SURREY COUNTY COUNCIL, MOLE VALLEY DISTRICT COUNCIL, REIGATE AND BANSTEAD BOROUGH COUNCIL AND TANDRIDGE DISTRICT COUNCIL JOINT LOCAL IMPACT REPORT (LIR)

GATWICK AIRPORT NORTHERN RUNWAY PROJECT (NRP)

Planning Inspectorate's Reference TR020005

Local Authority URN's

Mole Valley District Council Reigate and Banstead Borough Council Surrey County Council Tandridge District Council 20044578 20044474

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1. Introduction to the Report and Terms of Reference

- 1.1 This Local Impact Report (LIR) has been jointly prepared by the four Surrey host local authorities, Surrey County Council (SCC), Mole Valley District Council (MVDC), Reigate and Banstead Borough Council (R&BBC) and Tandridge District Council (TDC) the "Joint Surrey Councils" (JSCs). This submission forms part of the local authorities' response to the Gatwick Northern Runway Project (NRP). Unless otherwise stated, the comments in this report reflect the views of the JSCs. Relevant Representations have been separately prepared and individually submitted, and where necessary have been referenced in this LIR. Comments made are without prejudice in relation to any individual issues of the JSCs, who may raise these in their Statement of Common Ground or other representations.
- 1.2 The northern section of the scheme falls within the administrative area of the JSCs. 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 all four authorities. All four authorities are therefore host authorities under the Planning Act 2008. SCC is the upper-tier authority for the county of Surrey and holds a range of statutory responsibilities of relevance to the scheme. These include Local Highway Authority, the Minerals and Waste Planning Authority, Lead Local Flood Authority and Public Health Authority. SCC also holds responsibility for maintaining the Rights of Way Definitive Map and the Historic Environment Record. MVDC, R&BBC and TDC are Local Planning Authorities and hold statutory responsibilities relating to environmental health. SCC and R&BBC are also impacted landowners in relation to the scheme.
- 1.3 The JSCs are of the view that a joint LIR best provides a comprehensive assessment of the impact of the scheme for areas within Surrey, whilst also avoiding repetition in submissions. Where applicable, the lead authority for a subject area is identified within the document.
- 1.4 There is a long history of joint working across the wider grouping of Gatwick authorities and use has been made of these existing structures for the local authorities to work collaboratively in responding to Gatwick Airport Limited's (GAL) proposals. The West Sussex authorities are also producing a joint LIR and both documents have been structured in a similar manner to enable the Examining Authority (ExA) to easily identify common themes and requests.
- 1.5 The JSCs have had regard to the purpose of LIRs as set out in s60(3) of the Planning Act (as amended), DCLG's "Guidance for the examination of applications for development consent" and the Planning Inspectorate's Advice Note One "Local Impact Reports", in preparing this LIR.
- 1.6 The JSCs have actively engaged with the Applicant during the pre-application period, both jointly and independently and have responded to all previous consultations with comments and concerns. Although a Planning Performance Agreement (PPA) has been agreed between Gatwick and the wider Gatwick authorities grouping, the Gatwick authorities are disappointed that funding has been insufficient to enable the proposals to be fully assessed and has meant limited capacity and ability to fully assess proposals. Despite this, considerable local authority time and resources have been invested in providing

constructive input to the scheme design with the aim of developing a scheme that better addresses environmental impacts and seeks to minimise impacts on local communities.

- 1.7 The Applicant has addressed some concerns through the process to date and the extent of agreement reached with the Applicant will be set out in the Statements of Common Ground (SoCGs) currently being produced. Inevitably, several points in this LIR are repeated from the Local Authorities' respective Relevant Representations and Principal Areas of Disagreement Summary Statements (PADSS). However, given the importance afforded to the LIR in the Planning Act, the JSCs are keen to restate key issues within this submission where it is beneficial to do so.
- 1.8 The JSCs recognise the importance of Gatwick Airport's role in supporting employment for Surrey residents and generating investment in Surrey's economy. However, the JSCs are firmly of the view that any economic and strategic benefits do not override other considerations. It is not currently demonstrated to the JSCs' satisfaction that any benefits would be sufficient to outweigh the adverse impacts of the NRP, not least because of shortcomings in the assessments undertaken by the Applicant. Were the Secretary of State, assuming these shortcomings could be resolved during the course of the Examination, to authorise a DCO for the NRP then the environmental, surface access and other infrastructure issues associated with the expansion must be satisfactorily addressed. The necessary infrastructure should be in place before use of the northern runway begins, together with appropriate mitigation measures, controls and commitments to address environmental impacts, particularly noise and air pollution and the negative effects on local communities arising from construction and airport operations.
- 1.9 A number of substantive issues remain. The primary purpose of this LIR is therefore to evidence the key issues for the JSCs and their respective communities and to constructively identify where further information and proposals are needed, both to ensure proposals are consistent with policy and to ensure that the adverse local impacts of the DCO scheme are adequately mitigated. The JSCs will continue to engage positively with the Applicant during the examination process.

S106

- 1.10 At the first round of Issue Specific Hearings there was frequent reference to the existing S106 Agreement (Annex A of AS-115) and the JSCs would like to provide further detail on this document. 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 and West Sussex County Council. This is not linked to any previous planning permission for any specific development, rather it is, and has always been a voluntary agreement on the part of the Airport. The current Agreement (2022) 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. The Surrey authorities are named as neighbouring authorities in this document, and it includes details on arrangements for specific payments to Reigate and Banstead Borough Council for air quality monitoring purposes.
- 1.11 The S106 has been rolled forward three times, most recently in 2022 in anticipation of the examination of the DCO scheme and the associated new for a full review of obligations. It

is important to highlight that the authorities are anticipating a full "reset" of the existing S106, rather than just simply a continuation of elements and approaches currently contained. 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. The existing document has not been comprehensively reviewed since 2008 and the light touch reviews (and rolling-forward) of previous Agreements were agreed by the authorities as pragmatic responses to 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.

1.12 Although there are obligations which the wider Gatwick Authorities hope to be continued in the new Agreement, there are further 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. Further discussion is also required with the Applicant around the parties that should be signatories to a new S106 Agreement.

Document Structure: Impacts by Issue

- 1.13 The remaining sections of this LIR have been structured to follow the themes of the Applicant's Environmental Statement (ES) but do not seek to repeat the content. Instead, it is used to highlight key local characteristics that have informed our assessment of impacts.
- 1.14 Each theme-base chapter sets out the local impacts within the county, both during construction and operation of the scheme. Each chapter recognises the impacts already identified by the Applicant, sets context where relevant and highlights particular concerns of the JSCs and identifies areas where the Applicant has not given issues the weight they require.
- 1.15 The impacts are categorised as either positive, neutral or negative. Suggestions are made for opportunities for the Applicant to further enhance positive impacts or reduce negative impacts. Where negative impacts are identified the JSCs have identified mitigation options or DCO amendments that they consider are required in order for the adverse effects of the proposed scheme to be mitigated.
- 1.16 The JSCs note that the Applