infrastructure projects aligned with these objectives.
- Strategic Policy ST1: Development and Requirements for Sustainable Transport – Sets out the overarching approach to sustainable transport in Crawley borough. It requires development to be located and designed to encourage travel via the walking and cycling network and public transport routes, while reducing dependency on travel by private motor vehicle. Developments must meet the access needs they generate and not cause an unacceptable impact in terms of increased traffic congestion or highway safety.
- Policy ST2: Car and Cycle Parking Standards* - Sets out the parking standards for development.
- Policy ST3: Improving Rail Stations - Improvements or developments at or within the vicinity of railway stations will be expected to enhance the specific roles of the individual stations and sustainable access to individual stations. Specific requirements are set out for each of the stations in Crawley Borough.
- Strategic Policy ST4: Area of Search for a Crawley Western Multi-Modal Transport Link* - The Local Plan Map identifies an Area of Search for a Crawley Western Multi-Modal Transport Link connecting the A264 with the A23, with specific policy criteria identified.

- Policy GAT2: Safeguarded Land* - The Local Plan Map identifies land that is safeguarded from development which would be incompatible with expansion of the airport to accommodate the construction of an additional wide spaced runway (if required by national policy) together with a commensurate increase in facilities that contribute to the safe and efficient operation of the expanded airport. Detail is provided on the types of small-scale development that will normally be considered acceptable within the safeguarded area.
 - Policy GAT3: Gatwick Airport Related Parking – The provision of additional or replacement airport-related parking will only be permitted where: i) it is located within the airport boundary; and ii) it is justified by a demonstrable need in the context of proposals for achieving a sustainable approach to surface transport access to the airport.
- 17.15 There are adopted Supplementary Planning Documents (SPDs) that are also material planning considerations to the DCO. These include the Urban Design SPD which provides further guidance on Local Plan policy, IN4 Car and cycle parking standards, by providing the parking standards for Crawley Borough.
- 17.16 Relevant policies in the Mid -Sussex District Plan (2018) include policy DP21: Transport. This policy requires development to support the objectives of the West Sussex Transport Plan. To meet these objectives, decisions on development proposals will take account of whether appropriate opportunities to facilitate and promote the increased use of alternative means of transport to the private car, have been fully explored. Where practical and viable, development should be located and designed to incorporate facilities for charging plug-in and other ultra-low emission vehicles.
- 17.17 The Horsham District Planning Framework (2015) includes the following relevant policies, Policy 41: Sustainable Transport makes a commitment to the development of an “integrated community connected by a sustainable transport system” in meeting any anticipated growth in transport demand. It supports proposals which “promote an improved and integrated transport network, with a re-balancing in favour of non-car modes as a means of access to jobs, homes, services and facilities”.
- 17.18 Policy 42: Parking seeks to deliver sufficient parking to meet the needs of the development being considered, and also deals with off-airport parking for Gatwick airport, stating: “Planning permission will not be granted for off-airport parking facilities related to Gatwick Airport unless a need can be demonstrated and all realistic alternatives have been examined”.

Other Relevant Local Policy

- 17.19 The relevant transport objective to Gatwick Airport in the West Sussex

Local Transport Plan 2022 – 2036 is objective 13. The objective seeks to, “Minimise the impacts on the transport network of surface access to Gatwick Airport by passengers and employees and ensure transport network improvements take the needs of other users and communities that share these routes into account.”

17.20 To meet the objective, the strategy supports various initiatives including, but not limited to, the following:

- Initiatives that will increase sustainable transport mode share for passengers and employees.
- Initiatives that will reduce kiss and fly trips (i.e. being dropped off and picked up at the airport).
- Manage the local road network near the Airport in ways that prioritise shared transport and manage impacts on communities.
- Use on-street parking and other traffic management techniques to discourage unauthorised drop offs and pick-ups.
- Promote improvements to the coverage of rail services, including earlier morning/late evening services to Gatwick Airport.
- Support connectivity improvements particularly on east-west sustainable transport routes between Gatwick, Kent and the Thames Valley.
- Subject to future planning decisions about the scale and location of development, explore the role of a multi-modal Crawley Western Link Road to support economic and housing growth.

Applicant’s Approach to the Assessment

17.21 WSCC is currently unable to fully conclude its position in relation to the overall approach to the assessment of the transport implications of the proposals. The Applicant has recently submitted further information in relation to the strategic transport modelling of the proposals, as required by the ExA in their Procedural Matters letter (PD-006), dated 24th October 2023. The Highway Authority are currently assessing this additional information and hope to provide further comment at Deadline 2, on 26th March 2024. Once this further transport modelling work has been fully assessed by the Highway Authority a clearer idea of the likely transport implications of the proposals will be known.

Construction Phase – impacts

Positive

- 17.22 The Project is not considered to offer any positive impacts on the local highway network during the construction phase.

Neutral

- 17.23 The Project is not considered to offer any neutral impacts on the local highway network during the construction phase.

Negative

- 17.24 The following paragraphs highlight the areas where the Project is considered to have negative impacts during the construction phase.
- 17.25 The Applicant has assessed the highway implications of both the airfield construction and the associated highway works construction. The busiest month for construction works of the airfield is expected to be December 2026 with 38,450 construction vehicles accessing the site, across the month. This comprises 16,360 construction workforce vehicles and 22,090 other construction vehicles, forming a mix of HGVs, LGVs and Livered Vans. However, the Applicant has stated that background flows around the airport are typically lower in December, and they have therefore assessed a June 2028 scenario, which they consider a worst case scenario. The monthly total construction vehicles have been assessed as 17,800. When split out over the working days and spread out over a 10 hour shift the estimated number of vehicle trips is 40 vehicles (HGVs and LGVs) in and out every hour. The main construction route is proposed to be the M23 spur onto the North Terminal roundabout, turning round at the Longbridge roundabout onto London Road (A23) and travelling to the main contractor compound in the southeast corner of the site. The Applicant has also forecast that there will be 360 construction worker vehicles travelling each way to and from the site in a working day in June 2028.
- 17.26 Clearly this forecast increase in vehicle trips, associated with the construction activities, will increase movements on the local road network including the percentage of HGVs. This is likely to negatively impact upon pedestrian delay and amenity and the perception of safety, especially from vulnerable road users and cause additional driver delay and road safety implications.
- 17.27 The Applicant has also assessed the highway impacts of the construction of the proposed highway works associated with the Project. The modelling work undertaken identifies various junctions that may be impacted due to the works taking place and the associated traffic management during construction. In Table 15.5.1 in the Transport Assessment (APP-258), at the locations of London Road/Airport Way/Gatwick, Longbridge Roundabout and London Road/A23, it is forecast that there would be increased delay and congestion for

approximately 6 months while the highway works are undertaken. Based on the current programme the delay from these works is due to take place in 2029 and will overlap with the increased activity associated with the operation of the Northern Runway. This is going to cause additional delays to all road users using this part of the network.

- 17.28 The modelling undertaken by the Applicant also highlights the potential for non-airport traffic to be redistributed during the highway works construction phases, as drivers seek to avoid the likely delays and use alternative routes. The modelling work shows increases in north-south traffic between Horley and Crawley rerouting via Balcombe Road and some traffic taking routes to the west of the airport from Ifield Avenue via Bonnets Lane, Lowfield Heath Road, Horley Road and Charlwood Road and into Horley via Povey Cross.
- 17.29 The magnitude of this change and additional vehicle movements is forecast to be in the region of 1,000 Annual Average Daily Traffic (AADT). The Applicant forecasts that this would be equivalent of a change of around 42 vehicles or more per hour on average.
- 17.30 The Applicant has produced an Outline Construction Workforce Travel Plan (APP-084). Whilst promoting positive measures to influence travel behaviour it lacks details and firm commitments about these, and further clarification is therefore required. For example, a commitment potentially involves increasing the frequency or capacity of buses to the construction site and another offering incentives or subsidies to contractors who chose to commute using public transport. However, no specific details are provided. Further clarity should be provided by the Applicant.
- 17.31 Given the nature and number of vehicle movements associated with the construction of the airport this is likely to have a detrimental impact on the condition of the road surface of the local highway network, especially because of the likely increase in HGV movements.

Operational phase - impacts

Positive

- 17.32 The following paragraphs highlight the areas where the Project is considered to have a positive impact during the operational phase.

Public transport bus and coach

- 17.33 As part of the Surface Access Commitments (APP-090) the Applicant has put forward various interventions to help meet the target modal splits. This includes new regional bus and coach services. The Applicant has analysed the catchment area for passenger and staff journeys to and from the airport and identified locations where there are a significant number of trips to the airport but relatively low public transport mode share. The Applicant is therefore proposing the following services:

Table 17.2 2: New regional bus & coach services proposed by the Applicant

Indicative Route	Frequency in future baseline	Indicative Frequency with Project
Chatham – Maidstone - Sevenoaks - Gatwick	Two hourly	Half hourly daytime Hourly early/late
Bexley – Foots Cray- Gatwick	N/A	Hourly
Tunbridge Wells – East Grinstead - Gatwick	N/A	Half Hourly
Worthing – Horsham - Gatwick	N/A	Hourly

17.34 The Applicant has committed to providing reasonable financial support to enable the services in the above table to sustain their operation for a minimum of five years. These new and enhanced services will have a positive impact in encouraging travel by sustainable modes to and from the airport, which is welcomed by the Highway Authority. However, it is questioned as to whether this level of provision goes far enough to maximise the potential for sustainable travel to and from the airport, as per the Airports NPS and to meet the target mode share commitments set out by the Applicant. The Highway Authority would also look for the Applicant to undertake further engagement with the bus and coach operators to confirm that they can deliver these services and to consider whether further mitigation, including to bus priority is required.

17.35 In addition to the proposed funding for regional coach services, the Applicant is also proposing enhancements to local bus services. They state their approach is to further strengthen the bus network within areas close to the airport where large numbers of staff are resident. The following routes, set out in the below table, are proposed for enhancement.

Table 17.3 3: Proposed routes and frequencies for enhanced local bus services

Indicative Route	Frequency in future baseline
4/5	6 buses per hour (bph) daytime 4 bph early/late
10	10 bph daytime

Indicative Route	Frequency in future baseline
	6 bph early/late
20	6 bph daytime 4 bph early/late
22	2 bph in peaks 1 bph other times
100	6 bph daytime 4 bph early/late

17.36 The Applicant has offered reasonable financial support to sustain the operation of the above-mentioned bus services for a minimum of five years. As with the coach service provision, it is questioned as to whether this level of provision goes far enough to maximise the potential for sustainable travel to and from the airport, as per the Airports NPS and to meet the target mode share commitments set out by the Applicant. Also, beyond this five-year commitment, the Applicant appears to rely on bus operators to provide additional services as the market requires. The Highway Authority would look for the Applicant to further engage with bus and coach operators to demonstrate the willingness of operators to provide these services and to establish whether additional routes and services are required and if measures to increase the attractiveness of services are required, including through bus priority measures.

Walking and cycling

17.37 The Applicant is proposing highway works along the M23 spur, to both the South and North Terminals and through to Longbridge Roundabout. The works to the WSCC network are predominantly along London Road (A23). These works have the potential benefit of improving the quality of the infrastructure for walking and cycling from what is currently in place.

17.38 In relation to these highway works there is outstanding technical information that needs to be provided by the Applicant before the Highway Authority are in a position to agree to these works. This includes:

- A Stage 1 Road Safety Audit and Designers Response;
- A Design Review of the highway works; and
- Justification for the proposed speed limits against the relevant WSCC Speed Limit policy.²⁸

²⁸ [West Sussex Speed Limit Policy](#)

Neutral

17.39 The following paragraphs highlight the areas where the Project is considered to have a neutral impact during the operational phase.

Rail

17.40 The forecast impact from the Project on the Arun Valley Line services is considered to be largely neutral. Whilst the forecast Seated Load Factors of the train services would be slightly higher with the Project in place, the highest load factor of one would be unchanged from the future baseline. There is therefore considered to be sufficient capacity and spare standing capacity on rail services on the Arun Valley Line.

17.41 The forecast impact from the Project on the North Downs Line is also considered to be largely neutral. Apart from in the 2047 future year scenario between 07:00 and 08:00. In this scenario the seated load factor would increase above one and there would be no spare seating capacity between Redhill and Reigate. However, this impact would occur in the future baseline scenario, without the Project, and is not considered to be worsened by the Project.

Negative

17.42 The following paragraphs highlight the areas where the Project is considered to have a negative impact during the operational phase.

Rail

17.43 A summary table of the Project's impact on the Brighton Main Line (BML) rail services is set out below:

Table 17.4 4: Summary Table of the Project's impact on the Brighton Main Line rail services

	Highest increase in line loading as a result of the Project	Forecast Seat Load Factor in 2047	Forecast Standing Capacity in 2047
Brighton Main Line Northbound AM Peak Hour	380 passengers in 2047	Seat Load Factor would exceed one in all fast rail services on the BML route north of Gatwick.	20% standing capacity occupied between Gatwick and East Croydon. 50% standing capacity occupied between East Croydon and

			London Bridge/Victoria.
Brighton Main Line Southbound PM Peak Hour	570 passengers in 2047	Between London Bridge/Victoria seated local factors exceed one.	Between 20% and 55% standing capacity occupied between London Bridge/London Victoria. 20% standing capacity occupied between East Croydon and Gatwick Airport.

- 17.44 The impacts of the Project are forecast to increase the number of rail passengers on the rail services on the BML. The line loading and seated load factors are forecast to increase, and seated load factors would exceed one and the standing capacity occupied would also increase. It is however forecast that spare standing capacity would remain.
- 17.45 In the northbound network AM peak hour, the highest increase in line loading due to the Project would be 330 passengers in 2047. In 2047 it is forecast that the Seated Load Factor would exceed one on all fast rail services on the majority of the BML route north of Gatwick Airport. The Applicant has forecast that the Project would add 3 percentage points to the standing capacity occupied on services. This would equate to 20% standing capacity occupied between Gatwick Airport and East Croydon and around 50% occupied between East Croydon and London Bridge/Victoria. Whilst spare standing capacity would remain in the northbound network peak hour, passengers are forecast to experience higher train occupancy levels and increased levels of standing.
- 17.46 In the southbound network PM peak hour, the largest increase in line loading due to the Project is forecast to be around 570 passengers in 2047. Between London Bridge/Victoria and Gatwick Airport where seated load factors are forecast to exceed one, the Project would add 7 percentage points to the standing capacity occupied. This would equate to the standing capacity between 20% and 55% occupied between London Bridge/London Victoria and East Croydon and 20% occupied between East Croydon and Gatwick Airport. Whilst spare standing capacity is forecast to remain on the rail services on the BML, passengers are forecast to experience higher train occupancy levels and increased levels of standing as a result of the Project.
- 17.47 As well as assessing the network peaks, the Applicant has also assessed the implications of the Project on the rail network during the Project's peaks. In the southbound direction, there would be increases to line loading, but spare seated capacity would remain. In the northbound

direction, the highest increase in line loading would be 1,400 passengers in 2047. The seated load factor would exceed one at East Croydon on services to London Bridge and the occupied standing capacity would be at 24% with the Project in place. Spare standing capacity would be available, but passengers are going to experience higher train occupancy levels and increased levels of standing as a result of the Project, in the peak hours forecasted.

Public Transport bus and coach

- 17.48 When assessing the proposals, the Applicant has used a public transport model that includes the relevant bus and coach services that serve the airport. Crowding on bus and coach services has not been specifically assessed as part of the DCO submission. Within the Applicant's Transport Assessment (APP-258, at paragraph 85) they state, "Based on GAL's experience, bus and coach operators respond to sustained increases in demand by increasing the number of services. GAL holds regular discussions with operators which will help to anticipate potential changes in demand. Given this adaptability crowding on bus and coach services has not been assessed explicitly. The assessment considers service coverage, frequency, and quality as a measure of public transport amenity and is used to test proposed routes and services that could support achieving GAL's mode share commitments."
- 17.49 The Applicant has forecast that the demand for bus and coach services could increase from approximately 8,600 daily passengers in the future baseline in 2029 to 13,400 daily passengers with the scheme in 2047. This could increase levels of crowding on local bus services at certain peak times and reduce the availability of passenger coach services and therefore deter people from using bus and coach services to travel to and from the airport via sustainable means.
- 17.50 Beyond the Applicant's Surface Access Commitments (APP-090), in relation to funding several bus and coach services for a minimum of five years, the Applicant appears to rely on bus operators to provide additional services as the market requires. The Highway Authority would look for the Applicant to further engage with bus and coach operators to demonstrate the willingness of the operators to provide these services and to establish whether additional routes and services are required to maximise the potential of sustainable travel to and from the airport.
- 17.51 Mid-Sussex District Council is of the view that the Applicant has not done enough to support the provision of frequent and convenient alternative mode of transport for Mid Sussex. This is surprising given the role Mid Sussex has in providing the labour market for the Project during construction and in operation. A significant number of residents will also use the airport as passengers. It is noted, as set out in Table 17.3 above, the Applicant is seeking to improve the frequency of several bus services but none of these are in Mid Sussex. The Applicant also indicates that the frequency of some longer bus/coach routes from the east of Gatwick will be increased. Whilst this is welcomed further

information on routing, frequency and times of these routes is required to understand if this proposal will offer a frequent and convenient alternative to the private car, for both passenger and employees living in Mid Sussex.

- 17.52 There is also a commitment to “*provide reasonable support for direct services from Crawley Down and Copthorne to improve local accessibility to the airport*”. [APP-090 commitment 7]. This could be used to deliver the Applicant’s mode share commitments, providing frequent and convenient sustainable transport to the airport.
- 17.53 Horsham District Council are of the view that the Applicant should consider ways to enhance the provision of sustainable and active travel modes, in particular bus and coach routes, between Horsham and the airport. The Number 200 bus which currently runs between Horsham and Gatwick should be reviewed as a minimum, with a more direct service put in place to encourage uptake of public transport over private vehicle preferred. Not only would this assist the applicant in meeting their mode share targets, it would also improve air quality and transport impacts felt in the north of Horsham district.

Walking and Cycling

- 17.54 Given the forecasted increases in vehicle movements associated with the operational phase of the Project, these are likely to lead to additional vehicle movements on the local highway network. This could result in a reduced propensity to walk and cycle on these routes as it is less attractive to do so. This is considered to be the case even with the proposed walking and cycling improvements the Applicant is proposing in the vicinity of the airport.

Highway Network Impacts

Transport Modelling

- 17.55 WSCC is currently unable to fully conclude its position in relation to the overall highway impacts of the operational phase of the Project. The Applicant has recently submitted updated strategic transport modelling information that seeks to address the points raised by the ExA in their Procedural Matters letter (PD-006), dated 24th October 2023. Once this further transport modelling work has been fully assessed by the Highway Authority a clearer idea of the likely traffic implications of the proposals will be known. The Highway Authority plan to provide further comment on the latest submission by the Applicant at Deadline 2, 26th March 2024.
- 17.56 Based on the information submitted as part of the DCO submission the Highway Authority have the following comments to make in relation to the transport modelling. To fully understand the strategic modelling the Highway Authority would look to have sight of any modelling reports produced including the Local Model Validation Report, Forecasting Report and the model files for the various scenarios.

- 17.57 In addition to the strategic modelling work, the Applicant has also undertaken a Vissim microsimulation assessment of the proposed highway works and surface access changes along the M23 spur, access to the airport terminals and Longbridge roundabout. The microsimulation network covers the junctions accessing both airport terminals and extends east to include the M23 Junction 9 and south to include Gatwick Road roundabout and Lowfield Heath roundabout. The available reports within the submission (Transport Assessment APP-258 through to APP-263) do not provide detail about how the model was developed or how well it validates. A copy of the model validation report should be shared with the Highway Authority.
- 17.58 The report should include further information to better demonstrate the satisfactory operation of the proposed North Terminal signalised junction with the expected future traffic levels. Currently the analysis relies on heat maps of vehicle speed and journey time routes. A more detailed narrative around queue lengths, or the provision of junction modelling outputs should be provided, to enable the authority to better understand the impact on the network. Additional modelling results should be obtained from Vissim, including vehicle delays or plotting queue length over time to demonstrate that the junction is forecast to operate satisfactorily. A LINSIG assessment of the signalised junction should be undertaken, and the outputs of this modelling provided, such as the Practical Reserve Capacity (PRC) and the Degree of Saturation (DoS), to better quantify the performance and capacity of the junction. Additionally, a summary of demand matrix changes that have been applied in the Vissim model for each future scenario would be useful to better understand the impacts presented.

Growth Forecasts

- 17.59 There are also concerns that the level of growth assumed by the Applicant is too high, these concerns are supported by the assessment made by York Aviation (see Chapter 6 and Appendix F). This could be resulting in an over forecast of the demand and therefore over provision of car parking and highway elements of the infrastructure. The Applicant should review the comments made by York Aviation and provide realistic forecasts for airport capacity and resultant demand generated and consider what infrastructure is required to support this level of resultant demand.

Airport Related Car Parking

- 17.60 Environmental Statement Chapter 4 (Existing Site and Operation) sets out that there is an existing provision for 40,611 short and long-stay passenger parking spaces, plus 6,090 staff spaces (46,701 in total). Detail of parking provision associated with the Northern Runway Project is set out at Environmental Statement Appendix 5.4.1 (Surface Access Commitments) where it is advised that up to 6,750 additional car parking spaces would be provided as part of GAL's 'business as usual' operations, to be delivered under permitted development rights, increasing parking to approximately 53,270 spaces for staff and

passengers. The Applicant proposes a further 1,100 passenger spaces through the Northern Runway Project, bringing the total parking provision (passengers and staff) to 54,370 (as per Para 7 of the Transport Assessment).

- 17.61 As discussed at paragraph 17.8 above, through the ANPS, the Government wishes to see the number of journeys made to airports by sustainable modes of transport maximised as much as possible. Through the existing 2022 s106 Gatwick Airport Legal Agreement (signed by CBC, WSCC and GAL), commitments are in place to promote sustainable travel, commensurate with a target of 48% of passengers travelling to the airport arriving by public transport. The Gatwick ASAS sets out longer-term objectives, including a target for 52% of passenger access by public transport by 2030. Combined with Crawley Local Plan Policy GAT3, and equivalent policies for the other Gatwick Local Authorities, these documents represent a joined-up overall strategy for reducing passenger reliance on private vehicles and achieving a greater modal share from sustainable transport access. The approach recognises airport parking should only be located within the airport boundary as this the most sustainable location, with the airport operator providing 'sufficient but no more' parking than is required to ensure sufficient parking is available on-airport to those who choose to drive or have no other option, whilst encouraging the use of sustainable alternative transport modes as per its Surface Access Commitments.
- 17.62 CBC coordinates an annual Gatwick Airport Parking Survey to monitor the number of authorised and unauthorised airport-related parking spaces that are in operation on and off-airport. The most recent survey undertaken in September 2023 recorded a total of 62,225 authorised spaces at on and off-airport locations, within which 42,453 vehicles were parked. The survey also recorded 3,507 vehicles parked at unauthorised sites. The survey identifies total authorised on-airport parking provision of 43,690 spaces, this figure including spaces operated by the Applicant and other on-airport operators. 33,076 authorised on-airport spaces were occupied, with 29,052 vehicles parked in GAL-operated spaces, and 4,024 parked in other on-airport locations. A summary of the 2023 Gatwick Airport Parking Survey results is enclosed at Appendix I.
- 17.63 If the Applicant is to deliver upon its Surface Access Commitments, it is vital that an appropriate balance is struck in ensuring that sufficient parking is available on-airport to meet the needs of passenger who choose to travel to the airport by private vehicle, whilst also ensuring that there is not an over-provision of parking that would act as a disincentive for passengers to access the airport by way of public transport. This approach is captured within Obligation 5.6 of the current S106 legal agreement between GAL/WSCC/CBC, which requires 'sufficient but no more on-airport car parking spaces than necessary' to ensure that surface access commitments are met. Along with the Gatwick Airport Surface Access Strategy (most recent version 2022) and (for Crawley) the adopted Local Plan and Modifications Local Plan Policy GAT3, the S106 agreement forms part of an overall strategy to ensure that airport-related parking is appropriately managed in the most

sustainable way.

- 17.64 It is agreed that providing any necessary new parking on-airport, where justified by a demonstrable need, is the most sustainable strategy, as per the approach of Policy GAT3 of the adopted and emerging Crawley Local Plans. However, the methodology used by the Applicant to identify the overall increase in parking numbers, and therefore how the parking numbers fit within the overall strategy and commitments for sustainable surface access, remains unclear. It is currently unclear if/how the increase in spaces is proportionate to the overall increase in passenger numbers whilst reflecting the updated sustainable mode share commitments set out in ES Appendix 5.4.1. Full justification should be provided for the number of parking spaces proposed, in the context of achieving ambitious reductions in car use to the airport. It is important this is clarified, as an over-provision of on-airport spaces may encourage greater travel to the airport by private vehicle, whilst an under-supply of spaces may result in an increase in unauthorised parking at less sustainable off-airport locations. Either scenario would undermine the ability of the Applicant to achieve the required surface access commitments.
- 17.65 Environmental Statement Chapter 5 (APP-030) details car parking areas and spaces to be lost and replaced. We note that some 3,345 'Summer Special' spaces would be lost, an offer that is at the more affordable end of GAL's pricing range. The Applicant should clarify that it intends to retain the range of pricing and parking packages that are currently available on-airport. This is important, as ensuring on-airport parking is available at a range of price points will encourage those passengers who choose to travel by private vehicle to use on-airport parking. It is important that the Applicant balances the supply of parking to encourage increased passenger access by sustainable transport mode, whilst ensuring that its on-airport offer is sufficiently attractive to deter those customers who choose/need to drive from using less sustainable off-airport car parks. If such flexibility in pricing is not available, this is likely to incentivise the use of cheaper parking in off-airport locations, undermining the ability of the Applicant to meet its Surface Access Commitments.

Permitted Development Rights

- 17.66 It is recognised that the Applicant has extensive permitted development rights which include the provision of parking, and there is concern that there is no control through the DCO or proposed s106 agreement to prevent these being used to create an overprovision of parking in the future, undermining the surface access commitments. It is considered that the Applicant should waive permitted development rights for additional on-airport parking, as this would enable the Local Planning Authority to effectively control the provision of future airport parking and ensure that Gatwick provides sufficient but no more parking than is required to support its sustainable strategy for airport access.

Baseline Parking Assumptions

- 17.67 The Hilton Hotel car park is on private land outside the control of GAL. Outline planning permission was granted subject to conditions and a S106 Agreement requiring payment of a 'tree mitigation contribution' of £44,100 which was paid in November 2019. A subsequent Reserved Matter application was approved in March 2020. The Applicant was granted permission under a Section 73 application (CR/2020/0575/NCC) to vary the plans and building height, however this did not alter the time limit for implementation and the permission was not renewed as suggested by GAL (see ES 4.4.6). The development should have commenced by 5th March 2022. While conditions have been discharged in respect of various conditions on the decision notice CR/2020/0575/CC1 (condition 5 – Construction Management Plan) and CR/2020/0575/CC2 (condition 3 – materials, condition 7 – lighting and condition 12 sustainability) and the S106 payment made, in order for the permission to be extant development should have commenced on site. The Applicant states that works are expected to recommence in 2023 or 2024 however, it has not been evidenced to date to the CBC as the Local Planning Authority that the application has been lawfully implemented so the permission could have lapsed and therefore cannot be relied upon. It should also be noted that notwithstanding the status of the application, condition 4 limits the use of the car park to staff, visitors and guests of the Hilton (South Terminal), the use of the parking spaces are therefore not under the direct control of the the Applicant.
- 17.68 The robotic parking at the South Terminal Long Stay Car Park, Zone B application made under Class F, Part 8 of Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015 related to a section of the Zone B car park which was to be fenced off to create 270 parking spaces (100 spaces net increase) for a robotic parking trial for a 3 month period. Due to the limited duration and limited overall net increase in space it was not considered to have any impact on longer term surface access strategies for the airport and that the trial should inform future plans for surface access. No further evidence or consultation has been provided by the Applicant about the results of the trial and at this point there is no certainty that this technology will deliver the 2,500 car parking space increase.
- 17.69 The Applicant advises that the proposed increase in spaces via robotic parking would come forward as Permitted Development through a phased approach, with CBC to be consulted at the appropriate times. As part of PDR consultation, CBC would ask the Applicant to demonstrate that a proposed increase in parking is justified by evidence of demonstrable need and having regard to GAL's surface access commitments as per Local Plan Policy GAT3 and the S106 legal agreement. The Applicant appears to be assuming that all 2,500 PDR parking spaces can be taken as a given at this stage. However, this assumption is made some way in advance of the individual PDR consultations that the Applicant advises would be submitted in 2024/25/26. Given that each of those PDR consultations would be expected to be supported by sufficient evidence to demonstrate

'sufficient but no more parking' than is needed to ensure the Applicant's mode share obligations can be met, it is not considered appropriate for the Applicant to simply assume, without providing justification through evidence, that 2,500 robotic spaces coming forward through PDR can be considered as forming part of the baseline. Crawley as Local Planning Authority therefore wishes to reiterate that it does not agree with the Applicant's assumption that 2,500 robotic parking spaces (proposed by GAL as permitted development) can form part of the baseline. If implemented on a permanent or more intensive basis, this would significantly increase parking capacity, and the full highway impact of which would need to be properly assessed. It would be logical for this to be included as part of the DCO itself, therefore avoiding any ambiguity.

17.70 In summary, the delivery of circa 3,300 parking spaces stated in the baseline is questionable.

Staff Parking

17.71 It is noted that the proposed 1,100 space increase in passenger spaces for the DCO element of the Project appears to come at the expense of staff parking provision, where a loss of 1,150 staff spaces is proposed. Environmental Statement Chapter 4 (Existing Site and Operation) identifies an existing provision of 6,090 staff spaces, which subtracting the 1,150 staff spaces lost (para 5.2.84 APP-030 Environmental Statement Chapter 5 Project Description) would leave 4,940 staff spaces. We note that no new staff spaces are proposed. If staff spaces are to be lost, is this because the Applicant is assuming for a reduction in the number of staff spaces in line with an increased proportion of staff accessing work by sustainable transport modes? The Applicant should provide explanation as to how this approach fits with there being increased staff as a result of the Project. It is understood that the Applicant has received initial results from its updated 2023 staff travel survey. The Authorities understanding is that much of the Applicant's evidence is relying on data from the 2016 and 2019 staff surveys, and there is a question as to how robust this approach is if the 2023 survey is showing changes in staff travel habits since the earlier surveys.

Modal Splits

17.72 The Applicant, within the Surface Access Commitments (APP-090) commits to achieving the following annualised mode shares by the third anniversary of the commencement of dual runway operations and on an annual basis thereafter:

- Commitment 1 - A minimum of 55% of air passenger journeys to and from the Airport to be made by public transport;
- Commitment 2 - A minimum of 55% of airport staff journeys to and from the Airport to be made by public transport, shared travel and active modes;

- Commitment 3 - A reduction of air passenger drop-off and pick-up car journeys at the Airport to a mode share of no more than 12% of surface access journeys; and
- Commitment 4 - At least 15% of airport staff journeys originating within 8km of the Airport to be made by active modes.

- 17.73 With the dual runway operations forecast to commence in 2029, the third anniversary is to be 2032. This also constitutes the year the Applicant forecasts the supporting highway works would be complete.
- 17.74 There is concern that these modal split commitments are less ambitious than previously suggested and included in earlier Gatwick documentation. The Preliminary Transport Assessment Report (PTAR) dated September 2021 set more ambitious targets for both passenger and staff travel and to a shorter horizon year of 2030. This report stated the target was for 60% sustainable travel (active travel and public transport) for passengers and 60% of staff journeys by sustainable modes (public transport, active travel modes and group travel provided by individual employers for their staff), by 2030. The DCO submission is only targeting 55% of passengers and staff travel to be sustainable and by 2032.
- 17.75 It is noted that the current S106 Legal Agreement between GAL/WSCC/CBC refers to 'non-transfer passengers' within the context of mode share targets, whereas the Surface Access Commitments (APP-90) refers to 'air passenger journeys'. It would be helpful if the Applicant could clarify if the different terminologies used represents a change of approach to that of the current S106 agreement, whether it will continue to ensure that sustainable mode share percentages can be compared on a like-for-like basis with previous years.
- 17.76 Gatwick's Second Decade of Change document²⁹, which sets out the airports sustainability policy to 2030, set out various targets in relation to sustainable and active travel to and from the airport.
- 17.78 In the Airport Surface Access Strategy 2022 – 2030³⁰, issued October 2022, Gatwick Airport Limited (GAL) set various targets in relation to sustainable travel by 2030. The document states, "Our Decade of Change target sets a goal of 60% of journeys by 2030 via public transport or ultra-low/zero emission journey modes." Underpinning this target is various specific modal split targets which includes an aim to have 50% rail mode share for airport passengers by 2030.
- 17.79 These targets are more ambitious than the commitments included within

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<https://www.gatwickairport.com/company/sustainability.html#:~:text=As%20part%20of%20our%20Decade,%20Dlow%20emissions%2C%20by%202030.>

³⁰ https://www.gatwickairport.com/on/demandware.static/-/Sites-Gatwick-Library/default/dw40d115e6/images/Corporate-PDFs/Sustainability/Surface-access-reports/Surface_access_strategy.pdf

the Surface Access Commitments (APP-090) associated with the DCO. The DCO commits to having a minimum of 55% of passenger journeys to and from the airport to be made by public transport. Whilst target 3 within the ASAS 2022-2030 targets 50% of passengers via rail. If that is achieved the percentage of travellers travelling by public transport would be in excess of 55%. In 2019 rail travel to the airport consisted of 41.3% of all travel, whilst bus and coach travel consisted of 6.1% of all travel.

- 17.80 It is not evident why the Applicant is offering less ambitious sustainable transport targets than they have previously in other documentation, nor how this target meets the Government's requirement within the Airport NPS to, "... see the number of journeys made to airports by sustainable modes of transport maximised as much as possible."
- 17.81 Tables 8.6.2 and 8.6.3 within the Transport Assessment (APP-258) detail the forecast trips and resultant modal splits for travel by rail and bus and coach in future scenario years, both with and without the Project. In a 2032, with Project scenario, the forecast modal split for public transport is 52.24% (rail 43.98% and bus & coach 8.26%). This falls below Commitment 1 in the Surface Access Commitments (APP-090) to achieve a minimum of 55% of air passenger journeys to and from the airport by public transport by 2032. The modal split commitments are therefore considered to be less ambitious than previously stated by the Applicant in other documentation and the modelling indicates that they will not be met by 2032.
- 17.82 In relation to staff travel, Tables 8.6.6 and 8.6.7 indicate that public transport modal split for staff would be 39.92% (rail 16.15% and bus & Coach 20.77%). In order to meet the SACs staff travel commitment, travel via active modes and car sharing would have to make up the remaining shortfall to meet a target of 55% of staff journeys to be via public transport, shared travel or active modes.
- 17.83 Should the commitments within the Surface Access Commitments (APP-090) not be met, as appears to be forecast by the modelling, the Applicant commits to producing an action plan to identify such additional interventions which they consider reasonably necessary to correct the issues of non-achievement. If two successive Annual Monitoring Report (AMR) show the targets have not been met, the Applicant commits to providing a further action plan which will be provided to the TFSG so that the group can consider this and comment on it and either approve or reject the plan. Given the annual nature of the AMR, long periods of time could pass when the SACs are not being met and it is not clear whether the additional measures put forward by the Applicant are successfully addressing the identified issues. There also does not appear to be any sanction should the SACs be regularly missed. The Highway Authority would therefore look for the Applicant to adopt an alternative approach to development at the airport, to something similar to the Green Controlled Growth approach, adopted by Luton Airport, which restricts further development, or passenger/ATM growth at the airport until specific modal split targets are met in relation to surface access.

This revised approach to airport growth would provide control and comfort that outcomes and modal split targets are to be met, rather than just a hope that they will be and the potential for several years of trying to address non-compliance with the modal split targets retrospectively.

- 17.84 Rather than the Applicant committing to achieve annualised mode share targets by the third anniversary of the commencement of dual runway operations and annually thereafter, as is currently the case in the Surface Access Commitments (APP-090), the dual runway operations could not start until the modal split targets have been met and the agreed outcomes in terms of sustainable surface access met. This revised approach ensures the same outcomes, in that the development comes forward and the modal split targets are met, however the uncertainty as to whether the modal split targets are met is removed.

Required Mitigation

- 17.85 The Applicant, as part of their submission for DCO, have offered the following mitigation to address the transport implications of the Project.
- 17.86 The following mitigation is to be secured via S106 legal agreement, as outlined in the Surface Access Commitments (APP-090).
- Funding for parking controls. The Authorities welcome Commitment 8 whereby the Applicant will fund support for effective parking controls and monitoring on surrounding locations if necessary and support LAs in enforcement action against unauthorised off-airport passenger car parking. At the time of the September 2023 Gatwick Parking Survey, there were a total of 3,507 (3,019 off-airport which includes 1397 vehicles in Crawley, 1511 in Mid Sussex and 322 in Horsham) unauthorised parking spaces in the Local Authority areas around Gatwick Airport. Enforcement Action takes significant local authority staff resource and often ends in planning appeal situations. Constraints on the availability of on-site parking may put additional pressure on off-site/ unauthorised parking. The applicant should provide a reasonable level of financial resources to support this Local authority role. It is important that the Applicant provides 'sufficient but no more' parking on-airport than is required, consistent with its surface access commitments, as an under-provision on-airport may increase the number of unauthorised spaces in off-airport locations. The commitment should be clear that this support is offered in the context of GAL achieving its sustainable access targets/commitments. There is a need for greater detail as to how this support will be funded.
 - A Sustainable Transport Fund (STF) to support measures to achieve the mode share commitments. Measures set out in the Surface Access Commitments (APP-090) include the provision of new and enhanced regional and local bus and coach enhancements, for a minimum period of five years, parking controls and monitoring on surrounding streets and measures to promote and encourage walking

and cycling. The STF is an existing measure, calculated as a levy on the number of available air passenger car parking spaces and the number of staff parking permits issued each year. The current STF is also partly funded by monies from any Red Route Infringements, and since 2020, there has been a financial contribution from forecourt charges. Continuation of the STF is welcomed. However, it is noted that the Airport will have more passengers and fewer spaces (which is consistent with the sustainable mode share obligations), but because the STF is partly linked to the number of passenger spaces, the STF will effectively be receiving less funding as a percentage of passengers at a time when more funding is needed to support sustainable access to the airport to offset that increase in passenger numbers. Paragraph 5.2.12 of the Surface Access Commitments refers to the forecourt charge continuing to contribute to the SFT, but it no longer refers to monies from Red Route infringements contributing. Given the need to offset increased passenger numbers with improved sustainable transport opportunities, if there were to be a proportionate reduction in Applicant's financial contribution to sustainable transport, this would be a significant concern given the important role of the STF in supporting sustainable access to the airport.

- A Transport Mitigation Fund (TMF) to deliver the relevant Surface Access Commitments (APP-090) and to support further interventions, particularly should the need arise for additional measures as a result of airport growth.

17.87 The following mitigation is proposed to be secured via a Requirement in the Draft DCO.

- Surface access improvements through proposed airport access highway works between junction 9 of the M23 and Longbridge roundabout – Draft Requirement 5 (Local highway works- detailed design)
- The OCTMP (APP-085), including measures to control the timing and routing of construction traffic – Draft Requirement 12 (Construction traffic management plan)
- Outline Construction Workers Travel Plan (APP-084), including measures to encourage and incentivise the use of public transport by construction personnel – Draft Requirement 13 (Construction workforce travel plan)
- Commitment to comply with the Surface Access Commitments (APP-090), including measures relating to mode share commitments, support for public transport usage, parking controls and monitoring and reporting measures. Monitoring and reporting will be issued annually to the Gatwick Airport Transport Forum Steering Group for information – Draft Requirement 20 (Surface access)

17.88 The Authorities comments in relation to the draft DCO are contained within Appendix M.

- 17.89 The Highway Authority, whilst welcoming elements of the mitigation put forward by the Applicant within their Surface Access Commitments (APP-090), is concerned that elements of the surface access strategy interventions remain unspecified, and no detail is provided in relation to them to ensure certainty of outcome. For example, whilst the Applicant commits to provide funding for the support of effective parking controls and support to local authorities in their enforcement actions against unauthorised off-airport car parking, no specific details are provided. Similar concerns are also raised in relation to the lack of specific detail to the financial support for regional bus or coach services and local bus services and whether the operators are committed to the delivery of these services. Whilst the assumptions to inform the modelling about the charges for car parking and forecourt access are included in paragraph 7.3.5 of the Transport Assessment (APP-258) no specific details are set out in the SACs. The introduction of measures to discourage single-occupancy private car use and measures to incentivise active travel are also not specifically set out.
- 17.90 Additionally, minimal detail of the TMF is provided within the Surface Access Commitments (APP-090). It is not apparent as to how this is to be funded, the size of the fund and what nature and scale of improvements it could assist in delivering. It is also not apparent as to whether this fund would be solely for the applicant to implement projects or whether other parties such as Highway Authorities could use this fund to implement necessary schemes required by the Transport Forum Steering Group (TFSG) to mitigate the direct impacts of the Project. If other organisations could implement schemes this fund should cover the total costs of any projects, covering both capital and revenue expenditure.
- 17.91 The Applicant should provide specific details of this mitigation and the specific measures that underpin the headline promises made within the Surface Access Commitments (APP-090).
- 17.92 In addition to the mitigation put forward by the Applicant, WSCC, as Highway Authority, considers that the following mitigation should also be provided.
- Green Controlled Growth – like that adopted by Luton Airport, the Highway Authority would look for the Applicant to adopt a sustainable growth agenda where the growth of the airport is linked to the meeting of the relevant targets associated with surface access transport.
 - Airport Surface Access Strategy (ASAS) – The Highway Authority would also look for an Outline Airport Surface Access Strategy (ASAS) to be produced detailing how the Surface Access Commitments (APP-090) could form into a robust strategy to promote and encourage active and sustainable forms of travel to and from the airport. The Applicant has committed to producing a new ASAS but only subject to the DCO consent being granted. In order to provide clarity, certainty of outcome and sufficient detail on the proposed measures and mitigation the Highway Authority

are of the view that an Outline ASAS should be submitted as part of the consideration of the DCO, with the need to produce an updated ASAS, for agreement with the relevant authorities, should the DCO consent be granted as part of Requirement 20. This approach would also be in line with the approach taken by the Applicant in producing an outline level documents for the Construction Traffic Management Plan (APP-085) and the Construction Workforce Travel Plan (APP-084). Should an Outline ASAS be submitted the wording of Requirement 20, in the draft DCO, would have to be amended to reflect this.

- OCTMP – The Highway Authority are content with the approach of an outline level CTMP (APP-085) being produced, with a view to producing a final CTMP prior to commencement of any construction activity, in agreement with the Highway Authority. However, there are points of clarification relating to the outline document that need to be addressed prior to determination. These include:
 - Clarification should be provided as to what events or conditions will lead to the contingency construction routes being used.
 - No commitment is made to deploying road sweepers on the highway network to ensure detritus is regularly cleared from the carriageway. The Highway Authority would look for this commitment.
 - Despite the construction routes going on and near to local schools there is no commitment to avoid construction traffic movements on these routes at the start and end of the school day. The Highway Authority would look for this commitment.
 - The measures, put forward by the Applicant, to reduce the risks construction traffic poses are primarily focused on the contractors and having contractors with relevant accreditations. Additional mitigation could be focussed on other road users who are going to have to interact with the construction traffic associated with the Project. Training events, funded by the Applicant, could be offered to the local community and to specific audiences such as local large employers and schools near the construction traffic routes. These training events could be specifically tailored to ensure all road users, but specifically cyclists, are aware of safe road positioning and make them aware of HGV blind spots and the Projects construction traffic routes, so other road users' behaviours can be positively altered to reduce the likelihood of accidents involving construction traffic.
- Outline Construction Workforce Travel Plan - The Highway Authority are content with the approach of an outline level CWTP (APP-084) being produced, with a view to producing a final CWTP prior to commencement of any construction activity, in agreement with the Highway Authority. However, there are points of clarification relating to the outline document that need to be addressed prior to determination. The Applicant puts forward various potential measures that include improvements to walking routes, provision of

site shuttle buses, collaboration with local authorities to improve public transport routes to the construction site, offering incentives or subsidies to contractors who choose to commute via sustainable transport and developing Park and Ride workforce stations.

However, no specific details of these measures are provided, nor whether, in practice, they can actually be delivered. Whilst it is acknowledged this is an outline document and certain details would be subject to change further detail should be provided as to what the Applicant's intentions are with these measures and to ensure the certainty of outcome that the Highway Authority is looking for.

- Review of existing S106 agreement – there are various obligations within the existing Gatwick Airport S106 agreement that need to be reviewed and translated into any new legal agreement. Schedule 5 obligations 5.1 to 5.7 in the current S106 agreement relate to various requirements associated with transport.
- Highway Works Bond and Commuted Sums Payment – agreement from the Applicant to enter into a Section 278 agreement and as part of this to pay a Highway Works Bond and pay any necessary Commuted Sums, as set out in the WSCC Commuted Sums Policy³¹. To be secured via the Section 278 agreement as required by article 21 of the draft DCO (AS-004). The Highway Authority would look to agree a template Section 278 agreement with the Applicant prior to determination of the DCO.
- S278 Highways & Technical Approval & Inspection Fees – agreement from the Applicant to pay the relevant highways and technical approval and inspection fees associated with the highway works to the local road network. These are generally charged as a percentage of the scheme cost. To be secured via DCO.
- Highway Structural Maintenance Contribution – a payment of the likely costs of maintaining, in a good state of repair, areas of the local road network to be used during the construction period, to help mitigate the impact of additional construction vehicles potentially damaging the condition of the highway network. To be secured via obligation.
- Waive permitted development rights for additional on-airport parking – the Applicant should waive permitted development rights for additional on-airport parking to enable the Local Planning Authority to effectively control the provision of future airport parking and to ensure that Gatwick provides sufficient but no more parking than is required to support its sustainable strategy for airport access. To be secured via obligation.
- On-airport offices and hotels provide operational parking only – On airport offices and hotels benefit from being in a highly sustainable location. The provision of additional non-operational parking (i.e. commuter and customer parking) would create unnecessary additional car-based journeys to the airport. Therefore, only disabled, maintenance and servicing parking should be provided for on-airport offices and hotels. To be secured via obligation.
 - Rail Services – train access is a key transport mode to ensure sustainable travel to and from the airport is maximised.

³¹ https://www.westsussex.gov.uk/media/12314/commutedsums_policy.pdf

However, trains are less utilised for staff and early morning flights, as train services in the early morning and late evenings are insufficient. The Applicant should consider with the relevant organisations' improvements to the coverage of rail services, including earlier morning/late evening services.

- Active Travel Routes – to maximise sustainable travel to and from the airport as far as is possible and to meet the modal split targets it is considered necessary to enhance routes to and from the airport to provide enhanced facilities to achieve meaningful changes in modal split. The Crawley Local Cycling Walking Infrastructure Plan ³²(LCWIP) has identified various routes for improvement. Those relevant to enhancing access to Gatwick airport include:
 - Route A Gatwick Airport to town centre via Manor Royal and Northgate
 - Route B Pound Hill to Manor Royal via Forge Wood
 - Route N Lowfield Heath to town centre
 - Route P Ifield to Manor Royal via Langley Green

Other active travel improvements could include the upgrade of NCN 21 through the airport to LTN 1/20 standards to improve the directness of the route and the separation of pedestrian and cycles where possible. The lift and signage to the NCN route below South Terminal could be upgraded. To be secured via DCO.

- Bus Priority Measures – no consideration appears to have been given to the need for bus priority measures as part of the Project, to ensure that the airport benefits from a high-quality bus public transport provision. The Applicant should undertake further engagement with bus and coach operators and consider the need and potential benefits of bus priority measures to provide time savings for bus services to and from the airport, in order to increase the attractiveness of using such services. To be secured via DCO and as part of the Surface Access Commitments.
- Bus Service Provision – the improvements offered by the Applicant in relation to bus and coach service enhancements and set out within the Surface Access Commitments (APP-090) are noted. However, the Highway Authority would look for the Applicant to undertake further engagement with local bus and coach operators and ensure the routes proposed are deliverable and to assess whether there are any other viable routes to ensure bus and coach travel to and from the airport is a viable option. To be secured via DCO.

17.93 As stated earlier in this section, the Highway Authority are still reviewing the latest strategic transport modelling work submitted by the Applicant to address the comments made by the ExA in their Procedural Matters letter (PD-006) on 24th Oct 2023. Upon reviewing this modelling work, further mitigation works may be required by the Highway Authority and, if they are, they will be reported at Deadline 2, 26th March 2024.

³² [Crawley LCWIP.pdf](#)

18 Socio-economics and Local Economy

Summary

- 18.1 The Authorities consider the economic impact in terms of job creation arising from the Project to be significantly overstated in both the construction and operational phases. Whilst the Authorities acknowledge the ability of the project to generate jobs, overall, these benefits have been overestimated and it is also questionable whether these jobs can be accessed by the Authorities' residents.
- 18.2 The Applicant has not fully considered the constraints that the project will place on the existing workforce, such as labour supply shortage in certain sectors such as construction. In addition, the Applicant has not given consideration to the large pipeline developments and infrastructure schemes across the area which will create significant competition for construction workers. The Authorities encourage the Applicant to undertake an assessment of potential effects on employment at a local level, as currently this has only been undertaken using an aggregated approach at the LSA, FEMA, LMA and Six Authorities Level.
- 18.3 The Authorities consider the impact on housing supply, particularly with regards to temporary accommodation (in the construction phase) and affordable housing (in the operational phase) to be significant (negative). The Applicant has not reflected existing housing market challenges in their assessment and as such, further work is needed to determine the full extent of the Project's impact. The Applicant should also explore the potential to deliver additional temporary accommodation during the construction phase to mitigate against the surge in demand.
- 18.4 The Authorities consider that the Project will increase the need for affordable housing as a result of a greater number of lower-income workers needed at the airport during the operational phase. Crawley is already unable to meet its affordable housing need in the absence of the Project, and the Authorities disagree with the Applicant's assessment that there are unlikely to be impacts on affordable housing beyond what is already planned for. The Authorities consider that mitigation is required, in the form of funding from the Applicant, to help meet increased demand for affordable housing.
- 18.5 The Authorities consider the impact on employment and skills resulting from the project during the construction and operational phases to be significantly overstated. The Applicant must identify how they will support local people to access skilled employment and create skills-building and career opportunities.
- 18.6 With regards to business displacement and impact on business activities, the impact is considered to be negative owing to potential for noise and

increased traffic flows during construction, particularly in the LSA, however the effects will be short-term and moderate. The programme and sequence of works should be used to mitigate and offset any issues resulting from the Project.

- 18.7 The Authorities consider there to be a lack of detail from the Applicant with regards to off-airport employment land requirements arising from the Project. This was understood to be set out in the Applicant's Airport-Related Employment Land Study (ARELS), but that work does not appear to form part of the DCO submission, and is not discussed within Environmental Statement Chapter 17 or its Appendices.

Policy Context

National Policy Statements

Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England (2018)

- 18.8 The Airports NPS provides the primary basis for decision making on development consent applications for a Northwest Runway at Heathrow Airport. However, it is relevant in respect of applications for new runway capacity and other airport infrastructure in London and the South East of England.
- 18.9 Paragraph 4.4 states that when *'considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the Examining Authority and Secretary of State will take into account [its] potential benefits, including the facilitation of economic development (including job creation) and environmental improvement and any long term or wider benefits'*.
- 18.10 Paragraph 4.5 states that *'environmental, safety, social and economic benefits and adverse impacts should be considered at national, regional and local levels'*.
- 18.11 Paragraph 4.70 states that *'construction and the use of airport infrastructure has the potential to affect people's health, wellbeing and quality of life'* through, for example, *'traffic, noise, vibration, air quality and emissions'*.
- 18.12 Paragraph 4.73 states *'the applicant should identify measures to avoid, reduce or compensate for adverse health impacts as appropriate'*.

National Policy Statement for National Networks (NPSNN) (December 2014)

- 18.13 The Government supports the delivery of national networks that meet the country's long-term needs, supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. The NPSNN para 2.1 recognises that national road and rail networks connecting international gateways *"play a significant part in*

supporting economic growth, as well as existing economic activity and productivity and in facilitating passenger, business and leisure journeys across the country". Paragraph 2.13 states that the Strategic Road Network provides critical links, including to airports and "drives prosperity by supporting new and existing development, encouraging trade and attracting investment". Para 2.16 states that; "Traffic congestion constrains the economy and impacts negatively on the quality of life by: Constraining existing economic activity as well as economic growth, by increasing costs to businesses, damaging their competitiveness and making it harder for them to access export markets." Whilst government has moved away from predict and provide on the strategic road network, enhancements to the existing network to tackle specific issues are supported where they increase capacity and result in improved performance and resilience. The NPS sets out the general principles of assessment. Paragraph 4.5 sets out the requirements for a business case using the Treasury Green Book principles. As part of the Transport business case an economic case will be required which considers the economic, environmental and social impacts of a development.

National Planning Policy

18.14 The National Planning Policy Framework (NPPF) (December 2023) Chapter 6, Building a strong, competitive economy, sets out that significant weight should be placed on the need to support economic growth and productivity and planning decisions should help create the conditions in which businesses can invest, expand and adapt.

Local Plan Policy

18.15 The relevant Development Plan to the scheme is the Crawley Borough Local Plan 2015 – 2030 which was adopted in December 2015. Local Plan policies relevant to the socio-economic impact of the proposed scheme include:

- Policy SD1: Presumption in Favour of Sustainable Development - The Council will favour development which improves the economic, social and environmental conditions of Crawley and the wider Gatwick Diamond sub-region. Development should provide for the social and economic needs of Crawley's current and future population.
- Policy EC1: Sustainable Economic Growth – Recognises the key sub-regional employment function that Crawley provides within the Gatwick Diamond and Coast to Capital LEP areas. The policy recognises that new employment land will need to be identified, and the council will ensure that all suitable opportunities within the borough are explored to enable existing and new businesses to grow and prosper.
- Policy EC2: Economic Growth in Main Employment Areas - Proposals for employment generating development in Main Employment Areas will be supported where they contribute to the specific characteristics

of the main employment area and overall economic function of the town.

- Policy EC3: Manor Royal – Recognises Manor Royal as the principal business location for Crawley, supporting business and business-supporting development in this location. Requires all development at Manor Royal to contribute positively to the overall setting and environment of the Main Employment Area.
- Policy EC4: Employment Development and Residential Amenity - Where residential development is proposed in or adjacent to Main Employment Areas, the main concern is to ensure the economic function of the area is not constrained. Proposals for the development, redevelopment or change of use of sites for employment use next to residential areas will be permitted providing there is no adverse harm to local amenity.
- Policy H1: Housing Provision - The council will positively consider proposals for the provision of housing to meet local housing needs, taking a pro-active approach to identifying suitable sites for housing development. The Local Plan makes provision for the development of a minimum of 5,100 net dwellings in the borough in the period 2015 to 2030. This results in an unmet need for approximately 5,000 dwellings, and the council will work closely with its neighbours, particularly those within the Northern West Sussex Housing Market Area, to meet this need in sustainable locations.
- Policy H3: Future Housing Mix - All housing development should provide a mix of dwelling types and sizes to address the nature of local housing needs and market demand.
- Policy H4: Affordable and Low Cost Housing - The policy position on Affordable and Low Cost Housing is 40% for all residential developments, except where a case for viability is made and agreed by the Council.
- Policy H6: Houses in Multiple Occupation - Proposals for the development and change of use of an existing property to a House in Multiple Occupation will normally be permitted subject to its location, cumulative impact and the meeting of its operational needs.
- Policy GAT1: Development of the Airport with a Single Runway - The council will support the development of facilities which contribute to the safe and efficient operation of the airport as a single runway, two-terminal airport of up to 45 million passengers per annum, provided that the proposed use is not incompatible with the potential expansion of the airport to accommodate the construction of an additional runway.
- Policy GAT2: Safeguarded Land - The Plan identifies land to be safeguarded from development where this would be incompatible with airport and runway expansion.

- Policy GAT4: Employment Uses at Gatwick - Permission for the loss of airport-related office floorspace within the airport boundary will only be permitted if it can be demonstrated that it will not have a detrimental effect on the long term ability of the airport to meet the floorspace need necessary to meet the operational needs of the airport as it expands.

18.16 Following formal examination hearings, the Crawley Borough Local Plan 2023-2040, Main Modifications Consultation draft, February 2024 was published for consultation from 12 February to 25 March. The following policies, which are afforded substantial strong weight unless otherwise indicated, are relevant to the socio-economic impact of the proposed scheme:

- Strategic Policy SD1: Presumption in Favour of Sustainable Development - Development will be supported where it meets a range of objectives, such as complementing Crawley's character as a compact town within a countryside setting and supporting the social and economic needs of Crawley's current and future population.
- Strategic Policy SD2: Enabling Healthy Lifestyles and Wellbeing - New development must be designed to support healthy lifestyles and address identified health and wellbeing needs in Crawley. This includes providing opportunities for high quality open space, play and recreation.
- Strategic Policy EC1: Sustainable Economic Growth - Encourages sustainable economic growth by supporting the retention and intensification of the existing main employment areas for employment uses and through the identification of new employment land to meet future economic needs. Main Modification clarifies minimum employment floorspace/land requirement, and overarching policy objectives remain unchanged – substantial strong weight should be applied to the policy.
- Policy EC2: Economic Growth in Main Employment Areas - Gatwick Airport is identified as one of several a Main Employment Areas in Crawley, which are a focus for sustainable economic growth. Development that involves a net loss of employment land or floorspace in the area will only be permitted if it results in wider social, environmental or economic benefit that clearly outweighs the loss, and there would be no adverse impact on the economic function of the employment area, nor that of Crawley more widely. Main Modifications provide clarity for policy application – substantial strong weight should be applied to the policy.
- Policy EC3: Manor Royal - Development that is compatible with the area's business-led economic function will be permitted where it involves office, research and development, light industry, general industry and storage or distribution. All development should contribute

positively to the overall setting and environment of Manor Royal in accordance with the Manor Royal Design Guide SPD.

- Strategic Policy EC4: Strategic Employment Location - Land east of Balcombe Road and south of the M23 spur, referred to as Gatwick Green, is allocated for the comprehensive development of an industrial-led Strategic Employment Location. Main Modifications clarify minimum employment floorspace/land requirement, and clarify specific Development Management matters. Overarching policy objectives remain unchanged and substantial strong weight should be applied to the policy.
- Policy EC5: Employment and Skills Development - Major developments will be required to contribute to meeting objectives set out in the most up-to-date Crawley Employment and Skills Programme, including through the preparation of a site-specific Employment & Skills Plan (to be agreed by the council prior to commencement of development) and the making of a proportionate financial contribution towards employment and skills initiatives in Crawley (or measures in lieu of this where it can be clearly demonstrated that greater employment and skills benefits would be delivered). Main Modification clarifies approach to policy flexibility and is made to supporting Reasoned Justification, not the policy itself – substantial strong weight should be applied to the policy.
- Policy EC6: High Quality Office Provision – Supports development that adds to the supply and variety of high-quality Grade A office space in Crawley, including refurbishment and improvement of existing space. Removes the sequential test (main town centre uses) requirement where offices are proposed in the Main Employment Areas.
- Policy EC7: Hotel and Visitor Accommodation - Hotel and visitor accommodation is directed to the Town Centre or Gatwick Airport, and the sequential test (main town centre uses) will not apply for the latter. Within the Gatwick Airport boundary, it will be necessary to demonstrate that development will not have a detrimental impact on the long-term ability of the airport to meet operational land and floorspace requirements as it grows. Car parking related to on-airport hotel development must meet the requirements of Policy GAT3.
- Policy EC11: Employment Development and Amenity Sensitive Uses - The relationship between employment and amenity sensitive uses, such as residential uses, must be carefully managed to minimise conflict. Residential development within Main Employment Areas, except the Town Centre, will not be supported.
- Strategic Policy GAT1: Development of the Airport with a Single Runway - Within the airport boundary as set out on the Local Plan Map, the council will support the development of facilities which contribute to the sustainable growth of Gatwick Airport as a single runway, two terminal airport, subject to policy criteria. The policy is clear that its criteria will be taken into account by the council in

responding to a DCO for sustainable growth at Gatwick Airport, to be met by the airport operator and secured through appropriate requirements or S106 obligations. Main Modification clarifies approach to Biodiversity Net Gain, and policy objectives remain unchanged – substantial strong weight should be applied to the policy.

- Policy GAT2: Safeguarded Land - The Local Plan Map identifies land that is safeguarded from development which would be incompatible with expansion of the airport to accommodate the construction of an additional wide spaced runway (if required by national policy) together with a commensurate increase in facilities that contribute to the safe and efficient operation of the expanded airport. Detail is provided on the types of small-scale development that will normally be considered acceptable within the safeguarded area. Main Modification clarifies approach with regards to small-scale development within safeguarded area, and does not impact upon principle of safeguarding nor its geographic extent – substantial strong weight should be applied to the policy.
- Policy GAT4: Employment Uses at Gatwick - Loss of airport-related employment floorspace, or development of new non-airport related floorspace, within the airport boundary will be permitted where it can be demonstrated that development will not have a detrimental impact on the long-term ability of the airport to meet the floorspace need necessary to meet the operational needs of the airport as it grows.
- Strategic Policy H1: Housing Provision - The Council will consider proposals for housing to meet local needs where development is consistent with other policies and proposals in the Plan, and the principle of sustainable development. The identified housing need over the Plan period 2023-2040 is 12,835 and the housing supply is 5,330 because of the constraints of the borough. Main Modification updates housing numbers in response to an amended Local Plan starting date, and this element of the policy should be afforded significant strong weight. Substantial strong weight may be applied to all other aspects of the policy.
- Policy H3: Housing Typologies – Policy H3 and its sub-policies support Local Plan Policy H1 in seeking to maximise delivery of new dwellings to meet as far as possible Crawley’s emerging housing needs.
- Strategic Policy H4: Future Housing Mix – Requires all housing development to provide a mix of dwelling types and sizes to address the nature of local housing needs and market demand. The appropriate mix of house types and sizes for each site will depend upon site size and characteristics, viability of the scheme, and should be informed by the evidence established in the Strategic Housing Market Assessment and its updates.
- Strategic Policy H5: Affordable Housing - The policy position on Affordable Housing is 40% for all residential developments, (25% in the town centre due to viability) except where a case for viability is

made and agreed by the Council. This policy is subject to Main Modifications relating to the approach taken in respect to Use Class C2 developments, and to the calculation of commuted sums for town centre developments. The Modifications are considered to have significant strong weight, and all other aspects of the policy including the headline requirements have substantial strong weight.

- Policy H6: Build to Rent - Build to Rent housing will be supported where it is in conformity with the other policies and requirements of the Local Plan
- Policy H9: Houses in Multiple Occupation - Proposals for the development and change of use of an existing property to a House in Multiple Occupation will normally be permitted subject to its location, cumulative impact and the meeting of its operational needs.

18.17 Outside of the Local Plan, in December 2021, Crawley Borough Council published its '**One Town' Economic Recovery Plan**. The document is an overarching, strategic plan for all existing delivery programmes including Crawley Growth Programme and the Town Centre Regeneration Programme. The Crawley Economic Recovery Plan presents a vision for the borough's future socio-economic prosperity, supporting continued economic recovery through a series of flagship interventions. This includes the unlocking of sufficient suitable land for new sites to provide for all of Crawley's employment growth sectors and help boost jobs for residents, increasing economic resilience, supporting a green economy, skills development and town centre renewal.

18.18 Also relevant is the **Crawley Employment and Skills Programme 2019 to 2024** (and subsequent updates). This document identifies the creation of apprenticeships, training and job opportunities for local residents as a key objective. A key priority is helping local people and businesses benefit from the opportunities arising from development. This can be supported through the funding of skills, training and employment programmes and local employment and training obligations. Crawley Borough Council is committed to ensuring that growth is inclusive and sustainable for all. The aim is to support local residents, young and old, into employment and raise the skills of the workforce so that they can access the new jobs being created across the borough.

Mid Sussex District Council

Mid Sussex District Plan (2018)

18.19 The Mid Sussex District Plan (2018) includes policies relating to socio economic development in Mid Sussex. These policies are set out below:

- DP1 – Sustainable Economic Development - The policy aims to promote a place which is attractive to a range of businesses, where local enterprise thrives and there are opportunities for local people to live and work within their communities.

- DP2 – Town Centre Development - The policy aims to create and maintain town and village centres which are vibrant, attractive and successful, meeting the needs of the community. Development should support a strong and diverse rural economy in villages and the countryside.
- DP3 – Village and Neighbourhood Centre Development - The policy aims to create and maintain town and village centres which are vibrant, attractive and successful, meeting the needs of the community.
- DP4 – Housing - The policy refers to the Objectively Assessed Housing Need (OAN) and uses the Mid Sussex Housing and Economic Development Needs Assessment as a means to determine dwellings needed over the plan period.
- DP14 – Sustainable rural development and the rural economy - Development should promote a place which is attractive to a full range of businesses and where local enterprise thrives, to provide opportunities for people to live and work in their communities, reducing the need for commuting. Development should support a strong, diverse local economy in villages and the countryside, and support/enhance Mid Sussex as a visitor destination.
- DP19 – Sustainable Tourism - Tourism related development in the countryside should support sustainable growth of the rural economy and maintain/enhance the quality of the rural landscape and character of the district.
- DP24 – Leisure and Cultural Facilities and Activities - The policy seeks to ensure that development is accompanied by necessary infrastructure in the right place at the right time to support development and sustainable communities. This is to include sustainable transport networks, cultural and sporting facilities and informal leisure space.
- DP25 – Community Facilities and Local Services - The policy lists a range of community facilities and local services, such as healthcare facilities, libraries, public houses, local shops and community centres which development should be accompanied by.
- DP30 – Housing Mix - The policy states that the amount and type of housing should represent the needs of all sectors in the community.
- DP31 – Affordable Housing - The Council will seek a minimum of 30% on-site affordable housing for all residential developments of 11 dwellings or more.

Site Allocations Development Plan Document (2022)

18.20 In addition to the District Plan the Site Allocations Development Plan Document (2022) contains the following relevant policies:

- SA1 – Sustainable Economic Development Additional site allocations - The strategy for economic development in Mid Sussex supports the delivery of 543 jobs per year. The policy states 17.45 hectares of land have been identified for additional employment land allocation at: Burgess Hill, Copthorne, Bolney and Pease Pottage.
- SA10 – Housing The policy states the minimum housing requirement for the Mid Sussex District is at least 16,390 dwellings between 2014 and 2031.
- SA11 – Additional Housing Allocations - An additional 1,704 dwellings are to be delivered under the additional housing site allocations.
- SA34 – Existing Employment Sites - Proposals which would result in the loss of Existing Employment Sites will not be supported, unless they clearly demonstrate that the site/premises are no longer needed or viable for employment use. Proposals for intensification within the boundary of Existing Employment Sites will be supported provided it is in accordance with other development plan and national policies. Proposals for redevelopment of employment use within the boundary of an Existing Employment Site will be supported if it does not result in a net loss of employment floorspace.

Sustainable Economy Strategy (2022) – Mid Sussex District Council

18.21 The vision of the strategy is to create a vibrant district that is attractive, resilient and innovative, that balances social well-being, environmental protection and sustainable economic growth. The Council will partner with public, private and voluntary sectors to achieve the ambitions set out in the Strategy. A key theme is to protect and create better employment which seeks to develop skills, improve pathways to work and reduce pay inequality. To reduce pay inequality, the Council will adopt a Social Value and Sustainability Charter to ensure there is commitment to support economic, environmental and social improvements from Council suppliers and contractors. An additional objective is to improve the economic and social wellbeing of residents, which will be achieved through initiatives to reduce barriers and help people into work, developing a network of community hubs and promoting workplace and community wellbeing programmes.

Horsham District Council

18.22 The Horsham District Planning Framework (2015) is the main planning document for the District. The following policies are considered relevant to the assessment of the socio-economic impacts of the Project:

- Strategic Policy 1: Sustainable Development reflects the presumption in favour of sustainable development in the NPPF and seeks to improve the economic, social and environmental conditions in the District.
- Strategic Policy 2: Strategic Development lays out a number of spatial policy points which are of relevance:
 - “7. Guide development form and provide access to strategic green space and recreational opportunities in and around the built-up urban areas.”
 - “9. Identify existing sites of important employment use, and to safeguard their function through flexible policies and designation of Key Employment Areas, together with supporting the rural economy, to allow people the opportunity to work close to where they live”
 - “10. Provide for the varied housing needs of the community in terms of tenure, affordability, care and other support needs and the specific temporary and permanent needs of the Gypsy and Travellers and Travelling Showpeople”, and
 - “11. Support the provision of rural housing which contributes towards the provision of affordable housing where there is a demonstrable need.”
- Strategic Policy 3: Development Hierarchy explains how development will be prioritised across the district’s settlements and within built up area boundaries. It classifies Horsham Town as the main settlement and categories small towns and villages depending on their characteristics and function, directing development to the settlements towards the top of the hierarchy. Strategic Policy 5: Horsham Town reiterates Horsham Town’s role as “the primary economic and cultural centre in the District, and the wider economic area”
- Strategic Policy 7: Economic Growth deals with the provision of employment floorspace and seeks to address an identified shortfall by supporting high quality employment development. It allocates land for a business park in the Land North of Horsham “Mowbray” site allocation and also supports a range of sizes and types of businesses and working patterns through support for smaller units as well as Key Employment Areas. It also aims to increase the value of the tourism economy and to encourage higher education and training facilities.
- Policy 9: Employment Development seeks to preserve the overall floorspace in existing Key Employment Areas unless it can be demonstrated the proposal supports the integrity and function of the Key Employment Area”. Policy 10: Rural Economic Development supports development where it generates “local employment

opportunities and economic, social and environmental benefits for local communities.”

- Policy 11: Tourism and Cultural Facilities supports development which reinforces local distinctiveness and improves existing facilities, ensures facilities are available in towns and villages and do not result in the loss of a cultural resource.
- Strategic Policies 12: Vitality and Viability of Existing Retail Centres and 13: Town Centre Uses set out a hierarchy of retail centres across the district and means by which development should support their viability and vitality, recognising the changing role of centres as focuses for community life.
- Strategic Policy 15: Housing Provision states that the HDPF aims to deliver 16,000 homes in the plan period and identifies three strategic sites, including Land North of Horsham. Strategic Policy 16 presents further detail about how these homes will meet specific needs, across tenures, sizes and types of home. It sets an affordable housing mix of 35% on sites delivering over 15 dwellings and 20% on sites of between 5 and 14 dwellings. Policy 19: Park Homes and Residential Caravan Sites supports proposals for park homes and residential caravan sites to meet local need and for permanent accommodation.
- Strategic Policies SD1-11: Site Allocation Policies set site allocation principles, including minimising the impact on the local transport network, providing additional social infrastructure such as recreation facilities and healthcare and high quality development which reflects community need.
- Policy 43: Community Facilities, Leisure and Recreation supports the provision of new community facilities which meet an identified community need and accord with the Development Hierarchy outlined in Strategic Policy 3. Loss of facilities will require equal or enhanced facilities nearby.

West Sussex County Council

18.23 **West Sussex County Council – Our Council Plan (2021-2025)**: The Plan sets out the ambitions for what the Council would like to achieve for communities in West Sussex by 2025. This includes a sustainable and prosperous economy and to make the best use of local resources. The plan seeks to implement a social value framework which will ensure procurement processes are accessible to local providers to maximise the use of local suppliers in supply chains, securing added economic, social, and environmental benefits for residents. This is to include jobs and opportunities for local people, and access to education, training, and support.

18.24 **West Sussex County Council Economy Plan (2020-2024)** – the plan sets out the County Council’s priorities for the economy, and the role it will play. The Plan has a set of priority themes, and sets out related

headline actions to achieve associated goals. These include: `Protect and Revive Crawley and the Gatwick Diamond Economy`, including seeking a strong recovery for Gatwick following the pandemic, and working with partners to secure infrastructure investment for strategic transport, digital infrastructure, and town centres to support economy priorities; `enable employment and skills recovery and resilience`, including focussing on higher value, knowledge economy sectors and skills, responding to business needs and growth opportunities; and `protect and revive tourism and the visitor economy` through supporting businesses and working across Sussex and with regional partners. Development proposals will need to protect the high-quality natural environment, the character and distinctiveness of the county, and maintain the attractiveness to businesses and employees.

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
18.1a	Employment opportunities for local people in West Sussex	C/O	Positive	Provision of local jobs through ensuring the Applicant employs local people and uses local supply chains. The mechanism for enabling this would be the ESBS.	<p>Airports NPS at Paragraph 4.4 states that the Examining Authority and Secretary of State will take into account the potential benefits, including the facilitation of economic development (including job creation).</p> <p>WSCC 'Our Council Plan 2021-2025' notes that a social value framework will be implemented to secure jobs and opportunities for local people through procurement and contract management within the county.</p> <p>WSCC 'Economy Plan 2020-2024' aims to enable employment, skills recovery and resilience' through working with partners to maximise opportunities for people in West Sussex.</p> <p>mCBLP Policy EC5 Employment and Skills Development</p>

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					Mid Sussex Sustainable Economic Strategy
18.1b	Construction and operational phase worker requirements on the labour market in West Sussex.	C/O	Negative	The Applicant should revisit their approach to determining labour supply constraints during construction and operation.	<p>Airports NPS at paragraph 5.329 states that in addition to providing economic growth and employment opportunities, airport expansion will also have negative impacts on local communities.</p> <p>Airports NPS at paragraph 4.73 states that the Applicant should identify measures to avoid/reduce or compensate for adverse impacts as appropriate.</p> <p>mCBLP Policy GAT1 outlines criteria that will be taken into account by the Council in responding to a DCO where growth at Gatwick Airport is proposed. The Council expects the policy to be met by the airport operator through appropriate requirements or S106 obligations.</p>

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					<p>Mid Sussex Sustainable Economic Strategy</p> <p>Mid Sussex District Plan (2018) seeks opportunities for local people to live and work in their local communities</p>
18.1c	Adverse impact on housing supply - temporary accommodation during construction phase and affordable housing for operational phase	C/O	Negative	<p>Provision of more temporary accommodation for construction workers to reduce impact on the local community.</p> <p>Mitigation through funding grants to assist in ensuring more affordable units are available to low-income workers at the airport during the operational phase.</p>	<p>Airports NPS at Paragraph 5.329 states that in addition to providing economic growth and employment opportunities, airport expansion will also have negative impacts on local communities.</p> <p>Policy H1 of the Crawley Borough Local Plan 2015-2030 states that the Council will support proposals which meet local housing needs.</p> <p>mCBLP Policies H1 (Housing Provision); H4 (Future Housing Mix); H5 (Affordable Housing); H6 (Build to Rent); H9 (Houses in Multiple Occupation).</p>

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					MSDC DP DP4 sets out housing requirement, DP30 (Housing Mix, DP31 (Affordable Housing)
18.1d	Minor adverse effects of resident and business disruption e.g. noise and vibration, traffic and transport.	C	Negative	Reduce through control measures such as timed/phased construction periods, particularly avoiding night time construction and ensuring a traffic plan is in place to mitigate impact on the existing road networks.	<p>Airports NPS at Paragraph 4.7 states that construction and the use of airport infrastructure has the potential to affect people’s health, wellbeing and quality of life through traffic, noise, vibration, air quality and emissions, for example.</p> <p>Paragraph 4.73 states ‘the applicant should identify measures to avoid, reduce or compensate for these impacts as appropriate’.</p> <p>Paragraph 5.47 states ‘the Government wants to strike a fair balance between the negative impacts of noise (on health, amenity, quality of life and productivity) and the positive impacts of flights. Major airports are legally required to develop strategic noise maps and</p>

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					Noise Action Plans based on those maps on a five yearly basis’.
18.1e	Minor adverse impact on business activities displacement	C	Negative	Mitigate through a detailed programme and sequence of works to offset impact to business activities and relocation/displacement issues.	<p>Airports NPS at paragraph 5.329 states that in addition to providing economic growth and employment opportunities, airport expansion will also have negative impacts on local communities.</p> <p>Policy CNP14 of the Copthorne Neighbourhood Plan 2021 states that development that would result in the loss of employment floorspace/land would not be permitted unless it demonstrates that on-going use of the premises/land for employment purposes is no longer viable.</p> <p>The Mid Sussex Site Allocations Development Plan 2022 states that proposals which would result in the loss of Existing Employment Sites will not</p>

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					<p>be supported, unless they clearly demonstrate that the site/premises are no longer needed or viable for employment use.</p> <p>Policies EC1, EC2, EC3 of the Crawley Borough Local Plan 2024-2040</p> <p>mCBLP Policies EC1, EC2, EC3, EC4</p>
18.1f	Employment and Skills	C/O	Negative	Mitigate through ensuring the Applicant includes appropriate mitigation in the ESBS to guarantee proportionate financial contribution towards employment and skills and business initiatives.	<p>Airports NPS paragraph 4.4 states that when considering any proposed development, the Examining Authority and Secretary of State will take into account the potential benefits, including the facilitation of economic development (including job creation), and any long term or wider benefits alongside the potential adverse impacts.</p> <p>The WSCC 'Economy Plan 2020-2024' Theme 5 aims to enable employment, skills recovery and resilience' through working with</p>

Table 18.1 : Summary of Impacts – Socio-economics and Local Economy					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
					<p>partners to maximise opportunities for people in West Sussex.</p> <p>The WSCC 'Our Council Plan 2021-2025' notes that a social value framework will be implemented to secure jobs and opportunities for local people through procurement and contract management within the county.</p> <p>mCBLP Policy EC5 Employment and Skills Development</p> <p>Mid Sussex Sustainable Economic Strategy</p>
18.1g	Impact on property prices due to construction work disruption and increased number flights	C/O	Negative	The Applicant should undertake this assessment.	

Construction Phase – impacts

Positive

18.25 There should be positive impacts, but the Authorities are not persuaded as to how these will be captured locally. The Authorities also consider that any positive economic impacts must be considered alongside related impacts, some of which are negative or uncertain as discussed in the following sections.

Employment

- 18.26 The Authorities acknowledge the Project will create new jobs during the construction phase. Chapter 17: Socio-economics of the Environmental Statement (APP-042) estimates that direct jobs will be generated, along with jobs within the supply chain. Job numbers vary depending on construction period; during the initial construction period (2024-2029) a peak of 1350 workers is expected; in the first full year of opening, the peak construction workforce between 2030-2032 is estimated to be around 1320; in the interim assessment year (2032), the peak construction workforce between 2033-38 is estimated to be around 450 workers.
- 18.27 Overall, however, the benefits of employment generation on the project have been overestimated.
- 18.28 While the Authorities agree that direct on-site jobs, as well as indirect and induced jobs, will be generated by the Project, it is noted that the construction jobs calculation appears to be based on a “maximum” scenario and is therefore not applying a worst-case.
- 18.29 Additionally, many of the jobs generated by the Project during construction will be lower-paid, low-value jobs which will not make a significant net additional contribution to the economies that are local to the Project.
- 18.30 Furthermore, the magnitude criteria (job ranges) used to assess the impact of construction employment appears to be arbitrary and to simplistic given it is applied across all study areas. This does not seem to be correct given the differences in population size across each of the study areas. It is also not clear how the job ranges within the magnitude criteria were defined. For the assessment, the Applicant has used the total construction employment number in each phase and applied this against the magnitude criteria for each study area which is not correct. The Applicant has calculated the number of construction workers and from which study area they reside. These numbers should be used to compare against the magnitude criteria when undertaking the assessment.

- 18.31 On this basis, the Authorities question the ES's findings that construction employment will represent a significant beneficial effect for the first two construction scenarios (2024-29, 2030-32) across all study areas, particularly the Functional Economic Market Area (FEMA) and Labour Market Area (LMA).
- 18.32 Whilst the Applicant has undertaken assessments at the regional level, assessments at the local authority level are needed for those authorities based in the FEMA, to inform potential effects on employment at a local level. It is disappointing, given previous discussions around the need to consider effects at a local authority level, that the Applicant has decided to only take an aggregated approach for the assessment, considering the LSA, FEMA, LMA and the Six Authority Area level. The Applicant has not provided a reasonable explanation for why an assessment at local authority level has not been undertaken. Whilst the findings which are based on groups of local authorities are important, they are not appropriate substitutes for analysis at the local authority level.
- 18.33 Appendix 17.8.1 (APP-198) provides an Employment, Skills and Business Strategy (ESBS) which states how the Applicant would maximise economic benefits generated by the Project for communities and businesses to make best use of Gatwick's existing runways and infrastructure. Paragraph 1.1.7 describes that the activation of the ESBS would be set out within an implementation plan which would describe in detail how the Applicant would collaborate with partners to deliver the ESBS. The ESBS Implementation Plan will be secured via the S106 agreement. Whilst it is welcomed that an outline strategy has been provided, it is very high level. There are no details of specific initiatives tailored to local need, nor targets, nor arrangements for deliverables and monitoring. It is understood this will feature in an Implementation Plan which will be secured as part of the S106, but it is unclear why these details cannot be provided to a greater extent in the ESBS. Further discussion of the ESBS is provided within the 'Required Mitigation' within this section of the LIR.

Population and community cohesion

- 18.34 Chapter 17: Socio-economics of the Environmental Statement (APP-024) considers the extent to which incoming construction workers could swell and interact with the existing population and affect community cohesion. The Applicant concludes that effects are negligible which would appear to be fair.

Neutral

- 18.35 No neutral socio-economic effects during the construction phase have been identified.

Negative

Labour market (availability of construction labour)

- 18.36 Chapter 17: Socio-economics of the Environmental Statement (APP-024) finds there to be no significant adverse effect on the labour market, for all three construction phase scenarios assessed, and some significant beneficial effects. The Authorities disagree with the findings of this assessment.
- 18.37 It is disappointing, given previous discussions around the need to assess effects at a local authority level, that the Applicant has only decided to take an aggregated approach for the assessment, considering the LSA, FEMA, LMA and the Six Authorities Area level. Whilst these findings are important, they are not appropriate substitutes for impact analysis at the local authority level especially given shortfalls in labour supply in some of the local areas.
- 18.38 No assessment of effects in relation to construction employment has been undertaken at a local authority level. This is a concern, as the Authorities understand there to be skills shortages across the construction sector in Sussex, including for basic construction skills and more specialist sectors within the supply chain, as informed by Future Skills Sussex in its Local Skills Improvement Plan (2023)³³.
- 18.39 Future Skills Sussex have undertaken research and gathered data to inform the Local Skill Improvement Plans and identify priorities for change. As part of this work, they undertook extensive research into the Construction Sector. This report concluded "The construction sector across the South - East is expected to grow by an annual average of 1.8% between 2023- 2027. Industrial (4.0%), private housing (3.6%) and commercial (3.0%) work are expected to see the biggest annual increases. Consequently, this means that in the South-East the construction industry needs to increase current recruitment by 3,560 new workers each year to deliver the expected work between the start of 2023 and end of 2027" (Sussex Local Skills Improvement Plan, Construction Sector Deep Dive, Executive Summary, February 2024 Future Skills Sussex). This report further evidences constraints on the construction labour market in Sussex.
- 18.40 Particular needs are identified in the following sectors, several of which are relevant to the DCO:
- Revit/AutoCAD
 - Civil engineering
 - Site management
 - Plumbing, heating and ventilation

³³ Local Skills Improvement Plans (LSIPs) were introduced in the Skills for Jobs White Paper in January 2021 and now form an integral part of the Skills and Post-16 Education Act 2022. The Sussex LSIP incorporates the local authority area of Brighton and Hove, East Sussex and West Sussex. The Sussex Chamber of Commerce and its Board have overarching responsibility for the development and delivery of Future Skills Sussex LSIP.

- Electrical – domestic and commercial
- Water neutrality
- Quality and compliance
- New technologies / digital skills
- Sustainability / Net Zero / Carbon efficiency
- Procurement and tender writing
- Carpentry, joinery, and brick
- Plant fitters
- Groundworkers

18.41 The Future Skills Sussex document goes on to identify specific challenges facing the local areas. Of particular relevance to the construction phase of the DCO are the following:

- Recruitment is a challenge across the sector, with skills shortages meaning agency staff are travelling a long way to get to site – this is a particular concern given the lack of local analysis undertaken by the Applicant, and also regarding impacts of non-home based (NHB) workers (discussed at paragraph 18.52-18.59).
- Local subcontractors are more likely to be used on the larger projects – again this is a concern as it would suggest that contractors will be drawn to the DCO, potentially at the expense of development being delivered elsewhere.
- Capacity on some relevant courses is a key issue in Sussex, particularly for apprentices and in some cases, courses are not available at all.

18.42 The report also refers to major long term development projects in the south-east that will also draw on construction labour including the Lower Thames Crossing, M23 Junction 10 improvements and the East-West Rail project. In addition, the report also references the large-scale house building that is taking place, including 3,500 homes at Brookleigh, Burgess Hill and 2,750 homes at North Horsham and West of Ifield alongside associated infrastructure such as new roads.

18.43 The sensitivity for the Local Study Area (LSA) is assessed as medium, which given the small size of the construction labour market would appear to be incorrect; it should be graded as being of high sensitivity. The Applicant advises that the Project would not require a workforce that specialises in housing development and implies that housing development activity should not be impacted significantly. However, there is a related requirement for a workforce to deliver infrastructure associated with housing development which has not been considered by the Applicant.

18.44 The Applicant also suggests that the pool of people (230) claiming Job Seekers Allowance could help to fulfil the need for construction jobs at Gatwick, given 115 of these people have a relevant skill for construction related activity. However, these skills can be out to use within the full range of both housing and infrastructure development so it is unlikely that all of these 115 would be available to work on the Project.

- 18.45 The assessment uses ONS model-based estimates of unemployment for the year July to June 2021, with rates held at this level to 2047. This dataset significantly overstates unemployment (and therefore labour market capacity) in comparison to the latest data from the 2021 Census. For example, the average unemployment rate across the 17 local authorities based on the ONS model-based estimates of unemployment is 4.2%, compared to 2.6% average based on 2021 Census. At 2.6% unemployment, the labour market capacity is significantly constrained in the study area, which would limit the ability of local people to access employment opportunities, potentially displacing people from local jobs elsewhere. The analysis should be revisited with the benefit of the latest and most reliable information, which is now the 2021 Census.
- 18.46 Paragraph 5.2.14 of Appendix 17.9.3 of the ES states that the Project is only expected to be a determinant in whether there is labour shortfall or surplus in the Housing Market Area (HMA) for one area (Croydon and East Surrey). The basis for this conclusion does not appear robust, as based on the analysis, the Project is shown to exacerbate labour shortfall issues across multiple areas. Furthermore, if underlying inputs in the model are changed to reflect the fact that the labour market is already more constrained, as has been modelled, it is likely shortfalls would be greater across many of the areas. On this basis, justification needs to be provided for the basis of the assessment given the analysis and limitations identified. Given the limitations in its approach, the Applicant should provide justification for the basis of the assessment which concludes that the Project is only expected to be a determinant in whether there is labour shortfall or surplus in the HMA for one area.
- 18.47 Paragraphs 4.1.2-4.1.4 describes the “primary scenario” split of where construction workers will be based, with 80% identified as Home Based (HB) and 20% as Non Home Based (NHB) drawing on Quod’s Gravity Model. The model however does not appear to have taken account of current labour supply constraints within the local authorities located in the FEMA. Given the constraints in the labour supply of these local authorities, an assumption of 80% HB construction workers does not appear to be realistic and certainly not a worst-case approach. Given this, the Authorities believe the Applicant should revisit their approach.
- 18.48 The Authorities note that the Employment, Skills and Business Strategy (ESBS) seeks to mitigate impacts associated with the DCO, including its construction phase. Specific concerns held by the Authorities in relation to the ESBS in its current form with regards to the construction phase include:
- The Applicant proposes that measurable outcomes will feature in an Implementation Plan, but not in the ESBS itself. GAL’s Mitigations Route Map document (Environmental Statement App 5.2.3, APP-078) suggests that the ESBS document is the “control document” for Employment & Labour market impacts, with these control documents meant to be the mechanisms to set out how the required mitigations have been translated into clear, measurable and enforceable controls. The ESBS in its current form does not appear to do this.

- Timescales for the Implementation Plan(s). Whilst there are several factors which influence timelines, the Applicant's response has lacked detail, advising that once the ESBS is agreed, Implementation Plans will then be developed. The Authorities' view is that Implementation Plans should be in place earlier, especially if they are going to be the documents which have details of locally specific initiatives and activities associated with the construction phase. Construction recruitment will need to start before the Project commences, so the Implementation Plan needs to be in place ahead of commencement.
- The ESBS does not appear to provide a baseline analysis of existing education/training providers. This is critical to identifying what additional provision may be required, including in relation to the construction skills shortage, and where there may be opportunities to build on the existing offer of these providers. The ESBS needs to identify if/where there are gaps in the existing provision. This needs to be compared with the Applicant's needs arising from the Project to show how the ESBS will provide the necessary support to enhance existing provision.
- The Authorities run initiatives (for example Employ Crawley) with a focus on getting local residents either into work or, if they are already employed, into higher paid and higher skilled employment. We would encourage the Applicant, through its ESBS, to work alongside existing initiatives where these are already in place.

Housing supply (temporary accommodation)

18.49 Chapter 17: Socio-economics of the Environmental Statement (APP-024) paragraphs 17.9.16-17.9.18 conclude that there are no significant effects on temporary accommodation for any of the Study Areas. However, the Authorities believe there are potentially significant effects on temporary accommodation at the LMA and FEMA level, and have concerns with the Applicant's assessment methodology in relation to both the magnitude and sensitivity criteria. In Table 17.13.1, the Applicant has stated that the sensitivity of temporary accommodation in both the LSA and FEMA is low across all scenarios but they have not provided any rationale for this grading. The sensitivity criteria presented in Table 17.6.6 does not appear to include any for temporary accommodation. In addition, Table 17.4.5 presents magnitude criteria for construction impacts. The magnitude criteria for temporary accommodation (percentage ranges) appears to be arbitrary and too simplistic given the same percentages are applied across both the LSA and FEMA with no rationale. It is also not clear how these ranges within the magnitude criteria were defined.

18.50 The research on vacant bed spaces is out of date and requires updating to take account of the current situation in the local areas. Section 6.3 Appendix 17.9.3 Assessment of Population and Housing Effects (APP-201) provides details of allocation of NHB workers by local authority and the supply of private rental sector beds. Table 6-5 presents private rented sector (PRS) bed supply for 2021 by local authority but it is not clear how these figures have been derived given Paragraph 3.5.2 advised the data

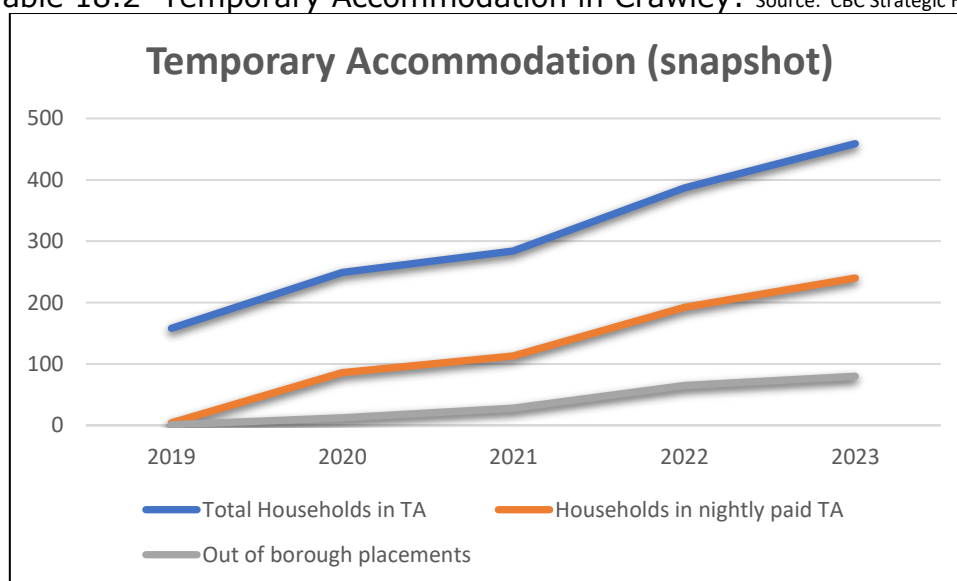
on bedrooms was gathered from the 2011 Census. The Authorities are also unclear as to how the Applicant has arrived at the final calculation in Table 6.2.2 – ‘estimated number of vacant private rental properties’ – applying the methodology as explained beneath Table 6.2.2 provides an estimated NWS HMA total of 513 properties, compared with the 533 arrived at by the Applicant.

- 18.51 In addition, whilst the figures present PRS bed supply, they do not advise on the actual availability of accommodation. In the light of a declining supply of rental accommodation and feedback from local authorities on limited availability this would seem to be a significant omission. The Applicant should be considering the availability of accommodation drawing this from an up-to-date position on the supply of rental accommodation. Liaison with local authorities in the FEMA could inform a more up-to-date understanding of available private rented accommodation. Updated analysis should also take account of other cumulative schemes that will need construction workers that may require temporary accommodation.
- 18.52 In paragraph 6.2.3-6.2.4 of the ES Appendix 17.9.3 Assessment of Population and Housing Effects (APP-201), the Applicant provides an analysis of vacant properties and implies that bringing these back into use will help meet the demand generated by non-home based workers. There is no analysis of why these properties are vacant, the length of time they have been vacant and the barriers bringing them back into use. A more robust assessment of the private rental market is required.
- 18.53 In Crawley, GAL’s estimation of 119 available properties to rent, derived from on Lichfield’s interpretation of the 2011 Census data, is considered to be high, as there is in reality limited stock available on the market and the increasing demand for private rented accommodation is leading to rent increases, (8% increase in the past year). Short-term lets have a much higher churn, so it would be expected that these properties would therefore return back to the market on a more regular basis, and this may create the illusion of availability. However, currently there is large demand for each rental unit when it becomes available, and the construction workforce for the Project would add to the weight of the demand.
- 18.54 The percentage of private renting in Crawley increased from 14.5% in 2011 to 19.8% in 2021, and some landlords are selling up due to the lifting of Covid restrictions on evictions and Government proposals to change security of tenure. Based on regular quarterly checks on data from Rightmove, availability for private rented sector (PRS) properties in Crawley varies from between 35 to 86 properties, most with 1-year minimum rentals. Average PRS rent is currently £1,373 per month (over £480 more than the monthly Local Housing Allowance). The increasing lack of affordability in the private rented sector is putting a lot of pressure on social housing stock as the housing register is increasingly becoming the only discharge option for homeless households. There were over 11 applicants per property made available through the housing register in the eight months to February 2024. This leads to more households having to be housed in temporary accommodation. These households are having to

wait longer for an offer via the housing register, slowing turnover within the temporary accommodation portfolio, which in turn is leading to increasing usage and cost of nightly paid private temporary accommodation, such as B&Bs and hotels, with some households occupying this type of accommodation for weeks or months. Despite the Council delivering over 1600 affordable units in past 10 years, supply is below demand because the constrained nature of the borough means it cannot meet its overall housing needs, with water neutrality requirements slowing down development still further despite the Council retrofitting thousands of council homes. There is also a limited supply of larger properties which could be used as HMOs in the borough. Further information on the Housing Register in Crawley is set out in Appendix L.

18.55 CBC has insufficient temporary accommodation within its own portfolio and cannot source sufficient short term private accommodation within the borough, resulting in some families having to be housed in accommodation which does not meet their needs, possibly out of the borough and for long periods of time. Of greatest significance is the impact on Emergency Temporary Accommodation, which has effectively trebled over the past four-years, and as a result the Council has had to resort to using expensive nightly paid accommodation in B&B's and hotels. The supply of these rooms is also constrained because several of the borough's hotels are still being used by the Home Office for immigration accommodation. There are currently about 450 people/families in temporary accommodation, with almost 250 of these being housed in nightly paid accommodation, and almost 100 of these having to be placed out of borough due to the limited availability of nightly paid accommodation within the borough. Costs of temporary accommodation to CBC have risen 12-fold since 2018, to £5.7million 2023-24 and now account for one pound in every three of the Council's budget. This unprecedented growth in the demand for temporary accommodation, and the indications of this trajectory continuing along this trend is the main reason for CBC declaring a Housing Emergency on 21 February 2024.

Table 18.2 Temporary Accommodation in Crawley: Source: CBC Strategic Housing



- 18.56 Any increased demand and competition from NHB construction workers for the Project seeking short term private rented accommodation in Crawley, or the surrounding areas will increase the demand pressure still further, increasing rents and making it even more difficult and costly for CBC to meet the need for those they have a duty to house, and forcing more households out of the borough. The Council therefore remains very concerned that the Applicant's assessment of housing need during the construction period has taken a narrow view and does not fully consider what is a significant demand and therefore competition for the limited available accommodation in HMOs, B&Bs etc and costs are already increasing. This reinforces the view that the Applicant should undertake a more granular assessment at the local authority area level relating to the availability of temporary accommodation for construction workers.
- 18.57 In Horsham District, the increasing lack of affordability in the private rented sector (the median average rent per calendar month in Horsham is 7% above the South East average according to the [Northern West Sussex Strategic Housing Market Assessment 2019](#)) is putting pressure on social housing stock as the housing register increasingly becomes the only discharge option for homeless households. This leads to those households in temporary accommodation waiting longer for an offer via the housing register, slowing turnover within the temporary accommodation portfolio, which leads to an increasing usage of nightly paid private temporary accommodation, such as B&Bs and hotels, and the associated increased cost. Some households occupy this accommodation for weeks or months. HDC has insufficient temporary accommodation within its own portfolio and is finding it increasingly difficult to source sufficient short term private accommodation within the District, so some families must be housed out of the District. There are currently 110 units of self-contained temporary accommodation, with 38 households occupying bed and breakfast accommodation as a direct result of a lack of available accommodation in the District.
- 18.58 HDC is a non-stock owning authority, and increasing build cost inflation and interest rates, water neutrality constraints, and a more powerful Social Housing Regulator means some Registered Providers are delivering fewer units meaning fewer affordable homes are available overall. While NHB construction workers employed on the Project would not themselves qualify for the housing register in Horsham, nor would they (due to their lack of a local connection) impact HDC directly in terms of the provision it must make for homeless person, existing affordability issues, coupled with the potential for increased demand on the PRS is likely to place further pressure on Horsham's housing register as residents are priced out of the PRS, and further costs on the local authority who rely on B&Bs and hotels.
- 18.59 Mid Sussex District shares a Housing Market Area with Crawley and Horsham and like Crawley and Horsham, Mid Sussex is also experiencing pressure on the private rented sector. There are a number of reasons for this:
- There is a relatively small amount of private rented accommodation available in Mid Sussex, 18% of total housing stock compared to 20%

in the South East, (Source Strategic Housing Market Assessment, MSDC, 2021)

- Monthly rents in Mid Sussex are expensive. Median rent for all properties is 6% above the South East average. (Source Strategic Housing Market Assessment, MSDC, 2021)
- Across the rental market demand outstrips supply. Rents have increased by an average of 12%, and by 19% for studio accommodation during the period 2014/15 - 2019/20 (Source Strategic Housing Market, MSDC, 2021)
- Lack of accommodation that can be used by MSDC to house those in emergency/temporary housing need within Mid Sussex, with Mid Sussex often needing to use facilities outside of the District in Horley (Reigate and Banstead), for example.
- Additional pressure from the resettlement programme WSCC operate.

Disruption

Disruption of business activities

18.60 Chapter 17: Socio-economics of the Environmental Statement (APP-024) explains that businesses could be indirectly disrupted primarily due to increased traffic flows and effects from noise and vibration due to construction activity. Based on the findings of Chapter 12: Traffic and Transport and Chapter 14: Noise and Vibration, the Applicant found that there was potential for minor adverse (not significant) effects within the Project site boundary and the LSA (though negligible effects in the FEMA, LMA and Six Authorities Area). These impacts should be reduced through control measures such as timed/phased construction periods and appropriate measures in the Construction Traffic Management Plan (APP-085).

18.61 The noise modelling by the Applicant indicated that there was potential for adverse noise impacts on sensitive receptors defined by the noise assessment as residential properties, early years childcare facilities (i.e. nurseries) and places of worship that are in close proximity to the Project. As such it is assessed that short-term, moderate adverse impacts would occur in the LSA. These impacts should be reduced through control measures such as timed/phased construction periods and appropriate measures in the Construction Traffic Management Plan (APP-085).

Business Displacement

18.62 Chapter 17: Socio-economics of the Environmental Statement (APP-024) finds a minor adverse effect on business displacement within the DCO Limits, for the first construction assessment period only. Most of the reconfigurations and alterations arising the Project would not have a material impact on existing businesses within the Project site boundary. There is a detailed programme and a specific sequence of works that would offset any relocation/displacement issues.

Operational phase – impacts

Positive

18.63 There should be significant positive impacts, but the Authorities are not persuaded as to how these will be captured locally. The Authorities also consider that any positive economic impacts must be considered alongside related impacts, some of which are negative or uncertain as discussed in the following sections.

Employment

18.64 Chapter 17: Socio-economics of the Environmental Statement (APP-024) quantifies the operational phase employment benefits of the Project. The chapter reports significant beneficial effects associated with both direct on-site jobs, and indirect, induced and catalytic employment. The Authorities believe that these benefits have been overstated in the local area particularly given the concerns about the reliability of the Applicant's growth forecasts. If these forecasts are not robust then neither will be the assessments derived from them. The Authorities are also concerned about the methodology used to assess catalytic employment and GVA benefits of the Project (as set out in Appendix F Needs Case Review, paragraphs 61-71.) Additionally, many of the jobs generated by the Project during operation will be low skilled, low value jobs which will not make a significant net additional contribution to the economies that are local to the Project.

18.65 Increasing the number of jobs at the airport should result in benefits to the local economy and the local population. The Authorities note that many of the new jobs at the airport will be lower-paid, and it is important that all opportunities are exploited to raise local aspiration and achievement locally, and to increase social mobility. Local skills gaps could limit the scope for local residents to take up some job opportunities, meaning that higher-paid jobs will go to those in-commuting from further away. The Applicant has developed an outline Employment, Skills and Business Strategy (ESBS) for the Project, the purpose of which is to support local people with securing these opportunities but as explained earlier in this chapter the Strategy lacks specific detail. We note there is no reference to social mobility within the ES documentation and it is important that steps are taken to maximise opportunities for those people living closest to the airport.

Community cohesion

18.66 The Applicant finds the effects of the Project on community cohesion are negligible. The Authorities agree with this conclusion.

Neutral

18.67 No neutral effects during the operational phase have been identified.

Negative

Employment and Skills

18.68 Employment and skills is a key issue for the Local Authorities.

18.69 Crawley is well established as the leading economic destination in the Coast to Capital LEP and Gatwick Diamond areas, but there remains a long-standing disparity between the average lower level of qualifications and income achieved by people who live in Crawley, compared with those of the in-commuting workforce. This is reflected by Crawley's position close to the bottom of the social mobility index (published 2017), where the borough ranks 304th out of 324 local authorities. Addressing the skills gap is vital in enabling local people to access higher skilled employment, creating the right conditions for career opportunities within the borough. It is important that Crawley offers the right skills profile to cater for the needs of current and future employers. Modifications Crawley Borough Local Plan Policy EC5 requires major developments in Crawley to help meet initiatives identified in the Crawley Employment and Skills Programme, which has a key objective of creating apprenticeships, training and job opportunities through new development. Further, the policy requires a proportionate financial contribution (or measures in lieu of a financial contribution) towards Employ Crawley, which runs employment and skills initiatives to support those sections of the Crawley workforce who face challenges in accessing employment. CBC will be seeking to secure appropriate mitigations through the Applicant's ESBS, consistent with the approach of Local Plan Policy EC5.

18.70 Mid Sussex has a highly educated workforce, with 52.6% (aged 16 -64) possessing a level 4+ qualification, with median earnings for residents working full time higher than the average for West Sussex. However, this hides the pockets of deprivation in parts of the District. An objective of the Sustainable Economy Strategy for Mid Sussex is to promote initiatives which reduce barriers and help individuals into work. Mid Sussex will be seeking to ensure appropriate mitigations through the Applicants ESBS, consistent with the sustainable Economy Strategy (2022).

18.71 Horsham District has a higher percentage of residents in higher and intermediate occupations, with educational achievement above average. It does, however, have a large number of residents who commute outside the District for work, with a decline in the number of start-up businesses. One of the aims of the Council Plan 2023-2027 is to encourage upskilling and supporting initiatives to help people find employment in the District. The Council is seeking to support local employers to train and upskill staff, such as the Horsham District Business Training Programme. Like Crawley Borough and Mid Sussex District, HDC is keen to ensure that an emerging ESBS supports the wider economic aims of the Council.

18.72 With regards to the approach of the ESBS in relation to the operational phase, the Authorities concerns include the following:

- We reiterate our concerns raised in relation to the construction phase regarding the need for a baseline analysis within the ESBS which comprehensively describes the socio-economic/demographic situation. It does not assess the availability and capacity of existing education/training providers. This is critical to identifying where there are gaps in existing provision and what additional provision may be required, including where there may be opportunities to build on the existing offer of providers. This needs to be compared with the Applicant's needs arising from Project to show how the ESBS will provide the necessary support to enhance the existing provision.
- We would also reiterate concerns regarding the timescales for the Implementation Plan(s) associated with the ESBS, and the need for the first implementation plan to be in place prior to commencement of development.
- We need to understand how the ESBS would differentiate between the provision offered through the Project and the provision offered in a 'Business As Usual' scenario. This needs to be clear in the documentation. The Applicant has advised that the Project would build on existing provision but there needs to be clarity on the extent and how it will do this. Currently the ESBS does not do this and it is not clear how this would be covered going forward. There is a need for the ESBS to be clear about which measures are associated with the Airport's current operation, and which elements represent the 'added value' that will come about as a result of the Project.
- The Authorities run initiatives (for example Employ Crawley) with a focus on getting local residents either into work or, if they are already employed, into higher paid and higher skilled employment. We would encourage the Applicant, through its ESBS, to work alongside existing initiatives where these are already in place.
- Identification of a requirement for training remains unclear in terms of numbers and skills. How will needs be addressed in practice? There is no indication on how opportunities for local people will be maximised.
- Locally specific outcomes - It would be useful if KPIs can report on performance at a local authority level so local communities and elected members can see the value in the output from the ESBS Implementation at the local level. There is a need to set clear and measurable targets for engagement around apprenticeships, work experience and training schemes. Similarly, set a target for the % people employed in specific sectors.
- A proactive approach towards supporting local business (of all sizes) to understand what they need to do to get on to GAL's supplier lists. This is mentioned in brief in the ESBS, but it needs to be something more than just registering on the GAL procurement portal. The Authorities suggest a Social Value Charter which promotes 'local' first. Anything around procurement should not just be about ensuring value for money/cost i.e. it may be more expensive to source locally in some cases but it will likely be more sustainable and benefit the local economy. How will the Applicant ensure, through the procurement process, that SMEs are included

in contract supply chains? Is there scope for the Applicant's procurement framework to include a weighting that supports local businesses?

- There is need for a 'Pathway Plan' for recruitment to help anyone who secures a job at Gatwick to clearly see a pathway to progression at Gatwick, and understand what they need to do in order to progress.

Labour market (availability of operational labour)

18.73 Chapter 17 (APP-042) finds there to be beneficial labour market effects during the operational phase, including significant beneficial effects for the LSA and the FEMA study areas in the 2032, 2038 and 2047 operational assessment scenarios. On the contrary, the new jobs created at Gatwick could lead to labour shortages in the local authority areas in the FEMA. This is likely to be more prevalent in some of the low-paid sectors (where Gatwick in the past has tended to pay higher wages than local businesses) and could mean local businesses and services including, for example, the care sector facing an increased struggle to find staff. This is evidenced in the West Sussex Economy Snapshot (July 2023)³⁴ produced by West Sussex County Council. This publication includes data sourced from ONS in relation to job postings. The latest data released in February 2023 show that there were 9,275 postings for healthcare profession jobs between October 2022 – December 2022 making it the most posted profession. This indicates that there is either a high number of jobs available in this sector, which is unlikely given the proportion of business in this sector locally, or that there is difficulty filling roles when advertised.

18.74 In addition, the Applicant has not considered existing skill levels within the local area to fulfil some of the more specialised roles during the operational phase. For example, according to the 2021 Census, Crawley has a significantly lower percentage (27.5%) of its population with NVQ Level Four & above qualifications than compared with the UK average (34%). This may result in jobs being taken by those who commute from outside Sussex to fulfil the labour requirement.

18.75 For this reason, the Applicant should undertake local impact analysis as part of the socio-economic assessment to understand the potential labour shortages existing in local authority areas in the FEMA.

Housing supply

18.76 Chapter 17 (APP-042) concludes that there are no significant adverse effects on the supply of housing in the HMAs relevant to the Study Areas during operation. However, there needs to be a more granular assessment of housing delivery in the area in particular considering the unmet affordable housing need to inform the assessment of the population and housing.

³⁴ [West Sussex Economy Snapshot - July 2023 \(Not suitable for assistive technologies\)](#)

18.77 A key issue is whether sufficient affordable housing is likely to come forward from the housing trajectories to meet additional needs of lower skilled/income employees who are likely to live close to the airport rather than commute. Paragraph 7.5.1 of ES Appendix 19.9.3, Assessment of Population and Housing Effects (APP-201) recognises that the project is likely to generate demand for affordable rented housing which is greater than the number of homes in the existing stock (14-17% compared to current 13%). If this exercise were done at an individual local authority level however, the figures would be very different and the true impacts at local authority level are being hidden. Secondly, the assessment goes on to conclude that despite the demand from the project being skewed towards affordable housing, there are unlikely to be impacts on affordable housing beyond what is emerging or planned for. However, analysis of completions by local authority (Table 7.4.1) has demonstrated that the delivery frequently does not meet the need, and therefore a shortfall is likely. On that basis, the conclusion that the Project is unlikely to have any impact on affordable housing demand beyond what is planned for does not appear well founded.

18.78 In Crawley, the borough's affordable housing need is 739 dwellings per annum (dpa), of which 563dpa are needed as rented affordable housing and 176dpa are needed as affordable home ownership properties. The total affordable housing need for Crawley is almost as high as its overall housing need of 755 dwellings per annum (12,835 over the plan period 2023-2040), of which only 42% (5,330) can be met within the borough. Whilst there is a 40% requirement for affordable housing for developments outside the town centre, viability constraints mean that only a 25% requirement in the town centre is viable. Much of the borough's future housing provision will be located in the town centre, which means only 17% of Crawley's identified affordable housing can be met in the borough. As set out at paragraph 18.54 above, the implications of water neutrality have further impacted on the delivery of new affordable housing. Crawley is therefore already unable to meet its affordable housing needs, even in the absence of the Project. In this context, lower paid roles at the airport are more likely to be filled by staff who live locally – commuting information at paragraph 17.6.40 of the Environmental Statement (APP-042) suggests that as of 2011, 39.3% of workers at the airport travelled from within the Local Study Area. The Applicant acknowledges at paragraph 17.9.68 of the Environmental Statement (APP-042) that potential tenure demands associated with the Project are likely to be slightly skewed more towards affordable housing than the existing employment base. Given that Crawley is unable to meet its existing affordable housing need, it follows that the Project will exacerbate what is an existing unmet need for affordable housing within Crawley Borough.

18.79 In Mid Sussex, the latest Strategic Housing Market Assessment (2021) indicates a demand for 470 homes per year. This compares to delivery of 369, 349, 245, 214, homes delivered each year between 22/23 - 2019/20 (in reverse chronological order) The District Plan (2018) requires 30% affordable housing, but viability constraints mean that a higher

percentage is not deliverable. The result is that the affordable housing need is not being met in full in Mid Sussex.

18.80 HDC's most recent Strategic Housing Market Assessment (2019) has calculated the District's affordable housing need at 503 dwellings per annum, or 52% of its standard methodology housing need. Current Local Plan policies require between 20% and 35% affordable housing to be delivered on schemes of between 5 & 14 units & 15 units or more respectively. According to the Council's Authority Monitoring Report 2021/22, affordable housing completions between 2016/17 and 2021/22 have ranged from 80 to 319, demonstrating a significant unmet affordable housing need. As with Mid Sussex and Crawley, this is as a result of viability constraints on site.

Employment Land Supply

18.81 The Authorities note that the Applicant has previously indicated at Topic Working Groups that the Project will generate catalytic (off-airport) employment land requirements of between 15 and 18 hectares, understood to be set out in the Applicant's Airport-Related Employment Land Study (ARELS). However, there does not appear to be confirmation within Environmental Statement Chapter 17 or its supporting Appendices, of the off-airport employment land requirement that would arise as a result of the Project. Through its emerging Local Plan, Crawley is planning to meet its employment land requirement for the period 2023-2040 in full, principally through the allocation of new Strategic Employment Land at Gatwick Green in the north east of the borough. The Authorities note that whilst this allocation includes flexibility to provide a quantum of employment floorspace beyond the minimum need identified in the Plan, Local Plan employment land requirements do not factor in catalytic employment land needs associated with the Project. GAL is assuming that such needs can be evenly distributed between the Gatwick Local Authorities, but experience suggests that much of this demand will wish to locate as close as possible to the airport, and this is likely to increase the demand for employment land in Crawley and neighbouring areas. CBC would again reiterate that its ability to identify new employment land is heavily constrained by the ongoing requirement to safeguard land for a possible future southern runway at Gatwick, hence the Council's view that safeguarding should be lifted if the DCO is made. This would enable Crawley to benefit economically from the Project.

Property prices

18.82 An assessment of impacts on property values due to increased frequencies of flights has been scoped out of the assessment, despite PINS indicating in its scoping opinion that the "*ES should assess any likely significant effects associated with the Proposed Development in relation to this matter*" (PINS ID 4.10.3). The Authorities agree that an assessment of Project impacts on property prices is required. The Applicant has acknowledged there will be adverse impacts on residential housing around the airport. Their rationale for scoping this item out of the assessment is that affected properties would be compensated as part of the Land

Compensation Act. This is not a sufficient reason to scope this item out from the socio-economic assessment mainly as the payment of compensation to some affected properties is unlikely to capture the true extent of impact on property prices. In addition to the directly affected properties, there is also likely to be an impact on property prices caused by negative perception of the Project. At a minimum, the Applicant should undertake a qualitative assessment which robustly assesses the Project's impacts on property prices.

- 18.83 The Applicant states that any noise impacts of the Project would not be over areas currently unaffected by noise from Gatwick, however they fail to consider the impact on properties currently affected by noise from Gatwick which will suffer increased noise issues. This is discussed further in Chapter 14, Noise and Vibration. Additionally, there is likely to be a perception that the Project will cause disturbance and annoyance which is likely to impact negatively on property prices. The Applicant accepts that the Project could have an effect on property prices. The Applicant should, therefore, undertake an assessment of impact on property prices.

Visitor Economy and Tourism

- 18.84 The Local Economic Impact Assessment [APP- 200](#), paragraph 1.1.7 explains how the Project would generate additional economic benefits through tourists spending on hospitality and attractions. The Authorities are concerned that, due to the connectivity of the airport with London, this benefit will not be captured in the West Sussex area. The Authorities are keen to secure effective mitigation that secures tourism related benefits in West Sussex.

Disruption to business activities

- 18.85 Under all operational scenarios (2029, 2032, 2038 and 2047), Chapter 17 finds that adverse (albeit not significant) effects are likely to occur in terms of business disruption within the Project site boundary and the LSA. This reflects findings from Chapter 12: Traffic and Transport (e.g. relating to increased journey times) as well as from Chapter 14: Noise and Vibration. No displacement is anticipated during this period.

Disruption of resident activities

- 18.86 Chapter 17 finds adverse effects (albeit not significant) for the LSA and FEMA in the 2029 operational scenarios, and for the LSA in the 2032 operational scenario. This is based on the synthesis of findings from Chapter 12: Traffic and Transport (which indicates the Project could result in for example severance, driver delays and pedestrian and cyclist delays affecting residents), and Chapter 14: Noise and Vibration.

Required Mitigation

- 18.87 **Employment, Skills and Business Strategy (ESBS):** Chapter 17 of the ES (Table 17.8.1 Mitigation and Enhancement Measures) refers to the ESBS (contained within Appendix 17.8.1), which sets out how the

Applicant would seek to maximise economic benefits for communities and businesses generated by the Project to make best use of Gatwick's existing runways and infrastructure. The six activity themes are set out in the ESBS, which covers both the construction and operational stage, are:

- Inspire and Motivate;
- Construction;
- Employment and Skills (non-construction);
- Adding Value through Procurement;
- Innovation; and
- Regional Promotion.

18.88 Chapter 17: Socio-economics of the Environmental Statement (APP-024) categorises the ESBS as Enhancement rather than Mitigation. However, the Authorities consider that the ESBS is required as essential mitigation, given the concerns expressed regarding potential adverse labour market effects, and barriers to local people accessing employment, including higher-paid employment.

18.89 ES Appendix 17.8.1: Employment, Skills and Business Strategy (APP-198) at paragraph 1.1.7 describes that the activation of the ESBS would be set out within an Implementation Plan which would describe in detail how the Applicant would collaborate with partners to deliver the ESBS. The ESBS Implementation Plan will be secured via the S106 agreement. Whilst it is welcomed that an outline strategy has been provided, it is very high level. paragraph 4.2.2 explains that the Implementation Plan will set out activities to be delivered; the partners/stakeholders involved; governance, monitoring and reporting arrangements; and milestones, targets and outcomes. It is unclear why none of the above can be shared as part of the ESBS to demonstrate that this important mitigation strategy will be both sustainable and leave a legacy. The Applicant should also provide a route map in the ESBS which explains the process from ESBS to Implementation Plan.

18.90 ES Appendix 17.8.1: Employment, Skills and Business Strategy (APP-198) paragraph 1.1.11 and Tables 5.1-5.6 provide details of options identified in the ESBS that could feature in the Implementation Plan. Whilst acknowledging that these are defined as "options" and will be firmed up as part of the Implementation Plan and S106 process, it is noted that these options are not necessarily directly aligned with local specific issues, need and opportunity. There is no information to identify how the strategy will address the current issues affecting the different Local Authorities. This makes it difficult to conclude whether the options set out within the ESBS are appropriate. The Applicant should provide more detail within the ESBS on potential tailored initiatives that would specifically align with and support the communities within the local authorities in close proximity to the airport. Paragraph 1.1.8 states that the Applicant would ensure that there is effective reach into communities facing multiple barriers to gaining and sustaining work; it would be helpful if the Applicant specifically explained the process for how they would go about this in relation to the specific localities in question.

18.91 The Applicant should also provide details on timescales, performance, financial management, monitoring and reporting in the ESBS which can be developed further as part of an Implementation Plan. The ESBS also provides no explanation on whether it would differentiate between the provision and outputs offered through the DCO vs. provision and outputs offered in a Business as Usual scenario.

18.92 The Authorities have identified a number of potential 'Asks' relating to maximising local employment, skills and supply chain opportunities and minimising any adverse effects of airport expansion. These 'Asks' include: contributions towards workforce development strategy initiatives; initiatives to help residents back into the labour market; promotion of inward investment and development of the visitor economy. It is acknowledged that some of these 'Asks' may be covered within the ESBS, either as DCO Requirements or S106 commitments, but until the Implementation Plan has been developed/made available, this cannot be confirmed. There is more work to be done by the Applicant and stakeholders to confirm the preferred activities to be included within the Implementation Plan.

18.93 Further, mCBLP Policy EC5 requires a proportionate financial contribution (or measures in lieu of a financial contribution) towards Employ Crawley, which runs employment and skills initiatives to support those sections of the Crawley workforce who face challenges in accessing employment. CBC will be seeking to secure appropriate mitigations through the Applicant's ESBS, consistent with the approach of Local Plan Policy EC5.

18.94 The ESBS therefore needs to include details as to:

- Local procurement strategy
- How engagement with relevant local authorities will be assured e.g. through the Steering Group
- Apprenticeship scheme
- Scheme for students
- Outreach programme: links to existing outreach programmes as well as GAL's own
- Baseline, baseline analysis and baseline review
- Measures that go above and beyond existing provision associated with current operations

18.95 The Authorities would welcome further discussion on this. Detail is required as to how the £14m figure proposed by the Applicant has been arrived at, and confirmation as to how this relates to the ESBS. The Implementation Plan will need to be in place prior to construction and will likely need to be updated more frequently than every 5 years. It is also not possible for the Authorities to be satisfied that the ESBS can be implemented without seeing a draft Implementation Plan and having this annexed to the S106 Agreement.

18.96 Other specific required mitigations are relevant to the socio-economic effects of the Project:

18.97 **Establishment of a Housing Fund** (s106):

- **Short Term Private Rented Housing:** to mitigate the impacts of Non-Home Based construction workers on the short term private rented sector, and the consequential impact on the Authorities' Temporary Accommodation costs and responsibilities, by stimulating additional supply in the private rented sector, or alternatively direct provision by GAL of accommodation for Non-Home Based temporary construction workers.
- **Affordable Housing:** to subsidise affordable housing provision for permanent staff in lower paid jobs during the operation of the Project. The Fund could enable the Authorities to secure additional affordable housing units through grants to improve viability and enable a higher proportion of new development to be affordable units.

18.98 **The Gatwick Community Fund:** The Authorities welcome GAL's proposals to expand the existing Gatwick Community Trust, and other discretionary funding projects, into the Gatwick Community Fund to support schemes, measures and projects which promote the economic, social or environmental wellbeing of local communities and enhance their quality of life and provide compensation for the combined environmental effects (both perceived and real) of the Project. The Authorities agree that the creation of the Gatwick Community Fund will be imperative to mitigate the intangible and residual impacts of the Project, and the continued operation of the Airport, which would not be mitigated through other obligations and requirements. The Authorities highlight that the ANPS (para 5.247) supports the Airports Commission's recommendation for an additional component of ongoing community compensation proportionate to environmental impacts, and expects the size of the community compensation fund will be proportionate to the environmental harm caused by expansion of the airport. For the Heathrow expansion, the Airports Commission considered that a sum of £50 million per annum could be an appropriate amount, distributing £750million over a 15 year period to local communities.

18.99 In its Green Paper on the Future of UK Aviation; Aviation 2050, paragraph 3.71 and 3.72, the Government recognises that, in recognition of their impact on local communities and as a matter of good corporate social responsibility, a number of airports have community funds which exist to provide funding for local community projects. The Government believes all major airports should establish and maintain community funds, and invest sufficiently in these so that they are able to make a difference in the communities impacted and to raise the profile of these funds. The levels of investment should be proportionate to the growth at the airport. Community funds are complementary measures to ensure communities get a fair deal and do not substitute for noise reduction.

Luton Airport's s106 supporting its DCO application proposes a Community Fund obligation of £100,000 per annum, plus any noise and track violation payments. In addition, the Luton Airport s106 includes an additional Compensation Policies, Measures and Community First obligation which includes an annual payment of £1 per passenger for growth above 19mppa (to a maximum of 32mppa). This amounts to £13million per year once the 32mppa capacity is reached.

- 18.100 Whilst recognising the proposed funding for passenger growth has been based on the existing s106 Agreement, and is scaled up above 50mppa, paragraphs 4.6-4.16 above explain the context and limitations of the existing s106 Agreement and why, therefore, it is not an adequate basis to assess the sufficiency of funding. The Authorities do not consider that the amounts of funding in the proposed Community Fund are proportionate to the growth of the Airport, effectively a doubling from the 2023 position in the next 25 years, nor are they sufficient to make a meaningful difference in the communities impacted. The intangible and residual impacts will affect more people and to a greater extent than just a perpetuation of the current operations so a fundamental rethink on the scale of funding is required. The Authorities also consider the distribution of the Fund should better reflect the areas most impacted, including impacts related to noise contours and flight paths.
- 18.101 **Visitor Economy and Tourism:** Funding is required over an initial ten-year period (in line with the Sussex Plan for Growth) for capacity building (e.g. business development), international marketing for Sussex, and to invest in associated development activities e.g. business up-skilling to enter the MICE market. In addition, a tourism fund is required to ensure local businesses and attractions can benefit from an uplift in visitor numbers (and that it is not wholly displaced to London and other counties). Funds should be open to capital and revenue bids e.g. to increase accommodation capacity, for marketing attractions and events most likely to appeal to international visitors, and for initiatives enhancing natural capital and the natural environment.

19. Cumulative Effects

Summary

- 19.1 There is the potential for the Project, alongside other development, to have cumulative effects leading to a number of significant impacts and the view of the Authorities is that the assessment has not been robust enough to capture these impacts. This section outlines which developments should be considered, and an assessment of the likely impacts and required mitigation. This topic is considered here because it is the last of the Applicant's Environmental Statement topics (and the LIR follows the structure of the ES), but the concerns raised also apply to the remaining sections of this LIR.
- 19.2 As well as local development, future development of a third runway (R3) at London Heathrow Airport, which was recommended by the Airports Commission in July 2015 following a review of airport expansion in the south-east of England could have impacts on the transport network and on noise, air quality and health and wellbeing alongside the Project and other development with the potential to come forward.
- 19.3 The local authorities do not consider that the CEA as presented is comprehensive enough to have fully captured the potential for cumulative impacts which would increase the significance of issues already identified in previous sections, or which may not have arisen in isolation and, therefore, that insufficient mitigation has been proposed by the Applicant.
- 19.4 Mitigation required includes more locally based analysis of labour supply during the Project's construction period, assessment of the transport impacts of the construction and operation phase of the project with the construction of West of Ifield and Gatwick Green Strategic Employment sites and noise mitigation in the north of Horsham District where a number of proposed and committed developments are located.
- 19.5 The Authorities are prepared to work positively with the Applicant to ensure these can be delivered.

Policy Context

National Policy

Airports National Policy Statement

- 19.6 The Airports NPS provides the primary basis for decision making on development consent applications for a Northwest Runway at Heathrow Airport, however, it is important and relevant in respect of applications for new runway capacity and other airport infrastructure in London and the southeast of England.

- 19.7 The ANPS requires an environmental statement to outline how a proposal would interact with other development³⁵ and whether the cumulative effects might result in impacts which are unacceptable even if these impacts considered on an individual basis, or with mitigation measures, would not reach the threshold. It also directs the ExA and the SoS to take into account the Project's "potential adverse impacts (including any longer term and cumulative adverse impacts)".
- 19.8 In dealing with health, the ANPS makes reference to impacts which "may affect people simultaneously" and requires the Applicant, the Examining Authority and the Secretary of State to have regard to the cumulative impact on health.

National Networks National Planning Statement

- 19.9 The NNNPS, which is relevant in relation to the highways works, makes clear that the ExA and the SoS should have account of the Project's adverse impacts, including any longer-term and cumulative adverse impacts³⁶. It also clarifies that the consideration of cumulative impacts is a key part of the environmental assessment of a Project³⁷. It also makes clear these should be considered across both construction and operation phases of a project.

National Planning Policy

National Planning Policy Framework

- 19.10 The National Planning Policy Framework balances the presumption in favour of sustainable development with the need to consider the cumulative impacts of development. Paragraph 49 discusses refusal of planning permission where:

"a) The development proposed is so substantial, or its cumulative effect would be so significant, that to grant permission would undermine the plan-making process by predetermining decisions about the scale, location or phasing of new development that are central to an emerging plan; and

b) the emerging plan is at an advanced stage but is not yet formally part of the development plan for the area."

- 19.11 The NPPF makes specific reference to the assessment of cumulative impacts in relation to the effect on:

- the transport network (para 115)
- flood risk (para 166)

³⁵ Para 4.14

³⁶ [NNNPS Para 4.3](#)

³⁷ [NNNPS Para 4.11](#)

- pollution and the impact of living conditions and the natural environment (para 191)
- air quality (para 192)

19.12 Paragraph 115 states that severe “residual cumulative impact” is the only reason for refusing development on highways grounds. Paragraph 166 states that strategic policies should “consider cumulative impacts in, or affecting, local areas susceptible to flooding” and paragraph 191 makes clear that decisions and policies should take account of “the likely effects, including cumulative effects) of pollution on health, living conditions and the natural environment”.

19.13 Paragraph 192 states:

“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas taking into account”.

Planning Inspectorate’s Advice Notes

19.14 Planning Inspectorate’s [Advice Note 17](#) provides advice on the approach to a cumulative effect assessment for an NSIP, including the method applicants should take in order to meet the requirements of the Environmental Impact Assessment (EIA) Directive³⁸.

19.15 [Advice Note 9](#) deals with how applicants should approach EIA development where “uncertainty exists and necessary flexibility is sought”, and covers the requirement for cumulative effects assessments to not only identify and consider the “likely significant effects” but also to apply a consistent approach across the application documents.

Local Policy Context

19.16 The policies outlined in the topic sections throughout this document apply to the assessment of cumulative effects. Where the impacts of the proposal considered in isolation may be assessed as having an insignificant impact, particularly for the non-host authorities, the cumulative effects may result in more interaction with local policies than in the standalone topic assessments. Other Development Sites

19.17 The Authorities have provided the Applicant with updated planning application and Local Plan information on several occasions which has fed into the CEA. Key developments which are considered to have a particular cumulative effect, because of their scale or their proximity to the Airport, or both, are listed in the table below, with the sites closest to the Airport shown in Appendix B. Even sites some distance away will result in cumulative impacts, particularly on the strategic road network and rail services also serving the airport. There are a number of other

³⁸ EIA Directive 2014/52/EU

developments outlined in Table 19.1 which are committed either through Local Plan allocations, by virtue of having extant planning permission, or both. This table is intended to provide a summary of what the Authorities consider to be key development within the local area and to indicate to the ExA the status of that development in the Applicant’s assessment. This is not, however, intended to be an exhaustive list of development which may lead to cumulative impacts with the Project.

Table 19.1: Other development sites which may interact with the Project

Site	Status	Scale	CEA Status
West Sussex County Council			
Recycling, Recovery and Renewable Energy Facility and Ancillary Infrastructure	Allowed at appeal		Tier 1 development
Crawley Borough Council			
Crawley Borough Local Plan 2023-2040 Modifications Consultation Draft February 2024		TOTAL 5330 homes 17.93ha employment land	
Gatwick Green Strategic Employment Site	Allocated in mCBLP 2024	17.93ha minimum	Tier 3 Identified as Reasonably Foreseeable and therefore do not form part of future baseline. Added to the “with Project” scenarios.
Forge Wood	Under Construction	784 dwellings remaining	Included due to proximity to the Airport and scale
Town Centre Sites	Identified in SHLEA/mCBLP Local Plan	Various sites totalling 2,987	Included due to scale
Horsham District Council			
Kilnwood Vale	Under construction	Up to 2,500	Tier 1. Included due to falling within Ecology and Landscape ZoIs, and scale of development.
Mowbray / Land North of Horsham	Under construction	2,750 homes, 46,650m ² business park, all through school.	Tier 1. Included due to falling within Ecology ZoI and due to scale and temporal scope.

			Also included as Tier 3 development as a Strategic site allocation in the current Local Plan.
Land North of Horsham densification	Reg 19 Horsham District Local Plan draft allocation	Proposal for an additional 500 homes is included in the emerging Horsham District Local Plan	Not included
Land West of Ifield	Regulation 19 Horsham District Local Plan draft allocation	Up to 3,000 homes	Tier 2. Included due to pre-application EIA scoping opinion having been sought, nature and scale. Also within Traffic, Landscape, Ecology, Air Quality and Heritage ZoIs.
Former Novartis Site, North Horsham	Site allocation with outline permission	Up to 300 homes, flexible commercial space	Tier 1. Included due to falling with Ecology ZoI, scale and nature of development.
Land West of Southwater	Under construction	540 homes	Not included
Land Northwest of Southwater	Reg 19 Horsham District Local Plan allocation	1000 homes	Not included
Land East of Billingshurst	Reg 19 Horsham District Local Plan allocation	Up to 650 homes	Not included
Mid Sussex District Council			
Brookleigh, Burgess Hill	Under construction	3,500 homes	
Woodgate, Pease Pottage	Under construction	600 homes	
Heathy Wood, Copthorne	Under construction	503 homes	

Science and Technology Park, Burgess Hill	Development Plan allocation	23 hectare employment land allocation	
The Hub, Burgess Hill	Under construction	15ha Employment land allocation	
Brookleigh, Burgess Hill	Adopted District Plan allocation	10 ha Employment land	
Crabbet Park, Copthorne	Submission Draft District Plan allocation	2,000 homes	
West of Burgess Hill	Submission Draft District Plan allocation	1,250 homes	
Sustainable Community at Sayers Common	Submission Draft District Plan allocation	2,360 homes	

Heathrow R3

19.18 In considering any NSIP the Secretary of State should have regard to all relevant National Policy Statements. The proposed expansion at Heathrow Airport, involving construction of a third runway located to the northwest of the existing runways is supported by government policy through the [Airports National Policy Statement](#). The ANPS itself states that it will be “an important and relevant consideration in respect of applications for new runway capacity and other airport infrastructure in London and the South East of England” (para 1.12). An increase in runway capacity at either airport would increase the airport’s operational capacity and, therefore, would have impacts on the number of flights departing and landing and on the wider transport network in the south-east. There are likely to be a cumulative effects if the Project comes forward in addition to a third runway at Heathrow Airport.

Applicant’s Approach to Assessment

19.19 The Authorities have raised concerns in their Relevant Representations (RR) and Principal Areas of Disagreement Summaries (PADSS) relating to the Applicant’s approach to the CEA. Where concerns to the assessment approach remain, these are detailed here.

19.20 The Applicant requested input from the Authorities on the long- and short-list of other developments on two occasions (September 2022 and January/May 2023). At this stage the Zones of Influence (ZoI) had been confirmed and there was no opportunity to engage on how these were set. While Advice Note 17, and the local authorities themselves, acknowledge that there is an element of professional judgement required in setting the Zones of Influence, no meaningful or periodic input from the Authorities

was sought by the Applicant, nor was the rationale laid out clearly either during the pre-application engagement nor in the application documents themselves. For instance Chapter 11 of the ES [APP-036] states “The zone of influence (ZoI) for the water environment has been identified based on the spatial extent of likely effects” with no further explanation or qualification.

- 19.21 There is concern with the ZoI used to assess Noise and Vibration. The application documents state that this extends 20km from the Project, which is accurate in a east to west direction, however it stops short of the most populated area of Horsham District, and in particular misses the Mowbray / Land North of Horsham development. This is a Tier 1 development which has outline permission for 2,750 homes as well as other sensitive receptors such as schools. Given that CEA best practice should deal with worst case scenarios, the expansion of this ZoI to include more populous areas would have been appropriate.
- 19.22 The Authorities also question some assumptions the Applicant has made in paragraph 14.11.15 of the Noise and Vibration CEA section of [APP-036] around noise mitigation being delivered on site on the basis that the local planning authority would have a duty to enforce this requirement. This fails to take account of anything but the worst noise impacts which would be mitigated through site layout or noise insulation. This requirement should not negate the comprehensive assessment of the potential for noise to interact with other development and result in significant impacts on receptors within an extended ZoI.
- 19.23 The Applicant summarises its approach to the assessment of Heathrow R3 in paragraphs 20.7.2 – 20.7.6 of Chapter 20 [APP-045] and states that uncertainty about the likelihood of the expansion at Heathrow coming forward and extended possible timeframes has led to the decision to exclude Heathrow R3 from the core list of “other development”. The Authorities are concerned that failure to take account of compounded effects of the Project, R3 and other development likely to take place on transport, air quality and noise, as well as wider implications for flight paths and the use of tactical offload routes such as WIZAD to avoid congestion could result in impacts on West Sussex beyond those which have been anticipated and mitigated by the Project.
- 19.24 The Applicant recognised that there are three significant proposed developments in the vicinity of Gatwick, two of which are in West Sussex (West of Ifield and Gatwick Green). These developments were identified as ‘reasonably foreseeable’ and not included in the future baselines. Cumulative traffic and transport impacts were considered but not for the construction phases. The Authorities consider that, given the close proximity of these schemes to the Airport, further consideration should have been given to potential overlaps in construction timescales.

Cumulative Impacts - Construction Phase

Traffic and Transport

Positive

19.25 No impacts identified.

Neutral

19.26 No impacts identified.

Negative

19.27 The date of construction of the Gatwick Green Strategic Employment Site was assumed in Table 12.11.1 of Chapter 12 of the ES to be 20% complete in 2029, 50% in 2032 and 100% in 2047. However, evidence submitted to the Crawley Borough Local Plan Examination identifies the completion date as 2035 and this is now reflected in the Crawley Borough Local Plan 2023-2040 Modifications Consultation Draft, February 2024, and the Crawley Infrastructure Delivery Schedule December 2023 identifies on site delivery from 2027/28, indicating construction could commence in 2025. This Employment site is immediately to the east of the Project, east of Balcombe Road and immediately south of the M23 Spur. There is, therefore, considerable potential for overlaps to occur with the construction of the modified M23 Spur and particularly with the Balcombe Road bridge widening which is in close proximity to the northern access to the Gatwick Green site. This would create unassessed impacts to occur on the local highway network, particularly Balcombe Road, and/or on the operation of this Strategic Site. The Transport Assessment, paragraphs 15.5.24 and 18.7.5 acknowledges the modelling shows increases in north-south traffic between Horley and Crawley rerouting via Balcombe Road which would be exacerbated by additional site construction in the same area. The Applicant also needs to ensure that access to third party land, for this site and any other, is maintained throughout the construction period as a commitment within the the Construction Management Plan.

19.28 It is unclear to what extent the transport impacts of the development at West of Ifield have been considered alongside the construction phase of the Project. In paragraph 12.11.9 of Chapter 12 of the ES [\[APP-037\]](#) the Applicant indicates that in the absence of any anticipated construction methodology of the West of Ifield scheme it has not been considered necessary to include a cumulative assessment which includes the scheme. The Authorities do not agree with this decision by the applicant and consider there is the potential for unassessed and unmitigated impacts. Again, the Transport Assessment, paragraphs 15.5.24 and 18.7.5 acknowledges the modelling shows traffic may take a route on the west side of the Airport from Ifield Avenue in Crawley via Bonnets Lane, these routes are adjacent to the West of Ifield site.

19.29 There are a number of highways works associated with the West of Ifield scheme, in particular a multi-modal route which the West Sussex Transport Plan and the Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft February 2024, identify, extending from the A264 west of Kilnwood Vale to the A23 London Road north of County

Oak. The [West Sussex Transport Plan 2022–2036](#), confirms that:

"a Crawley Western Link Road (CWLR) has potential to support strategic economic and housing growth in Crawley and Horsham subject to future planning decisions. The vision for CWLR is for a multi-modal link road between the A264 and A23 that supports additional Fastway style bus services through extensive bus priority measures alongside active travel facilities. This vision will continue to be developed with local stakeholders to ensure that the scheme is deliverable and performs both transport and place-making roles". (Paragraph 7.82, page 71)

19.30 On this basis, a Crawley Western Link Road (including shared transport and active travel facilities) is identified as a Medium Term priority for Crawley (page 71) and Horsham (page 75. paragraph 7.106).

19.31 It is unclear at what stage works on the transport network would commence were the West of Ifield development to come forward, however possible congestion and driver delay on the A264, and subsequent increases on traffic on the local road network to the north of the A264 due to highways work taking place in the same time periods, have not been assessed, cannot be ruled out and are unquantified at present.

19.32 The [Horsham District Transport Study 2022](#), commissioned as part of the evidence base to support the emerging Local Plan and subsequently [updated in 2023](#), identified a number of "hotspots", where planned development is likely to impact the highway network. This included the westbound approach to the Moorhead roundabout in North Horsham. The study also highlighted the Faygate Roundabout / Faygate Lane junction to the west of Crawley along the A264 as being likely to see a significant impact on capacity, resulting in congestion and driver delays. While the study concluded that steps taken by the site promoters promoting development through the emerging Local Plan could mitigate this impact, the view of the Authorities is that the Applicant, by failing to assess construction impacts alongside the West of Ifield development, has not demonstrated there would be no significant impacts requiring standalone mitigation or a contribution towards coordinated mitigation measures here or elsewhere on the highway network.

Socio-economic

Positive

19.33 No impacts identified.

Neutral

19.34 No impacts identified.

Negative

19.35 Chapter 17 [\[APP-042\]](#) of the ES deals with the Socio-economic

assessment of the Project and section 17.11 specifically with the assessment of cumulative impacts. The issues likely to result around labour shortages highlighted in Section 18 of this document, however this is likely to be exacerbated when combined with the scale of development taking place in the same time period as the Project In section 17.11 of Chapter 17 the Applicant states that labour supply issues:

"Are not anticipated due to the general scale and mobility of the construction workforce. Furthermore, most of the other developments relate primarily to housing and some commercial developments which by their nature may require construction workforce comprising different skills and trades compared to the profile of workers likely to be demanded by the Project"

19.36 The Applicant has, however, provided no evidence to support the claim that the Project will not result in labour supply issues. The assumption that workforce required to deliver the scale of development in the local authority areas will not require a similar range of skills and trades is also not justified. The Authorities consider that the need and scale of infrastructure delivery (highways, utilities, and so on) associated with the development likely to come forward over the period of the Project's construction means this must be assessed more comprehensively and at a more localised level.

Cumulative Impacts - Operation Phase

Water Environment

Positive

22.37 No impacts identified.

Neutral

22.38 No impacts identified.

Negative

22.39 The Applicant has identified Thames Water as overseeing the capacity of the public sewer network which the wastewater system at the airport will discharge into and the CEA Table 20.7.1 acknowledges that the combination of the Project and other developments could put pressure on sewerage and treatment facilities. It states that liaison is ongoing with Thames Water. The Authorities have not yet been assured by the Applicant that Thames Water has confirmed that the impact of the DCO's increased wastewater flows, together with those from planned development in the area have been taken into account. The Authorities are concerned that the physical design of the Project works, including the new Reed beds, could compromise the ability of the Crawley Wastewater Treatment Works to expand should that be necessary in the future. Through its engagement with Thames Water in preparation of the

emerging Local Plan, HDC has been advised that an assessment of the impact wider projected development in the area will have on sewerage treatment works at Horley and Crawley is ongoing. The proposed site allocation at West of Ifield, together with the strategic employment site at Gatwick Green, would also feed into the Thames Water public sewer network and the Authorities are concerned that enforcement work likely to be required at the Crawley Wastewater Treatment works may have implications on the timescales of other development coming forward.

Noise and Vibration

Positive

22.40 No impacts identified.

Neutral

22.41 No impacts identified.

Negative

22.42 Chapter 14 of the ES [\[APP-039\]](#) deals with Noise and Vibration and paragraphs 14.11.7 to 14.13.38 consider the cumulative effects of the Project. Comments have been raised in relation to the ZoI used to assess noise impacts and the Authorities consider the assessment does not present a full picture of likely impacts. This has been set based on an area where noise levels are likely to be observed above the LOAEL. This does not, however, take account of the increased use of WIZAD which flies over the north of Horsham District nor does it consider the effect of overflights in populated, or tranquil rural areas, more generally. The assessment has not considered the permitted large scale development elsewhere, such as Land North of Horsham, on the basis this has been excluded from the assessment based on the ZoI. There is further discussion in Section 14 of this LIR around the implications of overflight in the north of the district, and the need to secure adequate protection and mitigation through thresholds and compensation, and these are applicable to future development not yet in operation.

Traffic and Transport

Positive

22.43 No impacts identified.

Neutral

22.44 No impacts identified.

Negative

22.45 As in the construction phase, the Applicant has concluded that no assessment of the Project alongside the construction phase of the West of Ifield scheme is required due to the lack of construction methodology for

the proposed site allocation (paragraph 12.11.9 of Chapter 12 of the ES ([APP-037](#))). The absence of information is not considered to be justification for lack of assessment and work carried out to support its Regulation 19 Local Plan document has suggested there is mitigation required on the highways network outside the development. Furthermore, works on the multi-modal route, part of which is linked with the West of Ifield scheme but which the West Sussex Transport Plan and the Crawley Borough Local Plan Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 identify as extending from the A264 west of Kilnwood Vale to the A23 London Road north of County Oak are also likely to interact with the development.

22.46 While it is unclear at what stage works on the transport network would commence were the West of Ifield development to come forward, there is a risk of congestion and driver delay on the A264, and subsequent increases on traffic on the local road network to the north of the A264 due to highways work taking place in the same time periods, and the cumulative effect of the Project alongside this has not been assessed. Required Mitigation (Construction and Operation)

Required Mitigation

22.47 Many of the concerns highlighted in relation to the assessment of cumulative effects relate to the lack of sufficient explanation of the rationale and decision making, and lack of early engagement on the process followed by the Applicant. In the light of this, any mitigation will require positive and early engagement with the Authorities if potentially significant impacts are to be mitigated successfully.

22.48 In terms of the possible risk to labour supply, the Applicant should ensure assessments are split into local authority areas, acknowledging the likely distance many NHB construction workers are likely to travel.

22.49 Issues around the demand placed on affordable housing should be explored further by the Applicant. It is likely that much of the demand on affordable and temporary (private rented) accommodation arising from the Project could be met via the mitigation proposed under the Socio-economic section of this document. This would allow residual demand from construction on other sites to be met in the local area. A mechanism should also be sought for the Applicant to make contributions towards affordable housing in local authority areas to ensure the Project does not impact the ability of local authorities to meet the demand for all types and tenure of affordable housing.

22.50 The effects of the Project, Heathrow R3 and other development scoped into the CEA should be considered in combination to ensure mitigation delivered is in response to a worst case scenario in line with guidance.

22.51 An assessment of the cumulative transport impacts of the Project with the Gatwick Green Strategic Employment site and the West of Ifield proposed site allocation should be carried out for both construction and operation phases using what would reasonably be assumed to be a worst case scenario.

22.52 Controls around the use of WIZAD to ensure no overflight of the built up areas of Horsham Town including development sites at North of Horsham and West of Ifield is sought.

20. Health and Wellbeing

Summary

- 20.1 The Applicant has elected to embed a Health Impact Assessment (HIA) within the body of the EIA. Due to the selection of Key Performance Indicators (KPIs) and the amalgamation of data across the different geographical areas, the impact of the Project on the health of local communities may not have fully identified the specific risks, inequalities, and consequently the mitigation that may be recommended to protect the health of residents. For example, there are considerable and existing health inequalities in the area. These are masked by the grouping of deprived wards with affluent wards (for example Langley Green ward and Pound Hill North) and grouping of local authorities such as Crawley with Horsham and Mid Sussex, who on many outcome measures, are some of the healthiest places in England. Crawley on the other hand, has one of the lowest physical activity rates for adults in England and the second highest smoking rate in the South East. It also has one of the highest rates of homelessness in the South East. None of this is apparent in the documents submitted by the Applicant.
- 20.2 The Applicant is asked to review and reconsider the HIA using smaller geographical footprints to assess against any further need for mitigation in accordance with local need.
- 20.3 It is noted that some of the information is old, and whereas there will always be updated data, the impact of the pandemic is not adequately considered. It is noted that "*the pandemic disproportionately affected vulnerable groups, including due to age and ill-health*" (18.5.25), but does not recognise the impact on Crawley. Crawley had the highest take up rate of the Job Retention Scheme in the country, with 41% of eligible local jobs being supported by furlough in July 2020 and post pandemic Crawley has retained a relatively high percentage of people on out of work benefits and now has a child poverty rate (approx. 22%) significantly higher than England.
- 20.4 The Applicant is asked to clarify the plans for updating the data, including ongoing assessment of the health of local communities where the construction and operational may impact on the health of the population; this may include collaboration with the Authorities.
- 20.5 It is also considered by the Authorities that the assessment of vulnerable groups is unclear and may be inconsistent. It is also uncertain as to the specific mitigations and assessments made related to the vulnerable groups listed in the ES.
- 20.6 Additionally, clarification is needed on how the Applicant is describing health inequalities, including the health gap between the different communities and the general population. The amalgamation of the

data potentially masks inequalities that would inform the assessment for mitigation.

- 20.7 The Applicant is asked to make clear the assessment for mitigation against the needs of vulnerable groups and also local health inequalities.
- 20.8 In terms of vulnerable groups, there is insufficient clarity on how these are derived, and subsequently described within the submission documentation. (For example, Table 18.4.7 Baseline – indicators relevant to vulnerable groups relevant across health determinants, it is unclear why working age populations are seen as a vulnerable group). There is also no mention of how vulnerable groups may relate, or intersect, with protected characteristics for the Equality Act 2010.
- 20.9 The mitigation measures outlined within this LIR, regarding aspects related to health and wellbeing should be implemented by the Applicant to ensure these impacts are as minimised as possible during both construction and operational phases.

Table 20.1: Summary of Impacts – Health and Wellbeing					
Ref No.	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
20.1 A	Potential adverse impact on the health of West Sussex communities including vulnerable groups during construction and operational phases of the Project	C / O	Negative	The Applicant has not completed a standalone HIA or integrated a HIA to the same quality, scope, and scale as a standalone assessment specifically for West Sussex. It is recommended the Applicant undertakes a HIA that seeks to robustly assess the potential effects, including physical and mental, on the health of the population, analysis of some of the data on smaller geographies to highlight inequalities, and to make clear the mitigations or that need further consideration.	Public Health England (2020) Health Impact Assessment in Spatial Health Planning: A guide for local authority public health and planning teams. Airports National Policy Statement: health impact analysis, shortlisted schemes (publishing.service.gov.uk)
20.1 B	Limited local intelligence and insight into the planning assumptions of the Project, specifically how this may influence local communities and vulnerable populations	C/O	Negative	There is no evidence of how community engagement with the affected communities has influenced the outcome and any mitigation made in the Applicants' assessments. It is recommended the Applicant expands on the HIA that makes use of local intelligence and robustly engages vulnerable populations. The HIA should make clear how the Applicant has feedback from those communities to inform the assessment of health effects.	NPPF (Section 131)
20.1 C	Potential increased demand on local health care services	C/O	Negative	The impact from construction staff on primary care and secondary care services is evidenced. However, the increased footfall of passengers when increased flights are operational, and the impact on emergency attendances for this group within secondary care A&E services is	Airports NPS 2018 (Paragraph 4.70)

Table 20.1: Summary of Impacts – Health and Wellbeing					
Ref No.	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
				unclear. It is recommended that the Applicant provides clarity in relation to the points identified above.	
20.1 D	Potential to adversely impact air quality during construction and operational phases.	C /O	Negative	Reference is made to the required changes and mitigation measures as reported in this LIR, section 15- Air Quality. Also, reference is made to the UKHSA assessment (RR-4687) which identifies a potential moderate impact from long term concentrations which have not been detailed in the assessment. The Authorities support UKHSA recommendations in relation to air quality and clarity needed from the Applicant.	Airports NPS (2018) (Paragraphs 5.32 – 5.34) National Networks NPS: (Paragraph 5.12) NPPF (Paragraph 180)
20.1 E	Potential adverse noise impacts on health during construction and operational phases	C /O	Negative	Reference is made to the required changes and mitigation measures as reported in this LIR, section 16- Noise and Vibration. Increase in operations and flights, leading to an increase in noise are likely to adversely impact health. The increase is expected to rise by approx. 13 million passengers per annum (mppa) by 2047. UKHSA (RR-4687) notes limitations in the Applicant’s assessment of noise and evidence of effectiveness in relation to some of the mitigations. The Authorities support UKHSA’s assessment and recommendations in relation to noise pollution.	NPPF (Paragraph 191)
20.1 F	Potential adverse health and road	C/O	Negative	Potential negative impacts to health to surrounding residents due to increased road	NN NPS (Section 5)

Table 20.1: Summary of Impacts – Health and Wellbeing					
Ref No.	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
	safety impacts from increase traffic flows, congested roads, air quality and noise impacts and increased risk to pedestrian safety and to those living in close proximity to the road networks.			traffic from construction vehicles and increased passenger numbers. Reference is made to the required changes and mitigation measures as reported in LIR, section 17 - traffic and transport.	NPPF (Paragraphs 180 and 191)
20.1 G	Potential impact on healthy lifestyle behaviours due to land take at Riverside Garden Park and Church Meadows	C/O	Negative	The land is located within Surrey close to the West Sussex border and is accessible to West Sussex residents. There is potentially a negative impact on mental and physical health due to the inability to promote and sustain healthy behaviours that may be due to a reconfiguration of the recreational/green space. This might amount to limited and more difficult access to key facilities or may impact on the ability to safely undertake physical activity for example. The Applicant should assess the potential for proposed changes to the recreational space that may adversely impact on people' ability to maintain health and wellbeing. Additionally, the impact, and assessment of noise in recreational areas requires further understanding, ideally through engagement	NPPF 2023: (Section 98 and Section 102).

Table 20.1: Summary of Impacts – Health and Wellbeing					
Ref No.	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
				with communities to understand local views and concerns.	
20.1 H	Potential economic and socio economic – creation of construction and operational phase jobs	C /O	Positive/Negative	Reference is made to the identified impacts, required changes and mitigation measures as reported in the local economic and socio-economic factors, section 18 of this LIR.	Airports NPS (Paragraph 5.266)
20.1 I	Potential adverse impacts from light pollution	C/O	Negative	Applicants’ assessment identifies a detrimental public health impact from nighttime lighting.	NPPF 2023 (Section 191) Airports NPS 2018: (Paragraph 5.230)

Policy Context

National Policy Statements

Airports National Policy Statement 2018

- 20.10 The construction and use of airports infrastructure has the potential to affect people's health, wellbeing, and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.
- 20.11 The ANPS notes that in paragraph 5.33, the Applicant should include in the assessment of air quality: *"Any likely significant air quality effects of the scheme, their mitigation and any residual likely significant effects, distinguishing between those applicable to the construction and operation of the scheme including any interaction between construction and operational changes and taking account of the impact that the scheme is likely to cause on air quality arising from road and other surface access traffic."*
- 20.12 Paragraph 5.266 states that the Government expect the Applicant to maximise the employment and skills opportunities for local residents, including apprenticeships, and paragraph 5.329 states that the SoS recognises airport expansion projects can provide economic growth and employment opportunities as well a negative impact on communities.

National Networks National Policy Statement 2014

- 20.13 Section 5 of the NNNPS includes matters such as impacts to air quality, noise and vibration, dust, odour, artificial light, smoke and steam.
- 20.14 Paragraph 5.12 states that: *"the SoS must give air quality considerations substantial weight where, after taking into account mitigation, a project would lead to a significant air quality impact in relation to EIA and/or where they lead to a deterioration in air quality in a zone/agglomeration."*
- 20.15 Paragraph 5.186 states that *"Excessive noise can have wide-ranging impacts on the quality of human life and health (e.g. owing to annoyance or sleep disturbance), use and enjoyment of areas of value (such as quiet places) and areas with high landscape quality. The Government's policy is set out in the Noise Policy Statement for England. It promotes good health and good quality of life through effective noise management"*.

Other National Policy

National Planning Policy Framework 2023

- 20.16 Section 131 states that *'the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process. Section 134 states that whoever prepares them, all guides and codes should be based on effective community engagement and reflect local aspirations for the development of their area'*.
- 20.17 Air quality is considered an important element of the natural environment within the NPPF. On conserving and enhancing the natural environment, Paragraph 180 states that: *"Planning policies and decisions should contribute to and enhance the natural and local environment by: ...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 ..."*
- 20.18 Section 98 includes consideration of planning policies and decisions that should aim to achieve healthy, inclusive and safe places and beautiful buildings which *'C) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure'*.
- 20.19 Section 102 states that *'Access to a network of high-quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities and can deliver wider benefits for nature and support efforts to address climate change'*.

Health Impact Assessment in Spatial Planning: A guide for local authority public health and planning teams. Public Health England (2020)

- 20.20 Public Health England was replaced by the UK HSA and the Office for Health Improvement and Disparities. The UK Health Security Agency are listed as a statutory consultee by the Planning Inspectorate (PINS) and oversee and manage the public health response from UKHSA and OHID. Within this, both organisations provide evidence-based guidance to the public health locally to support public health decision making and actions. UKHSA will provide advice and guidance on biophysical elements such as noise and water, and OHID covers health and well-being considerations.

- 20.21 As advised by the Planning Inspectorate, local authorities have a supportive role in influencing the preparation of the developer's application and whilst not the decision maker, will want to contribute towards the development of the proposals with the benefit of their detailed local knowledge.
- 20.22 In recognising the local authority contribution, Public Health England published guidance in 2020 to support public health and planning teams in the use of Health Impact Assessments (HIA). The document states that *'discussions between the local authority public health team, planning policy team, and the development management team, during pre-application, can then take place to determine whether an HIA is justified'*. The document also states *'Local authority public health and planning teams will not usually carry out an HIA assessment. However, they can provide advice, for example during pre-application, to planning applicants on the best ways to consider the health impacts of the plan or development project.'*

Local Policy

West Sussex Public Health and Sustainability Framework

- 20.23 Creating healthy and sustainable places: A public health and sustainability framework for West Sussex. [Creating healthy and sustainable places. A framework for West Sussex](#). This framework provides public health guidance to decision makers about creating healthy and sustainable places and communities in West Sussex. It includes a toolkit that aims to provide background evidence, signposting to information and tools in order to assist users to achieve healthier places across West Sussex.

Crawley Borough Local Plan 2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

- 20.24 Strategic Policy SD2: Enabling Healthy Lifestyles and Wellbeing requires development to be designed to achieve healthy, inclusive and safe places, including through meeting the needs of all through accessible design, providing opportunities for high quality open space, and prioritising accessible and reliable public transport and safe and attractive opportunities for active travel. The policy requires all major development to undertake a Health Impact Assessment, to enable proposals to be refined to maximise positive benefits on health and wellbeing and ensure health impacts on surrounding vulnerable communities and sensitive uses are taken into account.

Applicant's Approach to Assessment

- 20.25 The Applicant has undertaken an EIA which they advise integrates HIA guidance (APP- 043). It is recognised that since March 2017, EIAs should also consider the human health impacts. Within this [Public Health](#)

[England \(2020\)](#) advises that where an EIA is required, a HIA should be integrated into an EIA process and should be undertaken to the same quality, scope and scale as a standalone HIA.

- 20.26 The Applicant has elected to embed a HIA within the body of the EIA. Due to the selection of KPIs and the amalgamation of data across the different geographical areas, the impact of the Project on the health of local communities may not have fully identified the specific risks, inequalities, and consequently the mitigation that may be recommended to protect the health of residents. For example, there are considerable and existing health inequalities in the area. These are somewhat masked by the grouping of deprived wards with affluent wards (for example Langley Green ward and Pound Hill North) and grouping of local authorities such as Crawley with Horsham and Mid Sussex, who on many outcome measures, are some of the healthiest places in England. Crawley on the other hand has one of the lowest physical activity rates for adults in the England and the second highest smoking rate in the South East. It also has one of the highest rates of homelessness in the South East. None of this is apparent in the document as drafted.
- 20.27 It is noted that some of the information is outdated, and whereas there will always be updated data, the impact of the pandemic is not adequately considered. It is noted that "*the pandemic disproportionately affected vulnerable groups, including due to age and ill-health*" (18.5.25), but does not recognise the impact on Crawley.
- 20.28 Crawley had the highest take up rate of the Job Retention Scheme in the country, with 41% of eligible local jobs being supported by furlough in July 2020 and post pandemic Crawley has retained a relatively high percentage of people on out of work benefits and now has a child poverty rate (approx. 22%) significantly higher than England. Whilst it is unclear whether the latest data would make a significant change to the outcome, some of the statements are likely to be incorrect, for example, the conclusion that mental health is an improving trend. Without consideration of latest available data, parts of the ES may be incorrect in its assessment.
- 20.29 It is considered that the assessment of vulnerable groups is unclear and may be inconsistent. It is also uncertain as to the specific mitigations and assessments made related to the vulnerable groups listed in the ES.
- 20.30 In terms of vulnerable groups, there is insufficient clarity on how these are derived, and subsequently described within the document. (For example Table 18.4.7 Baseline – indicators relevant to vulnerable groups relevant across health determinants, it is unclear why working age populations are seen as a vulnerable group). There is also no mention of how vulnerable groups may relate, or intersect, with protected characteristics for the Equality Act 2010.

- 20.31 Whilst the ES broadly considers the health impacts, the Authorities do not believe this is to the same quality, scope, and scale as a standalone HIA for West Sussex. The PHE guidance document also recognises the important role of local authority public health and planning teams in supporting applicants with advice as to the need and scope of a HIA.
- 20.32 The aim of the HIA is to assess the '*potential effects on the health of the population and the distribution of those effects within the population*' (1999, WHO consensus conference). Whilst the Applicants ES considers health impacts across several local authority areas, the health effects, and the distribution of those effects in West Sussex communities, including vulnerable groups is unclear.

Construction and Operation - impacts

- 20.33 All impacts identified are relevant to both construction and operational phases and are therefore discussed together (although where phasing impacts are different, this is stated) within this section of the LIR.

Positive

- 20.34 It is acknowledged that the construction and operational phases are likely to create jobs and therefore a positive impact, however, Section 17 of this LIR also identifies negative aspects including the overestimation of the benefits of employment generation. Concern is also raised on whether these jobs can be accessed by the Authorities residents. See Section 17 for further concerns raised by the Authorities.
- 20.35 The Airport NPS, states that the government would expect applicants to maximise the employment and skills opportunities for residents, including apprenticeships. That said, whilst there is a potential for positive impacts in terms of local economic growth, the government also recognised the potential negative impacts on communities which would need to be balanced.

Neutral

- 20.36 No neutral impacts have been identified during the construction and operational phases of the Project.

Negative

Impact on health lifestyle behaviours due to land take at Riverside Garden Park and Church Meadows

- 20.37 The green space lost to construction at the Riverside Garden Park though in Surrey is accessible to West Sussex residents in the North of the County and though being replaced this is an opportunity to ensure the new green space has access to those with disabilities to allow inclusion, independence and empowerment, encourages community interaction, play and exercise.

- 20.38 The positive effects of urban green spaces on both physical and psychological wellbeing have been widely recognised. Access to these spaces create opportunities for physical activities and may reduce the risk of chronic disease. Green spaces are beneficial to the immune system and can positively modify physical responses to stress. They also enable social interaction and inclusion.
- 20.39 Links have been said to exist between the attributes of urban green spaces, such as their perceived accessibility and attractiveness, and the frequency of their usage. The perception of safety and quality by the public is also considered a significant factor in determining the use of green areas.
- 20.40 Land take from Riverside Garden Park and Church Meadows could lead to reconfiguration and alteration of their characteristics (including their perceived recreational quality) in such a way that could impact on their accessibility and attraction for use in undertaking physical activity. The Authorities are especially concerned that these impacts could be worse for certain population groups including people with disabilities and older adults.
- 20.41 Compounding this is the close proximity of alternative green areas to the airport runways- for instance, the substitution of the loss of Riverside Garden Park with the establishment of a green area at Carpark B. Airport generated noise in these areas may alter behaviours and have a negative impact on individuals' decisions to use these spaces for recreational purposes.

Health effects of noise due to construction and operational activities- on populations within the site-specific areas (the nine wards identified in the ES) and beyond

- 20.42 It is recognised that airport construction and infrastructure have the potential to affect people's health, wellbeing, and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.
- 20.43 Based on the Applicants mapping, showing current overflights there are a number of noise sensitive receptors, along with children and young people settings including secondary, primary and infant schools' day nurseries, preschool play groups and out of school care settings, in addition a number of care homes, susceptible to the increase in flights.
- 20.44 As outlined in the Project Description (APP-030), it is anticipated that by 2047 Gatwick's passenger throughput will increase by approximately 13million passengers per annum (mppa) to an expected total of 80.2mppa. This is a significant increase in flights, increasing the likelihood of noise pollution which will negatively impact health.

Health effects due to degradation of air quality

- 20.45 It is recognised in national planning and airport policy documents that airport construction and infrastructure can have direct harmful impacts on health because of air quality and emissions.
- 20.46 According to guidance published by [Public Health England](#) (November 2018), poor air quality is the greatest environmental risk to public health in the UK as long-term exposures to air pollutants can lead to adverse cardiovascular and respiratory outcomes and reduce life and healthy life expectancy.
- 20.47 With the evidence around the broader contribution of aviation in air degradation especially in urban areas, the risk of exceedances to air quality and their potential consequences on human health cannot be ignored.

Changes in Transport nature and flow

- 20.48 The Applicant is proposing highway mitigation measures to allow for extra passengers to access the airport. The intensification of the road corridor leading to and from the airport may impact on the health and wellbeing of those residents who live in close proximity to these road networks. Some of these health effects may be mediated through noise and air quality pathways, but also potentially impacting mental, cognitive and psychological health due to the changes in traffic conditions of this intensification.

Potential increased demand on local health care services

- 20.49 The impact from construction staff on primary care and secondary care services is evidenced by the Applicant. However, the increased footfall of passengers when increased flights are operational, and the impact on emergency attendances for this group within secondary care A&E services is unclear.

Light Pollution

- 20.50 It is recognised that airport construction and operational infrastructure have the potential to affect people's health and well-being and quality of life with noise, vibration, air quality, and light pollution having a direct impact.
- 20.51 In reviewing the Applicant's assessment, they recognise the detrimental public health impact of nighttime lighting. In reference to the concern of permanent lighting and temporary lighting during construction and the impacts on health (APP-043), PINs could not rule out significant health impacts from light pollution without further scoping of the scale and location of any requisite lighting.
- 20.52 The NPPF (2023), along with the ANPS (paragraph 5.2.30) and NNNPS (paragraph 5.82) states that new development should account for the likely effects of emissions such as dust, odour and artificial light.

20.53 In reviewing the application documents, it is considered that light pollution from permanent and temporary lighting due to the Project, will have a negative impact on public health and well-being and may adversely impact the natural environment.

Required Mitigation

20.54 The intensification of development at Gatwick Airport will lead to both construction and operational effects, which will have adverse impacts on the local communities of West Sussex and beyond. This is in relation to air quality, noise pollution, light pollution and changes to traffic volume and flow.

20.55 The Authorities support the recommendations within the Relevant Representation made by the UKHSA (RR-4687).

20.56 Given the duration of the construction programme will be up to 14 years, there is a lack of construction phasing information, which should be presented more clearly to enable local communities and the Authorities to understand if the impacts have been appropriately addressed and mitigated through the outline control documents.

20.57 There is a lack of clarity in the outline control document with regard to community engagement through the construction phase, which would help mitigate some of the above concerns. The Code of Construction Practice (CoCP) (APP-082) states that the Applicant will take '*reasonable steps to engage with the community*' but that only prior to construction, it will develop a Communications and Engagement Management Plan. The Authorities requests that this is secured through an outline control document, which is discussed with the relevant stakeholders during the examination.

20.58 The mitigation measures outlined within this LIR, regarding aspects related to health and wellbeing (particularly those within Section 8 Landscape, Townscape and Visual Resources), Section 13 (Air Quality), Section 14 (Noise and Vibration) and Section 17 (Traffic and Transport) should all be implemented by the Applicant to ensure these impacts are as minimised as possible during both the construction and operational phases.

20.59 The Applicant is asked to review and reconsider the HIA using smaller geographical footprints to assess against any further need for mitigation in accordance with local need.

20.60 The Applicant is asked to clarify the plans for updating the data, including ongoing assessment of the health of local communities where the construction and operational phases may impact on the health of the population; this may include collaboration with the Authorities.

20.61 Additionally, clarification is needed on how the Applicant is describing health inequalities, including the health gap between the different

communities and the general population. Again, the amalgamation of the data potentially masks inequalities that would inform the assessment for mitigation.

- 20.62 The Applicant is asked to make clear the assessment for mitigation against the needs of vulnerable groups and also local health inequalities.

21. Construction Waste

Summary

- 21.1 Construction and demolition activities related to the Project will give rise to large volumes of waste (1.5 million m³ excavation waste, and 620,000m² of concrete and asphalt, APP-053), which will require management on-site, at the construction compounds, and off-site. A large proportion of the waste is expected to be inert construction and demolition waste, which is often managed through crushing, screening and sorting activities, that give rise to noise and dust pollution.
- 21.2 The Airfield Satellite Contractor Compound, Car Park Z Compound and Car Park Y Compound are proposed to include crushing activities, which will give rise to noise and dust, the details of which will be determined post consent.
- 21.3 The Airports NPS states that *'The construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.'* (Paragraph 4.70). It is important therefore that there is clear understanding of the potential impacts of construction waste management, and the mitigation in place through the dDCO.
- 21.4 Paragraph 5.145 of the Airports NPS states that, *'The Secretary of State will consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from all stages of the lifetime of the development. The Secretary of State should be satisfied that the process set out provides assurance that:*
- *Waste produced will be properly managed, both onsite and offsite;*
 - *The waste from the proposed development can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arising should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arising in the area; and*
 - *Adequate steps have been taken to ensure that all waste arising from the site is subject to the principles of the waste hierarchy and are dealt with at the highest possible level within the hierarchy.'*
- 21.5 Construction is to be undertaken in accordance with the CoCP (APP-082). Paragraph 2.2.7 of the CoCP sets out which plans will require approval, including reference to a Dust Management Plans. No outline plan has been provided. The CoCP also requires further information about noise control

measures. It is not clear where the construction compounds waste management area will be set out (paragraph 4.5.5).

- 21.6 The CoCP is secured by Requirement 7 of the dDCO (AS-004) and therefore it is important to ensure that it is fit for purpose, and that the DCO requirement is sufficient. The CoCP does not provide sufficient assurances that construction waste will be managed appropriately, and that activities do not affect people's health, wellbeing and quality of life. Requirement 7 does not specify the follow-up management plans that require completion and approval as part of the CoCP.

Table 21.1 Summary of Impacts – Construction Waste					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
21.A	Potential impacts of construction phase waste management	C	Negative	<p>Strengthening of the CoCP to ensure that impacts of construction waste management are controlled, including in Air Quality and Noise. Provide a Dust Management Plan and more information on noise controls during the construction phase.</p> <p>Strengthen the dDCO Requirement 7, to list the management plans that will require f</p>	<p>Airports ANPS Paragraphs 4.70, 5.80, 5.136, 5.137, 5.138, 5.143, 5.145, 5.146.</p> <p>National Planning Policy for Waste Paragraphs 7 - 8</p> <p>West Sussex Waste Local Plan (April 2014). Policies W12, W16, W19, W23.</p>

Policy Context

National Policy Statements

Airports National Policy Statement

21.7 The Airports NPS, paragraph 4.70 states that, *'The construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.'*

21.8 Paragraph 5.80 states that, *'Mitigation measures at the construction stage should also be provided and draw on best practice from other major construction schemes, including during the procurement of contractors. Specific measures could include but are not limited to... Reduction of waste, and the transport of waste.'*

21.9 Paragraph 5.136 states that, *'sustainable waste management is implemented through the waste hierarchy:*

- *Waste prevention*
- *Preparing for reuse*
- *Recycling*
- *Other recovery, including energy recovery; and*
- *Disposal'*

21.10 Paragraph 5.137 states that, *'The targets for preparation for re-use and recycling of municipal waste (50%), and for construction and demolition waste (70%) set out by the Waste Framework Directive (2008/98/EC) should be considered 'minimum acceptable practice' for the construction and operation of any new airport infrastructure. Exceeding these targets if possible by aiming for exemplar performance in resource efficiency and waste management is recommended, to align with the principles of the EU Action Plan for the Circular Economy'*

21.11 Paragraph 5.138 states that, *'Large airport infrastructure projects may generate hazardous and non-hazardous waste during construction and operation. The Environment Agency's environmental permitting regime incorporates operational waste management controls for certain activities. When the applicant applies to the Environment Agency for an environmental permit, the Environment Agency will require the application to demonstrate that processes are in place to meet all relevant conditions.'*

21.12 Paragraph 5.141 states that, *'The applicant should set out the arrangements that are proposed for managing any waste produced in the application for development consent. The arrangements described should include information on the proposed waste recovery and disposal system*

for all waste generated by the development. The applicant should seek to minimise the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental, social and economic outcome when considered over the whole lifetime of the project.'

21.13 Paragraph 5.143 states that, '*The applicant should set out a comprehensive suite of mitigations to eliminate or significantly reduce the risk of adverse impacts associated with resource and waste management.'*

21.14 Paragraph 5.145 states that, '*The Secretary of State will consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from all stages of the lifetime of the development. The Secretary of State should be satisfied that the process set out provides assurance that:*

- *Waste produced will be properly managed, both onsite and offsite;*
- *The waste from the proposed development can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arising should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arising in the area; and*
- *Adequate steps have been taken to ensure that all waste arising from the site is subject to the principles of the waste hierarchy¹⁹⁰ and are dealt with at the highest possible level within the hierarchy.'*

21.15 Paragraph 5.146 states that, '*Where necessary, the Secretary of State will require the applicant to develop a resource management plan to ensure that appropriate measures for sustainable resource and waste management are secured.'*

National Networks National Policy Statement

21.16 The National Networks NPS, paragraph 5.39 states that, '*Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Where this is not possible, waste management regulation ensures that waste is disposed of in a way that is least damaging to the environment and to human health.'*

21.17 Paragraph 5.40 states that, '*sustainable waste management is implemented through the waste hierarchy:*

- *Waste prevention*
- *Preparing for reuse*
- *Recycling*

- *Other recovery, including energy recovery; and*
- *Disposal'*

21.18 Paragraph 5.41 states that, '*Large infrastructure projects may generate hazardous and non-hazardous waste during construction and operation. The Environment Agency's environmental permitting regime incorporates operational waste management controls for certain activities. When the applicant applies to the Environment Agency for an environmental permit, the Environment Agency will require the application to demonstrate that processes are in place to meet all relevant permit requirements.'*

21.19 Paragraph 5.42 states that, '*The applicant should set out the arrangements that are proposed for managing any waste produced. The arrangements described should include information on the proposed waste recovery and disposal system for all waste generated by the development. The applicant should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental outcome.'*

21.20 Paragraph 5.43 states that, '*The Secretary of State should consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from the construction and operation of the proposed development. The Secretary of State should be satisfied that the process sets out:*

- *any such waste will be properly managed, both on-site and off-site;*
- *the waste from the proposed facility can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area; and*
- *adequate steps have been taken to minimise the volume of waste arisings, and of the volume of waste arisings sent to disposal, except where an alternative is the most sustainable outcome overall.*

21.21 Paragraph 5.44 states that, '*Where necessary, the Secretary of State should use requirements or planning obligations to ensure that appropriate measures for waste management are applied.'*

21.22 Paragraph 5.45 states that, '*Where the project will be subject to the Environment Agency's environmental permitting regime, waste management arrangements during operations will be covered by the permit and the considerations set out in paragraphs 4.48 to 4.56 will apply.'*

National Planning Policy for Waste (October 2014)

- 21.23 The National Planning Policy for Waste (NPPW) sets out detailed waste planning policies and is to be read in conjunction with the NPPF.
- 21.24 Paragraph 8 states that, *'when determining planning applications for non-waste development, local planning authorities should...ensure that the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal.'*

WSCC Relevant Policy

- 21.25 The West Sussex Waste Local Plan (WLP) (April 2014) sets out a Vision, Strategic Objectives, and a comprehensive set of policies for consideration of waste development in the County. The following Strategic Objectives are relevant to the project;
- Strategic Objective 2: *'To enable the progressive movement of nonmunicipal waste up the waste hierarchy away from landfill.'*
 - Strategic Objective 13: *'To protect and, where possible, enhance the health and amenity of residents, businesses, and visitors.'*
 - Strategic Objective 14: *'To minimise carbon emissions and to adapt to, and to mitigate the potential adverse impacts of, climate change.'*
- 21.26 Policy W12, High Quality Waste Developments, states that *'Proposals for waste development will be permitted provided that they are of high quality and, where appropriate, the scale, form, and design (including landscaping) take into account the need to:*
- (1) *integrate with and, where possible, enhance adjoining land-uses and minimise potential conflicts between land-uses and activities;*
 - (2) *have regard to the local context including:*
 - (i) *the varied traditions and character of the different parts of West Sussex;*
 - (ii) *the characteristics of the site in terms of topography, and natural and man-made features;*
 - (iii) *the topography, landscape, townscape, streetscape and skyline of the surrounding area;*
 - (iv) *views into and out of the site; and*
 - (v) *the use of materials and building styles;*
 - (3) *includes measures to maximise water efficiency;*

- (4) *include measures to minimise greenhouse gas emissions, to minimise the use of non-renewable energy, and to maximise the use of lower-carbon energy generation (including heat recovery and the recovery of energy from gas); and*
- (5) *include measures to ensure resilience and enable adaptation to a changing climate.'*

21.27 WSCC`s High Quality Waste Facilities Supplementary Planning Document (2006), referenced within the supporting text of Policy W12, provides guidance about the design and layout of waste management facilities.

21.28 Policy W16, Air, Soil and Water, states that, *'Proposals for waste development will be permitted provided that;*

- (1) *there are no unacceptable impacts on the intrinsic quality of, and where appropriate the quantity of, air, soil, and water resources (including ground, surface, transitional, and coastal waters);*
- (2) *there are no unacceptable impacts on the management and protection of such resources, including any adverse impacts on Air Quality management Areas and Source Protection Zones;*
- (3) *the quality of rivers and other watercourses is protected and, where possible, enhanced (including within built-up areas); and*
- (4) *they are not located in areas subject to land instability, unless problems can be satisfactorily resolved.'*

21.29 Policy W19, Public Health and Amenity, states that, *'Proposals for waste development will be permitted provided that;*

- (1) *lighting, noise, dust, odours and other emissions, including those arising from traffic, are controlled to the extent that there will not be an unacceptable impact on public health and amenity;*
- (2) *the routes and amenities of public rights of way are safeguarded, or where temporary or permanent re-routeing can be justified, replacement routes of comparable or enhanced amenity value are provided; and*
- (3) *where necessary, a site liaison group is established by the operator to address issues arising from the operation of a major waste management site or facility.'*

22 Policy W23, Waste Management within Development, states that, *'Proposals for development will be permitted provided that;*

- (1) *the waste generating during construction, demolition and excavation is minimised and that opportunities for re-using or recycling of waste are minimised; and*
- (2) *waste management facilities of an appropriate type and scale are an integral part of the development.'*

Construction Phase – impacts

Positive

21.30 No positive impacts during the construction phase are identified.

Neutral

21.31 No neutral impacts during the construction phase are identified.

Negative

21.31 Construction and demolition activities related to the Project will give rise to large volumes of waste (1.5 million m³ excavation waste, and 620,000m² of concrete and asphalt, APP-053), which will require management on-site at the construction compounds, and off-site. A large proportion of the waste is expected to be inert construction and demolition waste, which is often managed through crushing, screening, and sorting activities that give rise to noise and dust pollution.

21.32 The Airfield Satellite Contractor Compound, Car Park Z Compound, and Car Park Y Compound are proposed to include crushing activities, which will give rise to noise and dust, the details of which will be determined post consent. It is noted that no Dust Management Plan (or outline plan) has been provided, and that the reference to noise control measures within the CoCP is limited.

21.33 Paragraph 4.5.5 of the Code of Construction Practice (CoCP) (APP-082) sets out that the construction compounds will include waste management areas, and references the Construction Resource and Waste Management Plan (CRWMP) (APP-087). Neither the CoCP or CRWMP provide detail of where within the construction compounds these activities will take place.

Required Mitigation

21.34 The CoCP is secured by Requirement 7 of the dDCO (AS-004) and therefore it is important to ensure that it is fit for purpose, and that the requirement is sufficient.

21.35 The CoCP does not provide sufficient assurances that construction waste will be managed appropriately, and that activities do not affect people's health, wellbeing and quality of life. No information is provided about the location of waste management areas within the compounds, as specified by the CoCP. This CoCP should be strengthened.

21.36 Chapters 13 and 14 of this LIR set out the Authorities views respectively, on Air Quality and Noise and Vibration, that are relevant to the issues of concern around the management of construction waste, particularly crushing and screening activities.

21.37 Requirement 7 of the DCO should be strengthened, specify the follow-up management plans that require completion and approval as part of the CoCP, including the Dust Management Plan, that should be provided as an outline document as part of the examination.

22. Operational Waste

Summary

- 22.1 One of the key elements of the Project is the construction of a replacement Central Area Recycling Centre (CARE) facility (Works No.9). The information provided by the Applicant lacks detail, with only broad information provided within the Project Description (APP-030) on the proposals, that encompasses a building up to 22m in height, and a single stack of up to 48m, biomass boilers, and a Materials Recovery Facility (MRF). The development of this facility could be considered EIA development in its own right, however there is no detailed consideration of the potential impacts, therefore no clarity on suitable mitigation measures, or how they are controlled in the DCO.
- 22.2 The Airports NPS states that 'The construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.' (Paragraph 4.70). It is important therefore that there is clear understanding of the potential impacts of the CARE facility, that is considered to be a key part of the airport's infrastructure.
- 22.3 Paragraph 5.141 of the Airports NPS states that, 'The applicant should set out the arrangements that are proposed for managing any waste produced in the application for development consent. The arrangements described should include information on the proposed waste recovery and disposal system for all waste generated by the development. The applicant should seek to minimise the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental, social and economic outcome when considered over the whole lifetime of the project.'
- 22.4 Paragraph 5.145 of the Airports NPS states that, 'The Secretary of State will consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from all stages of the lifetime of the development. The Secretary of State should be satisfied that the process set out provides assurance that:
- Waste produced will be properly managed, both onsite and offsite;
 - The waste from the proposed development can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arising should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arising in the area; and
 - Adequate steps have been taken to ensure that all waste arising from the site is subject to the principles of the waste hierarchy and are dealt with at the highest possible level within the hierarchy.'

- 22.5 Understanding the need for, and impact of this element of the Project is imperative. There is, however, no baseline provided about the existing waste operations at Gatwick Airport. There are no projections or forecasts for waste amounts expected (including waste streams), and therefore justification for the proposed facility (including technology) is not provided. Without this information, it is not possible for the Secretary of State to be able to determine if the waste produced will be properly managed, in line with the waste hierarchy, or the potential for adverse effects of the CARE facility, as set out in paragraph 5.145 of the Airports NPS.
- 22.6 An outline operational waste management plan should be provided, that includes the information required to understand the amounts of operational waste expected. It should set out how waste will be managed, reference targets and the Waste Hierarchy, and allow for the understanding of potential impacts. The outline operational waste management plan should form a requirement of the DCO.
- 22.7 The Design Principles should be updated for the CARE facility, so that it will be designed to limit the impacts associated with operating waste facilities.

Table 22.1: Summary of Impacts – Operational Waste					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Avoid, Reduce, Mitigate, Compensate)	Policy Context
	Operation of new CARE waste facility (as submitted, to include biomass boilers and associated stack)	O	Negative	<p>Provide an assessment and outline operational waste management plan to demonstrate how operational waste will be managed, through the new CARE facility. The assessment should provide information on the current and future waste needs, and how waste will be managed in accordance with the Waste Hierarchy and national waste policy targets.</p> <p>Include, in the dDCO, a requirement to ensure waste is managed in accordance with the operational waste management plan, that includes reference to targets, the Waste Hierarchy and seeks to minimise the impacts of waste operations.</p> <p>Update the Design Principles - to ensure the CARE facility/building will be designed to limit the impacts associated with operating waste facilities, including, but not limited to, noise, dust, odour, vermin etc</p>	<p>Airports ANPS Paragraphs 4.70, 5.80, 5.136, 5.137, 5.138, 5.141, 5.143, 5.145, 5.146.</p> <p>National Planning Policy for Waste Paragraphs 7 - 8</p> <p>West Sussex Waste Local Plan (April 2014). Policies W12, W16, W19, W23</p>

Policy Context

National Policy Statements

Airports National Policy Statement

- 22.8 The Airports NPS, paragraph 4.70 states that, 'The construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests.'
- 22.9 Paragraph 5.136 states that, 'sustainable waste management is implemented through the waste hierarchy:
- Waste prevention
 - Preparing for reuse
 - Recycling
 - Other recovery, including energy recovery; and
 - Disposal'
- 22.10 Paragraph 5.137 states that, 'The targets for preparation for re-use and recycling of municipal waste (50%), and for construction and demolition waste (70%) set out by the Waste Framework Directive (2008/98/EC) should be considered 'minimum acceptable practice' for the construction and operation of any new airport infrastructure. Exceeding these targets if possible by aiming for exemplar performance in resource efficiency and waste management is recommended, to align with the principles of the EU Action Plan for the Circular Economy'
- 22.11 Paragraph 5.138 states that, 'Large airport infrastructure projects may generate hazardous and non-hazardous waste during construction and operation. The Environment Agency's environmental permitting regime incorporates operational waste management controls for certain activities. When the applicant applies to the Environment Agency for an environmental permit, the Environment Agency will require the application to demonstrate that processes are in place to meet all relevant conditions.'
- 22.12 Paragraph 5.141 states that, 'The applicant should set out the arrangements that are proposed for managing any waste produced in the application for development consent. The arrangements described should include information on the proposed waste recovery and disposal system for all waste generated by the development. The applicant should seek to minimise the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental, social and economic outcome when considered over the whole lifetime of the project.'
- 22.13 Paragraph 5.143 states that, 'The applicant should set out a comprehensive suite of mitigations to eliminate or significantly reduce the risk of adverse impacts associated with resource and waste

management.'

22.14 Paragraph 5.145 states that, 'The Secretary of State will consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from all stages of the lifetime of the development. The Secretary of State should be satisfied that the process set out provides assurance that:

- Waste produced will be properly managed, both onsite and offsite;
- The waste from the proposed development can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arising should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arising in the area; and
- Adequate steps have been taken to ensure that all waste arising from the site is subject to the principles of the waste hierarchy and are dealt with at the highest possible level within the hierarchy.'

22.15 Paragraph 5.146 states that, 'Where necessary, the Secretary of State will require the applicant to develop a resource management plan to ensure that appropriate measures for sustainable resource and waste management are secured.'

Other National Policies

National Planning Policy for Waste (October 2014)

22.16 The National Planning Policy for Waste (NPPW) sets out detailed waste planning policies and is to be read in conjunction with the NPPF.

22.17 Paragraph 7 of NPPW states that, 'when determining waste planning applications, waste planning authorities should:

- expect applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities where proposals are not consistent with an up-to-date Local Plan. In such cases, waste planning authorities should consider the extent to which the capacity of existing operational facilities would satisfy any identified need;
- recognise that proposals for waste management facilities such as incinerators that cut across up-to-date Local Plans reflecting the vision and aspiration of local communities can give rise to justifiable frustration, and expect applicants to demonstrate that waste disposal facilities not in line with the Local Plan, will not undermine the objectives of the Local Plan through prejudicing movement up the waste hierarchy;
- consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B³⁹ and the locational

³⁹ Appendix B of NPPW sets out locational criteria for testing the suitability of sites, and considerations key areas, including, but not limited to, protection of water quality and resources, landscape and visual impacts,

implications of any advice on health from the relevant health bodies. Waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies;

- ensure that waste management facilities in themselves are well-designed, so that they contribute positively to the character and quality of the area in which they are located;
- concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced;
- ensure that land raising or landfill sites are restored to beneficial after uses at the earliest opportunity and to high environmental standards through the application of appropriate conditions where necessary.'

22.18 Paragraph 8 states that, 'when determining planning applications for non-waste development, local planning authorities should...ensure that new, non-waste development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape...'

22.19 Paragraph 8 also states that, 'when determining planning applications for non-waste development, local planning authorities should...ensure that the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal.'

Local Policies

WSCC Relevant Policy

22.20 The West Sussex Waste Local Plan (WLP) (April 2014) sets out a Vision, Strategic Objectives, and a comprehensive set of policies for consideration of waste development in the County. The following Strategic Objectives are relevant to the Project;

- Strategic Objective 2: 'To enable the progressive movement of nonmunicipal waste up the waste hierarchy away from landfill.'
- Strategic Objective 13: 'To protect and, where possible, enhance the health and amenity of residents, businesses, and visitors.'
- Strategic Objective 14: 'To minimise carbon emissions and to adapt to, and to mitigate the potential adverse impacts of, climate change.'

22.21 Policy W1 of the WLP addresses the issue of need for waste management facilities. It sets out how proposals should be considered regarding the

nature conservation, traffic and access, air emissions, including dust, odours, vermin and birds, noise, light and vibration, and potential land use conflict.

need for recycling facilities (b) and recovery facilities (d), specifically stating that applicants should demonstrate the 'market need' for new recycling capacity, and that it is demonstrated that recovery proposals would reduce disposal to land of waste.

22.22 Policy W12, High Quality Waste Developments, states that 'Proposals for waste development will be permitted provided that they are of high quality and, where appropriate, the scale, form, and design (including landscaping) take into account the need to:

- (a) integrate with and, where possible, enhance adjoining land-uses and minimise potential conflicts between land-uses and activities;
- (b) have regard to the local context including:
 - (i) the varied traditions and character of the different parts of West Sussex;
 - (ii) the characteristics of the site in terms of topography, and natural and man-made features;
 - (iii) the topography, landscape, townscape, streetscape and skyline of the surrounding area;
 - (iv) views into and out of the site; and
 - (v) the use of materials and building styles;
- (c) includes measures to maximise water efficiency;
- (d) include measures to minimise greenhouse gas emissions, to minimise the use of non-renewable energy, and to maximise the use of lower-carbon energy generation (including heat recovery and the recovery of energy from gas); and
- (e) include measures to ensure resilience and enable adaptation to a changing climate.'

22.23 WSCC`s High Quality Waste Facilities Supplementary Planning Document (2006), referenced within the supporting text of Policy W12, provides guidance about the design and layout of waste management facilities.

22.24 Policy W16, Air, Soil and Water, states that, 'Proposals for waste development will be permitted provided that;

- (a) there are no unacceptable impacts on the intrinsic quality of, and where appropriate the quantity of, air, soil, and water resources (including ground, surface, transitional, and coastal waters);
- (b) there are no unacceptable impacts on the management and protection of such resources, including any adverse impacts on Air Quality management Areas and Source Protection Zones;
- (c) the quality of rivers and other watercourses is protected and, where possible, enhanced (including within built-up areas); and
- (d) they are not located in areas subject to land instability, unless problems can be satisfactorily resolved.'

22.25 Policy W19, Public Health and Amenity, states that, 'Proposals for waste development will be permitted provided that;

- (a) lighting, noise, dust, odours and other emissions, including those arising from traffic, are controlled to the extent that there will not be an unacceptable impact on public health and amenity;
- (b) the routes and amenities of public rights of way are safeguarded, or where temporary or permanent re-routing can be justified, replacement routes of comparable or enhanced amenity value are provided; and
- (c) where necessary, a site liaison group is established by the operator to address issues arising from the operation of a major waste management site or facility.'

22.26 Policy W23, Waste Management within Development, states that, 'Proposals for development will be permitted provided that;

- (a) the waste generating during construction, demolition and excavation is minimised and that opportunities for re-using and recycling of waste are maximised; and
- (b) waste management facilities of an appropriate type and scale are an integral part of the development.'

Applicant's Approach to Assessment

22.27 The information provided by the Applicant lacks detail, limited to paragraphs 5.2.50 – 5.2.53 of the Project Description (APP-030) and paragraphs 4.5.42 – 4.5.45 of the Planning Statement (APP—245).

22.28 There is no baseline information, allowing for a full understanding of existing waste management operations, including, but not limited to, the waste types and amounts per annum managed at the Airport, and off-site, the amount of heat energy that is captured (and what that forms as a percentage of existing heat demand), the hours of operation, the existing technologies in place, and any existing mitigation measures that are in place to control noise, dust, odour and vermin, etc. Without this information, it is not possible to understand and determine whether the proposed replacement facility is adequate, including through waste forecasts to assess future needs.

22.29 The Applicant's submission documents which reference the CARE facility, do not provide any information related to the Waste Hierarchy (as required by Airports NPS paragraph 5.136), and limited information on the arrangements for waste management (as required by Airports NPS paragraph 5.141). No reference to waste targets in relation to operational waste are provided (as set out in paragraph 5.137 of the Airports NPS), and there is no indication of any discussions between the Environment

Agency related to both the height of the proposed biomass boiler flue height, or in relation to environmental permitting (as described in the Airports NPS, paragraph 5.138). The Environment Agency's Relevant Representation (RR-1374) does not provide any response in relation to operational waste management.

22.30 The assessment of alternatives focuses on location of a replacement care facility, not on technology or waste management methods.

Construction Phase

Construction phase impacts have been identified specifically related to the construction of the CARE facility.

Operational Phase (as submitted) – impacts

Positive

22.31 The Project Description (paragraphs 5.2.50 – 5.2.51) (APP-030) states that the existing CARE facility provides heat energy, through the operation of a biomass boiler. The proposed new CARE facility would continue to provide heat energy via two new biomass boilers. The recovery of energy from waste is higher on the Waste Hierarchy than disposal, and is supported, where waste cannot be prevented, re-used, or recycled.

Neutral

22.32 No neutral impacts have been identified for the operational phase.

Negative

22.33 One of the key elements of the Project is the construction of a replacement CARE facility (Works No.9), that will manage operational waste at the airport. The information provided by the Applicant lacks detail, limited to paragraphs 5.2.50–5.2.53 of the Project Description (APP-030) and paragraphs 4.5.42 – 4.5.45 of the Planning Statement (APP—245). The Construction Resources and Waste Management Plan (APP-087) is only related to construction waste, and states that it 'does not consider waste generated from the operation of the airport and the on-site waste facilities that are used to manage this waste. Operational waste is considered in ES Chapter 5: Project Description...and the Design and Access Statement.' The Applicant has not provided an outline Operational Waste Management Plan, and the dDCO does not make reference to the operation of the CARE facility.

22.34 Without the relevant information required, as identified in the above paragraphs, there is no evidence or certainty that operational waste will be managed in like with National and local policies. The lack of controls associated with operational waste will likely result in negative impacts.

- 22.35 The detailed design of the CARE facility will be controlled by Requirement 4 of the dDCO (APP-006), which provides that the proposed development must be in accordance with the design principles of the DAS (APP-253 – 257).
- 22.36 Although the DAS sets out key considerations (Volume 5, paras 6.12.5.1–6.12.5.6), and design principles (DBF26, Volume 5, Appendix 1) for the design of the CARE facility, the information is high-level and limited. The design principles for the CARE facility do not provide further detail on how the building will be designed to limit the impacts associated with operating waste facilities, including, but not limited to, noise, dust, odour, vermin etc, and as required by the Airports NPS (paragraph 4.70). Comprehensive mitigation measures are not set out that seek to reduce adverse impacts of the CARE facility (Airports NPS, paragraph 5.143). Consideration is not given to NPPW Appendix B, WLP Policy W12, and the associated High Quality Waste Development SPD.

Required Mitigation

- 22.37 Without technical information, that provides detail on the existing operations (setting out a baseline of the types and amount of waste that is managed), and waste forecasts/projections of the amounts of waste anticipated with and without the NRP, it is not possible to determine if the proposals will be sufficient to manage waste. These should be provided through an outline operational waste management plan.
- 22.38 An outline operational waste management plan should be prepared that sets out a baseline, and how 'sustainable waste management is to be implemented through the waste hierarchy' (paragraph 5.136, ANPS). Targets should be set for the management of waste from the operation of the airport (paragraphs 5.137, ANPS), and details of how this will be achieved, including the avoidance of sending waste for disposal.
- 22.39 The DAS should be updated to ensure that the CARE facility will be designed to limit the impacts associated with operating waste facilities, as set out in Airports NPS, paragraph 5.143.

Requirements and Obligations

- 22.40 The dDCO should include a requirement for an outline operational waste management plan, that accords with Airports ANPS paragraph 5.146, and that considers targets and the Waste Hierarchy, as well as NPPW and local policies. Reference should be made to any operational waste management controls to meet the environmental permitting regime requirements should be included.

23. Major Accidents and Disasters

Summary

- 23.1 West Sussex Fire Authority was constituted under section 4 of the Fire and Rescue Services Act 2004. It is responsible for making sure that the West Sussex Fire & Rescue Service (WSFRS) performs efficiently and in the best interest of the public and community it serves. CBC's role is one of support to the Category 1 responding agencies such as WSFRS, should there be an incident.
- 23.2 To date, the Applicant has not provided specific information, through consultation or during the Major Accident and Disaster TWGs, on the impact of the Project on WSFRS' emergency operational response to incidents at Airport or in its vicinity. Included in this would be the foreseeable and potentially high impact emergencies detailed in the Gatwick Emergency Orders (document controlled by the Applicant).
- 23.3 To mitigate any risk and uncertainty during both the construction and operational phases of the Project, the Applicant must assess and address through engagement, the potential impact on WSFRS' ability to effectively respond to emergencies. WSFRS' has its own internal policies and procedures specifically for Gatwick Airport, with its primary responsibility to ensure the safety of both WSFRS staff and the public.
- 23.4 WSFRS collaborates with Blue Partners and responders to develop response plans for various high-risk and impact incidents that may arise within the Gatwick area. These plans mitigate at a high risk level and ensure a coordinated and efficient response. It is imperative that the Applicant recognises any uncertainty the Project will create regarding both WSFRS standard operating procedures for Gatwick Airport and the procedures jointly agreed upon with partners.

Table 23.1: Summary of Impacts – Major Accidents and Disasters					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral /Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
23.1 A	Potential impact to WSFRS' current and future responses to a range of emergency incidents at Gatwick Airport.	C/O	Negative	The Applicant is required to confirm that they comprehend the emergency response protocols of WSFRS in case of any incidents at Gatwick Airport or in its vicinity. The Applicant must maintain regular communication with WSFRS throughout the construction and operation of the Project to enable them to plan for any impact that may align with their existing emergency response operations, procedures and standards.	National Risk register 2023 NATIONAL RISK REGISTER NRR.pdf (publishing.service.gov.uk) Community Risk Register Community Risk Register for Sussex: 2023/24– Section 2 - Natural and Environmental Hazards: Inland Flooding Section 3 Accidents and system failures: Major Fire, Transport Accidents (Air, Rail and Road). Section 4 Societal: Terrorism Fire and Rescue Services Act 2004
23.1 B	Potential impact to CBC's current and future responses to a range of emergency incidents at Gatwick Airport	C/O	Neutral	Change: The Applicant should acknowledge the increased risk of an incident occurring due to additional aircraft movements and passengers however, this is not anticipated to affect CBCs response to such an incident.	National Risk register 2023 NATIONAL RISK REGISTER NRR.pdf (publishing.service.gov.uk) Community Risk Register Community Risk Register for Sussex: 2023/24– Section 2 - Natural and Environmental Hazards: Inland Flooding Section 3 Accidents and system failures: Major Fire, Transport Accidents (Air, Rail and Road). Section 4 Societal: Terrorism

Table 23.1: Summary of Impacts – Major Accidents and Disasters					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral /Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
23.1 C	Increased likelihood of a terrorist-related incident during the construction phase of the Project, and the impact of an incident of this nature.	C	Negative	The Applicant should work with WSFRS and other stakeholders to continually assess the risk of terrorist-related incidents during the Gatwick construction phase and provide timely updates to the existing Response Planning Group.	National Risk register chapter 4 – terrorism 2023 NATIONAL RISK REGISTER NRR.pdf (publishing.service.gov.uk) Community Risk Register – terrorism – section 4 societal terrorism. Section 3 Accidents and system failures
23.1 D	Potential impact to how quickly and effectively WSFRS will be able to respond to fire and other emergencies at the Airport.	C	Negative	WSFRS has provided the following geographical areas that are of interest and concern if there is an expected increase in travel times between these locations due to the Project. The Applicant must provide specific information on the impact.	WSFRS Community Risk Management Plan Community Risk Management Plan 2022-2026 - West Sussex County Council Fire and Rescue Act 2004 Fire and Rescue Services Act 2004 Fire and Rescue National Framework for England Fire and Rescue National Framework for England
23.1 E	WSFRS are adapting to the emergence of renewable energy systems and	O	Negative	The Applicant should collaborate with WSFRS to evaluate the hazard risks and uncertainties associated with system advancements and sustainable technology, thus	Taking Charge: the electric vehicle infrastructure strategy WSCC Transport Plan Government guidance on parking and charging for electric vehicles

Table 23.1: Summary of Impacts – Major Accidents and Disasters					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral /Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	electric-powered vehicles and aircraft. The construction and operation phases will need to access the potential impacts and downside risks associated with the direction towards Net Zero and sustainability			enabling WSFRS to be operationally prepared.	UK battery strategy (HTML version) - GOV.UK (www.gov.uk) Department for Energy Security and Net Zero

Policy Context

National Policy Statements

Airports National Policy Statement 2018

- 23.5 The construction and use of airports infrastructure may have safety implications which must be addressed by the Applicant through the submission documentation.
- 23.6 The ANPS notes in paragraph 4.5, "*environmental, safety, social and economic benefits and adverse impacts should be considered at national, regional and local levels*".
- 23.7 Paragraphs 4.63 to 4.69 includes security and safety considerations, and Paragraph 4.64 states that "*Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development*".
- 23.8 Paragraph 4.69 outlines the threat to aviation security from terrorism, and also states "*There may also be other security considerations linked to any application for development consent under the Airports NPS.*"

National Policy Statement for National Networks 2014

- 23.9 Section 4 of the NNNPS includes matters regarding safety.
- 23.10 Paragraph 4.60 states that: "*New highways developments provide an opportunity to make significant safety improvements. Some developments may have safety as a key objective, but even where safety is not the main driver of a development the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate. Highway developments can potentially generate significant accident reduction benefits when they are well designed.*"
- 23.11 Paragraph 4.64 to 4.66 states that "*The applicant should be able to demonstrate that their scheme is consistent with the Highways Agency's Safety Framework for the Strategic Road Network and with the national Strategic Framework for Road Safety. Applicants will wish to show that they have taken all steps that are reasonably required to:*
- *minimise the risk of death and injury arising from their development;*
 - *contribute to an overall reduction in road casualties;*
 - *contribute to an overall reduction in the number of unplanned incidents; and*
 - *contribute to improvements in road safety for walkers and cyclists.*
- 23.12 *They will also wish to demonstrate that:*

- they have considered the safety implications of their project from the outset; and
- they are putting in place rigorous processes for monitoring and evaluating safety.

23.13 *The Secretary of State should not grant development consent unless satisfied that all reasonable steps have been taken and will be taken to:*

- *minimise the risk of road casualties arising from the scheme; and*
- *contribute to an overall improvement in the safety of the Strategic Road Network”.*

Local Plan Policy

Local Plan Policy Crawley Borough Local Plan 2015-2030 (CBLP)

23.15 Policy GAT1 ‘Development of the Airport with a Single Runway’ supports development of single runway, two terminal airport provided that “i. *The proposed use is appropriate within the airport boundary and contributes to the safe and efficient operation of the airport”*

2023-2040, Main Modifications Consultation Draft, February 2024 (mCBLP)

23.16 Strategic Policy GAT1 ‘Development of the Airport with a Single Runway’ supports sustainable growth provided that “i. *The proposed use is appropriate within the airport boundary and contributes to the safe, secure and efficient operation of the airport”.*

23.17 Policy DD5 ‘Aerodrome Safeguarding’ supports development where consistent with the safe operation of Gatwick Airport and states that development leading to an increase in people living, working or congregating in public safety zones will be refused.

Other Relevant Policy

23.18 The National Risk Register (NRR) is the external version of the National Security Risk Assessment (NSRA), which is the government’s assessment of the most serious risks facing the UK. WSFRS uses the NRR alongside Sussex’s Community Risk Register to plan and prepare for risk events lists. For example, an Aviation Collision, Rail Accident or a Major Fire.

23.19 The Community Risk Register (CRR) is a localised version of the NRR. Each Local Resilience Forum has a statutory responsibility to publish a CRR. The CRR for Sussex provides information on the possible emergencies that could affect Sussex, together with an assessment of how likely they are to happen and the impacts if they do. WSFRS will plan and prepare for the following risk events.

- Section 2 - Natural and Environmental Hazards: Inland Flooding;
- Section 3 Accidents and system failures: Major Fire, Transport Accidents (Air, Rail and Road); and
- Section 4 Societal: Terrorism.

- 23.20 WSFRS – Gatwick Standard Operating Procedures. This document details the emergency response operating procedures for WSFRS for several incident types with alignment with partner agencies and responders.
- 23.21 The Fire and Rescue Services Act 2004 imposes four key responsibilities on Fire and Rescue Services which are: community fire safety, fighting fires, dealing with road traffic accidents and responding to other emergencies.
- 23.22 GAL Emergency Orders. WSFRS are a consultee for the orders. The orders provide the details for specific incident procedures at Gatwick to alert Emergency Services and to co-ordinate the initial response to an incident. Non-sensitive extract: Gatwick Airport Ltd (GAL) are required to plan for Emergency Operations. The GAL Contingency Plan for Emergency Operations (Serial Number GAL/CP/0.3.02.01) covers all areas of responsibility including terminals, runways, taxiways, aprons, roads passenger walkways, grass areas, stands and incidents off Airport. The Emergency Orders is designed to serve as a guide to organisations concerned in emergency action.
- 23.23 WSFRS Community Risk Management Plan (CRMP), is a statutory requirement for all fire and rescue services to produce, which identifies and assesses all foreseeable fire and rescue related risks in its communities and ensures that arrangements are put in place to prevent and respond to these risks.
- 23.24 Fire and Rescue National Framework for England. Every fire and rescue authority must have regard to the Framework in carrying out their functions. The priorities in this Framework are for fire and rescue authorities to:
- Make appropriate provision for fire prevention and protection activities and response to fire and rescue related incidents;
 - Identify and assess the full range of foreseeable fire and rescue related risks their areas face;
 - Collaborate with emergency services and other local and national partners to increase the efficiency and effectiveness of the service they provide; and
 - Be accountable to communities for the service they provide and develop and maintain a workforce that is professional, resilient, skilled, flexible and diverse.

Applicants Approach to Assessment

- 23.25 The legislative framework instructs WSFRS to produce Emergency Response Standards (ERS). These standards provide a target or measure to determine, based on the risk profile, how quickly a fire

appliance(s) will arrive at an emergency incident. Due to the infrastructure complexities forming part of the Project, WSFRS will need to understand potential temporary and permanent changes in attending to emergency incidents at the Airport itself and in its proximity – the traffic management changes to the surrounding road network and arterial routes. To support this assessment, WSFRS has provided the following geographical areas that are of interest and concern if there is an expected increase in travel times between these locations due to the Project:

- Crawley Fire Station (Ifield Avenue, West Green, Crawley, RH10 7AJ) to the proposed rendezvous point North and existing South;
- Crawley Fire Station to South Terminal Landside (Lower Forecourt);
- Crawley Fire Station to North terminal landside (Arrivals Road);
- Crawley Fire Station to Northern Approach. This is the main entrance for emergency vehicles requiring airside access to airport buildings and infrastructure, with the entrance located on Timberham Farm Road;
- Crawley Fire Station to RVP South and North; and
- Crawley Fire Station to Junction 9 (both north and southbound slips) and 9A.

23.26 The Applicant must produce a traffic modelling report based on the above identified locations to reflect the following scenarios:

- Current state from Crawley Fire Station to identified locations.
- Construction state from Crawley Fire Station to identified locations.
- Operational state from Crawley Fire Station to identify locations (consideration here if they are to be relocated)

Construction Phase – impacts

Positive

23.27 No positive impacts have been identified for the construction phase.

Neutral

23.28 Although CBC considers that the risk of an incident is more likely because of the increased aircraft movements and passengers / (construction) staff during the duration of the construction works and thereafter due to the ongoing operational phase of the airport, it's role would remain unchanged in respect to its Emergency Response Planning (providing Rest Centres / Flood Response / Environmental and Port Health activities etc).

Negative

Potential *impact to WSFRS' current and future responses to a range of*

emergency incidents at Gatwick Airport

23.29 The Applicant must assure WSFRS they will consult to fully understand the impact of the construction phase on an emergency response by WSFRS. Details to be considered regarding the Gatwick Emergency Orders, WSFRS' contingency plans and operational procedures for emergency incidents at the Airport. It is acknowledged that under Building Regulations, WSFRS will be a statutory consultee. For example, closure or relocation of emergency rendezvous points (RVPs), closure or relocation of emergency access points, relocation of emergency water supplies (hydrants), changes or relocation infrastructure designed for the use of fire service response and firefighting operations, and closures or changes to the road network that support Gatwick Airport.

Increased likelihood of a terrorist-related incident during the construction phase of the Project, and the impact of an incident of this nature.

23.30 WSFRS recognises that the likelihood of a terrorist incident may not necessarily increase through the Project's construction phase, however, the likelihood of an event of this nature should be continually reviewed and considered throughout the Project. This period could be seen as an opportunistic timeframe by a potential terrorist due to significant changes and potential uncertainty in a joint operational response. Aligned with this, would be an assessment of increasing impact of a terrorist attack or event during construction. WSFRS concerns are associated with the construction phase, where the levels of uncertainty would be elevated.

Potential impact to how quickly and effectively WSFRS will be able to respond to fire and other emergencies at the Airport.

23.31 The Project's description outlines major infrastructure plans and changes that will impact the ability of WSFRS to respond to emergency incidents at Gatwick Airport, both currently and in the future. If the Applicant fails to consider this impact, it could have catastrophic consequences, including loss of life, due to the inadequate consideration of emergency response by WSFRS and other responders.

Operational phase - impacts

Positive

23.32 No positive impacts have been identified for the operational phase.

Neutral

23.33 No neutral impacts have been identified for the operational phase.

Negative

23.34 WSFRS are adapting to the emergence of renewable energy systems and

electric-powered vehicles and aircraft. The construction and operation phases will need to access the potential impacts and downside risks associated with the direction towards Net Zero and sustainability.

- 23.35 Even though WSFRS supports adaptation and government legislation, many risks and hazards are being identified that could endanger firefighters' safety and the public. Therefore, WSFRS would welcome engagement regarding these systems and provisions to obtain an early appreciation of risk whilst offering sector-specific recommendations and guidance.

Required Mitigation

- 23.36 The Applicant needs to plan and prepare for any operational emergencies that may impact WSFRS during all Project phases, as required by statutory duty or legislative compliance. WSFRS requires the Applicant to engage with them throughout this process.
- 23.37 WSFRS requires the Applicant to provide reassurance that it understands the emergency response requirements of WSFRS in attending incidents at Gatwick Airport and in its vicinity. From this, the Applicant also understands the need to liaise with WSFRS at the earliest to enable WSFRS to consider any impact of the Project, aligned with its current emergency response operations and standards. The Applicant must provide specific information on how this assessment and notification process will work.
- 23.38 During the construction phase, there will likely be changes to the current infrastructure design that supports a fire service response and the safe evacuation of the public: emergency access, water provision (fire hydrants), riser inlets, engineered solutions and suppression systems. Any planned change or disruption to these systems must be communicated to WSFRS. The Applicant must provide specific information on how this assessment and notification process will work.
- 23.39 The Applicant must continually assess the risk of a terrorist-related incident at Gatwick during the construction phase with WSFRS and other stakeholders. It must provide timely updates of this assessment to the Resilience Planning Group (RPG) for Gatwick. WSFRS is a stakeholder of this group, which Sussex Police chairs. The group assesses the risks and preparedness aligned to foreseeable emergencies.
- 23.40 The Applicant must provide assurances that they will assess all the risks and hazards emerging from renewable energy sources, and electric vehicles and aircraft. The Applicant must consult with WSFRS through its energy strategy for this Project. WSFRS can then obtain an early appreciation and understanding of systems that may pose a risk to firefighter and public safety. This will allow WSFRS the opportunity to provide sector specific guidance, recommendations and mitigation.

24. Design and Sustainability

Summary

- 24.1 There is no specific chapter within the ES dealing with the broad issue of design, however the Project submission is accompanied by a Design and Access Statement (DAS) (APP-253 to APP-257). This LIR section focusses on the particular design and sustainability elements of the built form within the Project and the adequacy of the DAS. Good design is not simply limited to the physical appearance of the building in its context, but must consider the needs of the building user and the sustainability and performance of the building both in terms of materials, energy efficiency and use of resources as an integral part of the design process. Good design is also an integral consideration for any National Networks NPS road infrastructure application, which also forms part of this Project.
- 24.2 The Applicant is seeking to control design detail in respect of the airfield works through requirement 4 of the draft DCO (dDCO). This requirement states that the development must be in accordance with the design principles – Appendix 1 of the DAS (APP-257) and engineering drawings and sections subject to article 6 (limits of works) shown on the approved works plans (AS-129) unless otherwise agreed by the LPA.
- 24.3 The following critique of the design approach for the Project is provided in addition to the visual impacts considered under the 'Landscape, Townscape and Visual Resources' section of this LIR (Section 8). Also integral to the success of any design, is the integration of landscaping both existing and proposed as part of the Project, details in respect of trees and landscaping are referenced within this section, but covered in detail under the 'Ecology, Nature Conservation and Arboriculture' section of the LIR (Section 9). Matters such as carbon and climate change (beyond the physical built form) are considered in more detail within other Sections 15 and 16 of the LIR.
- 24.4 This section focusses on both the construction and operational elements of the Project (the former considered relevant given the extended duration, up to 14 years, that the construction compounds and their associated infrastructure would be in situ).
- 24.5 The visual impact of all buildings and structures and their durability over time is vitally important. This section looks at the measures to control the quality of design over the Project, bearing in mind the constraints of the DCO process and the information provided by the Applicant.

- 24.6 The level of information currently provided on the proposed plans, together with the current dDCO (AS-004) and the level of detail contained within the control documents (as currently drafted) will not give the Authorities sufficient control over design details and sustainability to ensure a high-quality development is delivered which would be in accordance with adopted national policy guidance and local plan policy.
- 24.7 The Applicant therefore need to provide additional information and reconsider their design approach, in order to establish a suitable framework to ensure there are adequate controls for delivery of the detailed design aspects of the Project.

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Table 24.1 Summary of Impacts – Design and Sustainability					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
24.1A	Lack of control over visual appearance /detailing of development/ lighting	O	Negative	Change –provide a suitably detailed design control document setting clear design principles for the Project as whole but also addressing design controls for specific Works areas to an appropriate level of detail including clear parameter and works plans. Requirement -provision for an independent design review panel to inform the detailed design process for some major elements of the works such as the hangar, hotels and office, decked and multi storey and decked car parks, terminal extensions, CARE building, highway works, to be secured through a DCO Requirement.	ANPS -paragraphs 4.29-4.35 NNNPS – paragraphs 4.28 – 4.35 NPPF Chapter 12 paragraphs 131-140 CBLP policy CH2. mCBLP policies CL2 and CL5
24.1B	Lack of information on visual form of development and relationship with public realm / surroundings	C and O	Negative	Change - a suitably detailed design control document setting clear design principles for the Project as whole but also addressing design controls for specific Works areas to an appropriate level of detail including clear parameter and works plans. Requirement -provision for an independent design review panel to inform the detailed design process for some major elements of the works such as the hangar, hotels and office,	ANPS -paragraphs 4.29-4.35 NNNPS – paragraphs 4.28 – 4.35 NPPF Chapter 12 paragraphs 131-140 CBLP policy CH2. mCBLP policies CL2 and CL5

				decked and multi storey and decked car parks, terminal extensions, CARE building, highway works, to be secured through a DCO Requirement.	
24.1C	Lack of Control over landscaping and level of tree loss	C	Negative	See comments Section 8 Table 8.1B Pentagon Field and 8.1C See comments Section 9 Table 9.1D, 9.1E, 9.1AB, 9.1AC	
24.1D	Lack of control over building performance in terms of sustainability (energy and water efficiency). Currently, the Applicant only proposes to do a cost-benefit study, including an analysis BREEAM.	C and O	Negative	If concluded technically and financially viable in the cost-benefit study, the Authorities expect that the Applicant will implement BREEAM Excellent certification (for water and energy credits) into the Scheme. There are no sustainability standards set out in any of the applicants control documents including either Appendix 1 of the DAS or the CAP – the policy requirements should be set as a minimum standard and there should be flexibility in the document to ensure that sustainability measures meet the current adopted local plan standards for all new buildings and extensions throughout the life of the development.	Policy ENV6 and ENV9 in the CBLP and SDC1 and SDC3 in dCBLP expect new non-domestic buildings to achieve BREEAM Excellent (for water and energy credits) where technically and financially viable.

Policy Context

National Policy Statements

Airports National Policy Statement (ANPS)

- 24.8 In respect of design, the Applicant has acknowledged that the advice in the ANPS paragraphs 4.29-4.35 are of relevance. This guidance emphasises that design is "*an integral consideration from the outset*" (paragraph 4.29) and "*an important and relevant consideration in decision making*" (paragraph 4.32).
- 24.9 Paragraph 4.30 states that "*Applying 'good design' to airports projects should therefore produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, and matched by an appearance that demonstrates good aesthetics as far as possible.*" In addition, paragraph 5.217 in the landscape and visual section of the document acknowledges the importance of appropriate design (including choice of materials), and landscaping schemes as mitigation for the minimisation of adverse landscape and visual effects.
- 24.10 Paragraph 4.33 states "*Professional, independent advice on the design aspects of a proposal should be undertaken to ensure good design principles are embedded into infrastructure proposals*" while paragraph 4.35 requires the Applicant to demonstrate how the design process was conducted and evolved.

National Networks National Policy Statement (NNNPS)

- 24.11 This document is applicable in relation to the design of the national network road infrastructure and paragraphs 4.28 – 4.35 set out the criteria for "good design".
- 24.12 The document highlights the importance of design as an integral consideration from the outset of a Project and states that it is a material consideration in decision making. Paragraph 4.29 that: "*Applying "good design" to national network projects should therefore produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible*".
- 24.13 Paragraph 4.33 states: "*The use of professional, independent advice on the design aspects of a proposal should be considered, to ensure good design principles are embedded into infrastructure proposals*" and continues in paragraph 4.35 by stating that applicants should be able to demonstrate in their application how the design process was conducted and the design evolved.

Other National Policy

National Planning Policy Framework (December 2023) (NPPF)

- 24.14 Chapter 12 'Achieving well-designed and beautiful places' is clear that: *"The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is key aspect of sustainable development, creates better place in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process."* (paragraph 131).
- 24.15 The document encourages planning policies and decisions to ensure developments: function well and add to the quality of the area over the lifetime of the development, are visually attractive (good architecture, layout and appropriate and effective landscaping), are sympathetic to local character (built and natural), establish or maintain a strong sense of place, optimise site development potential and create inclusive safe, inclusive and accessible places (paragraph 135).
- 24.16 The importance and value of trees both existing and newly planted (of appropriate species and location) are specifically referenced to mitigate both climate change and to improve the character and improve quality of the urban environment (paragraph 136).
- 24.17 The document is clear that design quality should be considered through the evolution and assessment of proposals and that applicants should work closely with those affected to evolve designs that take account of the views of the community (paragraph 137). While not specifically referencing DCO projects, the use of design codes is encouraged for the evolution of significant projects to evolve a design and encourage engagement with the local community (paragraph 138).
- 24.18 The document is clear that development that is not well designed should be refused where it fails to reflect local design policies or government guidance (paragraph 139). Furthermore, it advises that LPAS should ensure relevant planning conditions refer to clear and accurate plans which provide visual clarity about the development including the use of materials (to ensure certainty for implementation and establishing any breaches of planning control) and to ensure the quality of development is not materially diminished between permission and completion as a result of changes made (paragraph 140).

Local Plan Policy

Crawley Borough Local Plan 2015-2030 (CBLP)

24.19 In respect of design and sustainability the key policies of relevance are as follows:

Policy CH2 'Principles of Good Urban Design' states:

"To assist in the creation, retention or enhancement of successful places in Crawley, development proposals will be required to:

- respond to and reinforce locally distinctive patterns of development and landscape character and protect and/or enhance heritage assets;*
- create continuous frontages onto streets and spaces enclosed by development which clearly defines private and public areas;*
- create public spaces and routes that are attractive, safe, uncluttered and which work effectively for all in society, including disabled and elderly people;*
- make places that connect with each other and are easy to move through, putting people before traffic and integrating land uses and transport networks;*
- provide recognisable routes, intersections and landmarks to help people find their way around;*
- consider flexible development forms that can respond to changing social, technological and economic conditions; and*
- provide diversity and choice through a mix of compatible developments and uses that work together to create viable places that respond to local needs.*

Applications must include information that demonstrates that these principles would be achieved, or not compromised, through the proposed development."

24.20 Policy CH3 'Normal Requirements of All New Development' states:

"All proposals for development in Crawley will be required to:

- Be based on a thorough understanding of the significance and distinctiveness of the site and its immediate and wider context and demonstrate how attractive or important features which make a positive contribution to the area would be integrated, protected and enhanced. These features include: views, landmarks, footpaths, rights of way, trees, green spaces, hedges, other historic landscape features or nature conservation assets, walls and buildings;*
- Be of high quality in terms of their urban, landscape and architectural design and relate sympathetically to their surroundings in terms of scale, density, height, massing, orientation, views, landscape, layout, details and materials. Proposals must be supported by a future management and maintenance plan for all*

shared hard and soft landscaping, semi public or semi private areas to ensure these areas become well-established. Contributions towards streetscene improvements, public art and CCTV will be sought in accordance with council guidance;

- *Provide or retain a good standard of amenity for all existing and future occupants of land and buildings....., and not cause unreasonable harm to the amenity of the surrounding area by way of overlooking, dominance or overshadowing, traffic generation and general activity, for example noise, smells and/or vibration;*
- *Retain existing individual or groups of trees that contribute positively to the area and allow sufficient space for trees to reach maturity..... Where a development is proposed or where trees would be lost to development, tree planting should accord with the standards set out in Policy CH6;*
- *Demonstrate how "Secure by Design" principles and guidance set out in "Secured by Design" design guide (as amended) have been incorporated into development proposals to reduce crime, the fear of crime, anti-social behaviour and disorder. For all development, the potential impact on community safety must be carefully considered at the earliest opportunity to ensure that measures are integrated into proposals without compromising other objectives.*
- *Meet the requirements necessary for their safe and proper use, in particular with regard to access, circulation and manoeuvring, vehicle and cycle parking, loading and unloading, and the storage and collection of waste/recycling;*
- *Development proposals should comply with any relevant supplementary planning guidance produced by the council."*

24.21 Policy GAT1 'Development of the airport with a single runway' requires that " *(ii) Satisfactory safeguards are in place to mitigate the impact of the operation of the airport on the environment including noise, air quality, flooding, surface access, visual impact and climate change."*

24.22 Policy ENV6 'Sustainable Design and Construction' seeks to work towards the long term aspiration of the Council to be carbon neutral by 2050 but also address the specific spatial characteristics of the borough in regard to energy and water efficiency targets in order to address climate change at a local level. Policy ENV6 requires that "*Proposals for new non-domestic buildings should achieve BREEAM Excellent (for water and energy credits) where technically and financially viable."* All planning applications which involve new buildings, a change of use or refurbished floorspace in excess of 100 sq. m are required to demonstrate through the submission of a Sustainability Statement how the objectives of Policy ENV6 have been addressed through the design and construction process.

24.23 Policy ENV9 'Tackling Water Stress' recognises that Crawley is situated with an area of water stress and that "*development should, therefore,*

plan positively to minimise its impact on water resources and promote water efficiency.” It also requires non residential development to meet BREEAM Excellent including addressing maximum water efficiencies under the mandatory water credits (unless demonstrated unfeasible) and notes that should national standards be increased (or BREEAM replaced) tighter standards will be applied appropriate to the area.

- 24.24 Policy ENV7 ‘District Energy Networks’ (DEN) encourages the provision of DEN and its infrastructure unless it results in significant adverse impacts on its environs. All major development is required to consider connecting to an existing provision (where this in place) or to consider development of its own system, consideration of site wide communal energy systems or ensuring designs are ‘network ready’ to connect to future DEN post construction. This policy must be addressed in the submission of a Sustainability Statement.
- 24.25 Other related CBLP policies for consideration in respect of design aspects include:
- Policy SD1 ‘Presumption in favour of Sustainable development’
 - Policy CH6 ‘Tree Planting and Replacement Standards’
 - Policy CH8 – ‘Important Views’
 - Policy CH9 ‘Development Outside the Built-up area’
 - Policy ENV1 ‘Green Infrastructure’
 - Policy IN1 ‘Infrastructure Provision’
 - Policy IN4 ‘Car and Cycle Parking Standards’

*Crawley Borough Local Plan 2023-2040, Main Modifications Consultation
Draft February 2024 (mCBLP)*

- 24.26 The key policies related to design and sustainability in the mCBLP are set out below, several now carry substantial weight having no modifications. Modifications in the extracts are shown in **bold**.
- 24.27 Strategic Policy CL2 ‘Making Successful Places – Principles of Good Urban Design’ states:
- “To assist in the creation, retention and/or enhancement of successful places, all new development must:*
- i. Meet the design parameters and principles as set out in the National Design Guide (NDG) and National Model Design Code (NMDC), in the absence of locally produced masterplans, design codes or guides.*
 - ii. Demonstrate that new proposals have addressed the following in particular:*
- 1. Existing Character, Design Vision and Opportunities*

All new development must identify, define and be designed so that proposals respect, protect, build upon and enhance the positive aspects of existing character, significance and distinctiveness of both the site and wider area.

*For major applications, proposals must demonstrate and document how the positive and valued components of existing, wider area rural/urban structure have guided and directed the form of new development. Area-based character assessment should, **and for schemes of moderate density and above must,** be used to identify a clear design vision and opportunities available and in turn use these opportunities to define the types of place(s) the proposal aims to achieve. **The Assessment, vision and opportunities should demonstrate** how **the proposal** will contribute to the sustainable development of the area, and how the existing special qualities of an area will be reflected in new proposals, while not preventing or discouraging appropriate innovation or change (such as increased densities).....*

2. Effective Use of Land....

3. Built Form, Layout and Movement

In considering the layout, scale and arrangement of buildings, streets and landscapes, all new development must:

- i. demonstrate how all the components and characteristics of a **well-designed place as set out in the National Model Design Code**, have been considered to create a well-designed proposal;*
- ii. demonstrate how places are experienced (both currently and proposed) including valuable visual connections into, out, through and beyond the site;*
- iii. make connected places that are permeable for people and wildlife;*
- iv. provide recognisable spaces and routes that are attractive, safe, uncluttered and which work effectively for all in society, including disabled and elderly people. Intersections and landmarks should be used and designed to help people find their way around and create places that are legible and easy to read; and*
- v. optimise orientation, solar gain and aspect, for both outdoor space and buildings.*

Major applications must:

- a) ensure the proposed urban structure results in movement paths and corridors which are determined by where people want to go within and beyond the development, taking advantage of direct desire lines as much as possible;
- b) create continuous frontages onto streets and spaces enclosed by development which clearly define private and public areas and ensure streets, footpaths and open spaces are overlooked by buildings; and
- c) ensure movement corridors and the placing of new development take account of long distant vistas, landmarks, views into and out of adjoining areas, gateways to and between particular areas, and focal points.

Major applications should use illustrative tools, such as accurate 3D massing models, to show the basic form of new proposals in relation to their existing setting/surrounding context, particularly from a street level perspective."

24.28 Policy CL5 'Significant Development, Masterplanning and Design Success' seeks the production of a Masterplan for 'significant developments' in addition to the requirements of policy CL2 and indicates that applications for 'particularly significant' schemes may be asked to present to a design review panel. Further clarification of the expected process is set out in a modification to the policy.

24.29 Strategic Policy DD1 'Normal Requirements of All New Development' states that "*Development proposals must use land efficiently and not unduly restrict the development potential of adjoining land, nor prejudice the proper planning and phasing of development over a wider area.* The policy continues that all development will be required to:

"a) Provide or retain a good standard of amenity for all existing and future occupants of land and buildings, and not cause unreasonable harm to the amenity of the surrounding area by way of overlooking, dominance or overshadowing, traffic generation and general activity, for example noise, smells and/or vibration;" and

"d) Include well-located public spaces that support a wide variety of activities and encourage human interaction to promote health, wellbeing, social and civic inclusion...."

"e) Include development form and architectural quality and specification which complements the existing setting and character of the area, especially where buildings are being replaced;"

"f) For large applications, consider flexible development forms that can respond to changing social, technological and economic conditions and provide diversity and choice through a mix of compatible uses that work together to create viable places that respond to local needs;"

"g) Retain existing individual or groups of trees and green infrastructure and biodiversity assets that contribute positively to the area, and

enhance soft landscaping, designing it in as an integral part of the layout. Trees should have sufficient space to reach maturity All development should meet the standards set out in Policy DD4 where trees would be lost to development and all development should meet the Biodiversity Net Gain requirements set out in Policy GI3;"

"h) Demonstrate how "Secure by Design" principles and guidance... have been incorporated into development..... Also, for all development, the potential impact on community safety must be carefully considered at the earliest opportunity to ensure that measures are integrated into proposals without compromising other objectives;"

"i) Meet the requirements necessary for their safe and proper use, in particular with regard to access, circulation and manoeuvring, vehicle and cycle parking, loading and unloading, and the storage and collection of waste/recycling."

- 24.30 Policy DD2 'Inclusive Design' requires all developments to achieve the highest standards of accessible and inclusive design and requiring this issue is addressed with any accompanying Design and Access Statement.
- 24.31 Policy DD5 'Aerodrome Safeguarding' supports development where consistent with the safe operation of Gatwick Airport, the LPA having consulted with the airport operator and or operator of technical sites and where adequate mitigation is not provided development will be refused.
- 24.32 Policy DD6 'Advertisements' – provides guidance on applications for express Advertisement consent listing relevant factors including visual amenity and safety of in respect of highways, railway and aircraft.
- 24.33 Policy EP6 'External Lighting' – requires development to demonstrate how it will minimise light pollution to avoid matters such as glare, unacceptable sky glow and light spillage.
- 24.34 Policy SDC1 'Sustainable Design and Construction' expands and updates the requirements of CBLP policy ENV6 maintaining the BREEAM requirement and certification for non-residential buildings, requiring sustainability statements from applicants which should also demonstrate the consideration of solar pv on buildings.
- 24.35 Policy SDC2 'District Energy Networks' – The development of district energy networks is encouraged and any major development within the borough is required to prepare an energy strategy expanding or connecting to an existing district energy network or incorporating a new system where feasible, or alternatives to incorporate low or zero carbon energy provision.
- 24.36 Policy SDC3 'Tackling Water Stress' expands and updates the requirements of CBLP policy ENV9 requiring non-domestic buildings to

meet the minimum standards for BREEAM excellent within the Water category (unless demonstrated unfeasible).

24.37 As for the CBLP other related policies in the mCBLP for consideration in relation to design aspects include:-

- SD1 'Presumption in Favour of Development'
- SD2 'Enabling Healthy Lifestyles and Wellbeing'
- CL3 'Movement Patterns. Layout and Sustainable Urban Design – with modifications to improve clarity on requirements for active travel.
- CL7 'Important and Valued Landscape and Views'
- CL8 'Development Outside the Built-up Area'
- DD4 'Tree Replacement Standards'
- IN2 'The Location and Provision of New Infrastructure' with modifications referencing the council's Infrastructure Delivery Schedule.
- Strategic Policy GAT1 'Development of the Airport with a Single Runway' with modification only in relation to biodiversity.
- Strategic Policy ST1 'Development and Requirements for Sustainable Transport'
- ST2' Car and Cycle Parking Standards' with modification in relation to electric vehicle charging infrastructure.

The West Sussex Waste Local Plan (April 2014)

24.38 The following policies are relevant in relation to the proposed CARE facility. The following Strategic Objectives are relevant to the Project:

Strategic Objective 13: *"To protect and, where possible, enhance the health and amenity of residents, businesses, and visitors".*

Strategic Objective 14: *"To minimise carbon emissions and to adapt to, and to mitigate the potential adverse impacts of, climate change."*

24.39 Policy W12, High Quality Waste Developments, states that:

"Proposals for waste development will be permitted provided that they are of high quality and, where appropriate, the scale, form, and design (including landscaping) take into account the need to:

(a) integrate with and, where possible, enhance adjoining land-uses and minimise potential conflicts between land-uses and activities;

(b) have regard to the local context including:

(i) the varied traditions and character of the different parts of West Sussex;

(ii) the characteristics of the site in terms of topography, and natural and man-made features;

(iii) the topography, landscape, townscape, streetscape and skyline of the surrounding area;

(iv) views into and out of the site; and

(v) the use of materials and building styles;
(c) includes measures to maximise water efficiency;
(d) include measures to minimise greenhouse gas emissions, to minimise the use of non-renewable energy, and to maximise the use of lower-carbon energy generation (including heat recovery and the recovery of energy from gas); and
(e) include measures to ensure resilience and enable adaptation to a changing climate."

24.40 Policy W19 'Public Health and Amenity', states that, "Proposals for waste development will be permitted provided that;

1. lighting, noise, dust, odours and other emissions, including those arising from traffic, are controlled to the extent that there will not be an unacceptable impact on public health and amenity;
2. the routes and amenities of public rights of way are safeguarded, or where temporary or permanent re-routeing can be justified, replacement routes of comparable or enhanced amenity value are provided; and
3. where necessary, a site liaison group is established by the operator to address issues arising from the operation of a major waste management site or facility."

24.41 Policy W23 'Waste Management within Development', states that, "Proposals for development will be permitted provided that;

- a. the waste generating during construction, demolition and excavation is minimised and that opportunities for re-using and recycling of waste are minimised; and
- b. waste management facilities of an appropriate type and scale are an integral part of the development."

Other Relevant Local Policy

The Crawley Borough Urban Design Supplementary Planning Document 2016 (UDSPD)

24.42 This provides further advice and explanation on the principles of good urban design within the context of the character of Crawley borough supplementing policies including CH2 and CH3.

The Crawley Borough Planning Climate Change Supplementary Planning Document 2016 (PCCSPD)

24.43 This provides further advice on how development should be designed to comply with policies to address climate change and is relevant to accompany policies CH3, ENV6, ENV7 and ENV9 quoted above.

*The Crawley Borough Green Infrastructure Supplementary Planning Document
October 2016 (GISPD)*

24.44 This document deals with landscape matters as is quoted more extensively under sections 9 and 11 in this LIR.

High Quality Waste Facilities Supplementary Planning Document (2006)

24.45 This WSCC document referenced within the supporting text of Policy W12 above, provides guidance about the design and layout of waste management facilities.

Applicant's Approach to the Assessment

Advice

24.46 The Applicant has provided the Authorities with very limited information on the design evolution for this Project and in particular the design principles. An early (very) draft version of the DAS was shared at a TWG meeting on 23rd November 2022. The Authorities highlighted at that meeting the importance of establishing (and evidencing) clear design principles as a basis for good design. It was also raised that the Applicant did not propose to get the document reviewed by a competent design panel and the Authorities highlighted the value that independent scrutiny of the DAS would give stakeholders. The document tabled was in a very schematic state with a broad structure but no real detail that could be critiqued. The Authorities raised concerns about the intended level of detail and the need for further information. The Authorities were next sighted on the DAS document in early July 23 (just a few weeks prior to submission) with no opportunity at such a late stage to influence the structure or content of the document.

24.47 As a consequence, there has been little meaningful engagement on this document, produced by the Applicant without any design scrutiny or input from stakeholders, contrary to the guidance set out in paragraph 4.33 of the NNNPS, paragraph 4.33 in the ANPS, paragraphs 137 and 138 of the NPPF and policies CL2 and CL5 in the mCBLP.

Structure and Content of the DAS

24.48 The Authorities consider that the DAS document is insufficiently detailed and note that in addition, the majority of its contents are badged as 'indicative'. While it is understood that the Applicants wish to ensure flexibility in the Project design, there are key aspects of the Project where further detail is needed for the Authorities to ensure the visual impacts would be acceptable or could be adequately controlled through the DCO.

24.49 The Authorities are concerned that just 10 pages of written text in Appendix 1 (APP 257) is intended to be secured as the design control

document and that what is provided within this section will not currently secure a high quality development. The wording of the design principles is ambiguous and don't allow for tight enough controls. This point was highlighted at Issue Specific Hearing 2 and the Authorities support the ExA remarks that far more detail should be within the DCO and control documents. The current details provide the Applicant with a high degree of flexibility and design principles which are too broad based to effectively control the development detail.

- 24.50 Furthermore, some statements within the control document at present appear to conflict with each other and combined with the loose wording in the dDCO leaves the Project wide open to interpretation in respect of visual appearance and detail.
- 24.51 The Authorities agreed with the Applicants' approach to describing the project site as set out in the DAS in the eight, broadly defined airport 'character areas'. There has clearly been a lot of evidence gathering in Volume 1 of the DAS (APP-253) on site constraints, but it is not considered that this information has been well interpreted or applied to the analysis and information presented in the airport 'character zones' (Volumes 2-4 APP-254/255 and 256). The Authorities are disappointed about the lack of detail that has been incorporated into these sections and of particular concern is the lack of analysis of the land around the edge of the DCO Limits, its character, use and analysis of adjacent site constraints.
- 24.52 The Authorities consider that the key problem with the design information in the DAS and its control document as presented is that it fails to draw on or connect any 'character area' analysis with the proposed design approach for the proposed built forms within the DCO Limits.
- 24.53 Any design principles and contextual analysis from those character areas has not been interpreted or expressed in the site wide design guidance or in Appendix 1 of the DAS (APP-257) instead adopting the approach of grouping development under building and structure types rather than considering the appropriateness of the design and visual impact of the works based on the analysis of the unique site location on which each of the works are proposed to be situated.
- 24.54 The key areas of concern in respect to design are summarised as follows:
- Lack of detail in the proposed works plans and control documents provided to secure design quality - The practical difficulties of interpreting the document from a design and sustainability perspective are set out later as examples later in this section (see hangar paragraphs 24.68 to 24.72).

- Lack of detail to address site context and constraints for some works as the design guidance in particular Appendix 1 (the control document) does not provide design principles which provide enough control over works on the site. An example of this point is set out later in this section (see Car Park X - paragraphs 24.64-24.67).
- Building quality in the public realm - There is no commitment to good design quality or striving for exemplar design as part of this Project. Good design quality is a repeated requirement throughout both national and local planning policy referenced at paragraph 4.30 in ANPS, paragraph 4.29 in NNNPS, paragraph 131 in NPPF, policy CH2 in CBLP and policy CL2 in the mCBLP.
- Materials and detailing -Insufficient detail is provided on visual appearance (materials and finish) of the buildings and to ensure visual quality and prevent visual harm.
- Lack of controls over landscaping and in particular the level of tree loss.
- Lack of mechanism to ensure that some design details are secured in perpetuity where required. Section 4 of the LIR (paragraph 4.18) sets out examples where planning conditions have been applied to safeguard the design and appearance of buildings. While a design may meet the requirements when constructed, the Applicants have not considered if any mechanism is needed to ensure that important design details are controlled in the longer term.
- The issue of addressing sustainability through good design is briefly covered within the DAS (APP-257) signposting to other documents such as the Carbon Action Plan (CAP) (APP-091), the Applicant's own 'Second decade of change' document and sets out some loosely worded sustainability targets. It is disappointing that the document fails to acknowledge the Authorities' sustainability policies in particular those in the CBLP.

Construction Phase – impacts

Positive

24.55 There are no positive design or sustainability impacts in the construction phase.

Neutral

24.56 There are no neutral design or sustainability impacts in the construction phase.

Negative

24.57 There are the following negative impacts during the construction phase:

- Appearance of substantial construction compounds, security lighting etc. during the 14-year construction phase. (These concerns are set out in more detail in Section 8 paragraphs 24.37).

- Impact of earthworks such as at Pentagon Field and Museum Field (see Section 8 paragraphs 8.38-8.40); and,
- Temporary loss of screening from the extensive tree removal in particular the highway works. (see Section 8 paragraph 8.43)

Operational phase - impacts

Positive

24.58 There are no positive design and sustainability impacts in the operational phase.

Neutral

24.59 There are no neutral identified design or sustainability impacts in the operation phase.

Negative

Lack of contextual analysis in the DAS to inform the design

24.60 This point is best illustrated through a more detailed example, the Southern Zone (APP-253). The contextual site analysis for this area fails to identify a number of sensitive features bounding this land to the south which should inform the design. While the airfield runways are clearly to the north, there is no commentary on the varied characteristics of the land immediately bounding this area to the south. In the southwest part of the site are important landscape features such as woodland and hedges (both within the site and along the Charlwood Road edge) which not reflected on the site constraints map and are completely ignored in respect of the area labelled for Car Park X. The fact that the majority of the land south Charlwood Road is open countryside and fields is not referenced and neither is the fact that on the southern side of this road are sensitive uses such as residential homes (including some listed buildings).

24.61 The southeast end of the site aligns around the A23 dual carriageway to the east (with an employment area beyond) and then travelling westwards extends to the north of the Lowfield Heath employment area which is an area of predominantly low level employment buildings interspersed with other uses including a Grade II* listed place of worship (St Michael and All Angels Church), a hotel and 2 immigration removal centres (Brook House and Tinsley House). These occupiers and uses also need to be considered within the design process.

24.62 The Authorities are concerned that the DAS identifies only airfield constraints as matters for design and layout and therefore has failed to consider neighbouring uses beyond the DCO Limits. While it is accepted that some elements of the Project have no fully worked up design, and are more outline in nature, the DAS and supporting information is

lacking in terms of basic site survey information (including any clear existing survey plans) and is too schematic to demonstrate that it has appropriately considered the design impacts of some of the proposed developments on the surroundings. This conclusion is also applicable to zone 6 (transport corridor) and zone 8 (eastern zone).

- 24.63 The Authorities understand the Applicant's need for flexibility for certain design elements of the Project, however, the current level of detail gives too much flexibility and the need for stronger contextual analysis to inform the design approach and additional detail in the form of written and illustrative guidance should be addressed.

Lack of design detail to address site context

- 24.64 To illustrate this point, a detailed example of Car Park X is provided below to demonstrate the inadequacy of the information provided.
- 24.65 Car Park X is an existing surface car park which the Project proposes to use for deck and surface parking and a flood storage area (Works No 31). From the DAS (APP -254) the design of this car park's structure is unclear from Figure 14 and looks inconsistent in floorplan with Figure 12 (page 13). The parameter plan (As-131 page 12) shows a potential structure up to 11m over a much larger area than is shown in the DAS. It is assumed that the overall height on the parameter plans includes any top deck lighting columns for the car park, although this is not clearly stated. If this is not the case, this could add several more metres onto the structure and increasing its visual impact. There is also concern that the parameter plan for the site does not show either the existing ground level around the site (beyond the DCO Limits) or indicate the depth of the flood storage structure being excavated and potential design impact relative to the road.
- 24.66 It is considered that there would be visual harm from this car park based on the limited information provided and the lack of understanding / analysis of the site such as whether the tree boundary and landscaping along the southern boundary which provides an effective screen to the current surface car park would be retained. There is no comfort in this section of the DAS, or in section 6.12.4 'Car Parks'(APP-257) or in the proposed control document (Appendix 1 – APP-257) that the car park would be visually compatible with the street scene. In paragraph 6.12.4 (APP-257) the document discusses appropriate car park design standards and confuses design guidance between 'Decked parking and Multi Storey car parking'. It would appear this structure could be an open construction with a metal frame, with a clearly visible entrance (onto the Charlwood Road) and tall lighting columns on the top deck.
- 24.67 Notwithstanding the above, it is also noted that the Applicant states consistently throughout the Issues Tracker/ Statement of Common

Ground (SoCG) responses and the Project documentation, that the DAS is 'indicative' suggesting they wish for little, if any, weight to be afforded to it. The proposed control document (Appendix 1 – APP-257) provides little comfort on the design quality of either the decked component of the car park, the surface car parking element or the drainage works.

Materials, detailing and lighting: Proposed Hangar and the current Boeing Hanger

- 24.68 This point is considered is best illustrated through a detailed example, in this case the proposed new hangar Work No 16. There is considered to be a lack of information and control over design and appearance of the building. The relevant design principles are listed as DFB29 and DFB30 (read alongside generic BF1, BF2 and BF3) in DAS Appendix 1 (APP-257). There are no controls over details which are considered crucial to a building of this scale such as ensuring the materials would blend into its surroundings (not contrast with them or would be visually prominent) and would not result in excessive glare or reflection of roof or walls from cladding or pv. The guidance is also silent about quality of materials or finishes. While there are some lighting criteria listed in the DAS Appendix 1 these are general and not use or building specific. It is considered that any guidance on level of illumination appropriate for such a facility must be known and should be provided now for consideration as part of the DCO. The guidance needs to be detailed to reflect its local context which in this case would be near a pond and an ecologically sensitive area to the west/ northwest.
- 24.69 The Boeing Hangar permitted in October 2017 (CR/2017/0116/FUL) <https://planningregister.crawley.gov.uk/Planning/Display/CR/2017/0116/FUL> was subject to a full planning application and notwithstanding the detailed designs supplied, additional controls were still needed following receipt of consultee comments to safeguard matters such as design detail, lighting, design and positioning of pv panels, a bird hazard management plan and controls to subsequent alterations of the roof and minor extensions. It is considered the level of design complexity and detail to be considered and controlled for a new hangar building has been considerably understated by the Applicant and the Boeing hangar serves as a representative case example in a broadly comparable location.
- 24.70 The over simplified DAS would not provide any of these safeguards and is so loosely worded and ambiguous allowing such a wide interpretation there is considered to be no meaningful control over the design and appearance of this building.
- 24.71 This is a concern not only for the appearance of any building as constructed but also in respect of any subsequent modifications particularly to the roof which could impact visually on the wider area or

operationally (safeguarding/navigation) raised by statutory consultees engaged in the traditional planning application process.

24.72 All the proposed large scale buildings within the DCO limits raise the same or similar design issues as raised by the hangar. These comments are therefore equally valid in respect of the proposed hotels, offices, Terminal extensions, decked car parks, maintenance building and CARE facility.

Lack of design details for works in general

24.73 As the examples set out above have illustrated the Authorities have significant concerns about the level of detail presented in the DAS for all aspects of the Project. Other works areas of particular concern are:

- Works No 32 – Decked car park – design and appearance given lack information on building height and lighting atop. The relative effectiveness of tree screening to hide the structure and impact from structure in terms of lighting are matters that should be addressed.
- Works No 9 - Central Area Recycling Centre (CARE) facility - the DAS sets out key considerations (Volume 5 APP-257, paras 6.12.5.1–6.12.5.6), and design principles (DBF26, Volume 5, Appendix 1) for the design of the CARE facility, the information is high-level and limited. The design principles for the CARE facility do not provide further detail on how the building will be designed to limit the impacts associated with operating waste facilities, including, but not limited to, noise, dust, odour, vermin etc, and as required by the Airports NPS (paragraph 4.70). Comprehensive mitigation measures are not set out that seek to reduce adverse impacts of the CARE facility (Airports NPS, paragraph 5.143).
- New build hotels and office – control over the design and appearance of these and the design approach for the public realm serving these buildings
- Design and appearance of Car Park y (Works 30)
- Visual impact of highway works
- Lack of detail on revised Purple Parking layout (Works 33)
- The lack of information on the design and appearance of Pentagon Field (Works 41)
- The visual impact of the alterations to the Terminal Buildings
- The lack of detail on the construction details for areas of hardstanding including runways, aprons.
- The lack of detail on the design and appearance of proposed western bund and drainage features.

Lack of controls over landscaping and level of tree loss

24.74 The Authorities are concerned about the potential negative visual impact of tree loss from the following works sites. The works plans show a maximum works area and the parameter plans (where provided) propose a maximum height being sought. Other than for the highway works, there are no tree survey plans and there are particular concerns about the loss of visual screening which could result in the development having a negative impact on visual amenities of the area due to reduced tree screening. The key locations of most concern are as follows:

- Car Park X (Works Area 31)
- Purple Parking remodelling (Works Area 33)
- Works Area 32 (the extent to which the tree loss may make this structure visible given its open design)
- Works Area 30 (shown on the highway works plans but given the maximum extent of the building parameters and extent of works area could impact upon tree cover).

24.75 These points above should be read in conjunction with the commentary on trees and landscaping in Sections 8 and 9 of the LIR.

Sustainability:

24.76 Energy –The Authorities consider there need to be some fixed standards applicable to all new buildings and floorspace in order to ensure the development is policy compliant and at least meets the energy efficiency standards expected of all new buildings constructed across the rest of Crawley Borough.

24.77 District Energy Network – It is unclear how the applicant is seeking to address this policy within the project submission. There appears to be no information provided that specifically addresses this requirement and the policy is not referred to at all in the DCO submission documents. CBLP policy ENV7 and mCBLP policy SDC2 was seemingly addressed with the originally proposed CARE facility building which proposed 2 biomass boilers. However, the proposed project change 2 could cause a direct policy conflict if the biomass boilers are removed. The Authorities will comment further on this if the Change proposal is accepted.

24.78 Water efficiency - Gatwick airport is located within an area of water stress however the Applicant has committed to no water use targets for the Project, and there is a failure to set out clearly any water standard is considered to have negative impact on already scarce water resources. In an area of water stress, the Applicant should set itself a clearly defined and measurable target for water efficiency (at the very minimum in line with adopted CBLP policy ENV9 and mCBLP policy SDC3). The Authorities consider there need to be some fixed standards applicable to all new buildings and floorspace in order to ensure the development is policy compliant and at least meets the water efficiency standards

expected of all new buildings constructed across the rest of Crawley Borough.

Required Mitigation

- 24.79 The Authorities require that the design control document (Appendix 1 of the DAS) is comprehensively expanded to provide additional detail and design certainty in respect of all the Project works. This should include the provision of a clear unambiguous set of design principles to inform the Project as whole and should address national and local design and sustainability policy guidance. The document should then provide site specific design principles for the Works based not just on building type but on the contextual analysis of the site building upon the overarching design principles for the project as a whole. Clearer parameter and works plans should be provided with additional detail agreed where appropriate for some Works sites.
- 24.80 As stated, the Authorities consider that there are insufficient controls in the documents and remain very concerned that the DAS designs have been worked up without any stakeholder engagement (contrary to national and local policy design guidance). Without this independent review there is little confidence that detailed Works designs can deliver good policy compliant buildings and infrastructure given that the DCO process only allows further information to be agreed by discharge of a DCO Requirement. Therefore, the Authorities also consider it necessary that a process is put in place for a more rigorous independent design review to inform the design of key works components such are the larger airfield buildings and highway infrastructure.
- 24.81 The Authorities note the recent approach proposed in the Luton DCO design principles document (REP9-030) which it considers could provide a helpful framework to develop the design details and design quality for the Applicants proposal. This includes an independent design review for various scheme elements and design review workshops to allow for increased stakeholder involvement in the design process.
- 24.82 The Authorities note that several other DCOs include provision for a design review process, including: A14 Cambridge to Huntingdon Improvement Scheme Development Consent Order 2016 (Requirement 3(3)), Silvertown Tunnel Order 2018 (Requirement 3), and A57 Link Roads Development Consent Order 2022 (Requirement 3(3)). Moreover, the A66 Northern Trans-Pennine Development Consent Order 2024 requires the Secretary of State to approve the external design and appearance of certain viaducts (article 54(8)) and the design of a new realigned single carriageway road (article 54(9)). It is therefore precedent for bodies other than the undertaker to have an important role in determining the design of an NSIP.

- 24.83 Policies ENV6 and ENV9 in the CBLP, and SDC1 and SDC3 in the mCBLP expects new non-domestic buildings or extensions where over 100 sq m of floorspace is to be created to achieve BREEAM Excellent (for water and energy credits) where they are technically and financially viable. Currently, the Applicant only proposes to do a cost-benefit study, including an analysis of BREEAM. If concluded technically and financially viable from this assessment, the Authorities expect the Applicant to provide BREEAM Excellent certification (for water and energy credits) for all new buildings or extensions in excess of 100 sqm forming part of the Project works.

Requirements and obligations

- 24.84 The Authorities wish to secure the provision of a suitably detailed design control document setting clear design principles for the Project as a whole, but also addressing design controls for specific Works areas to an appropriate level of detail including clear parameter and works plans.
- 24.85 In addition to a more detailed control document, the Authorities consider that, given the limited stakeholder input in the detailed design process to date, the provision for an independent design review panel to inform the detailed design process for some elements of the works should be included. Furthermore, as part of that process, the Applicants should explain how the outputs of this process has been taken into account in the design presented for approval as part of DCO Requirement 4 (detailed design) or Requirement 5 (local highway works).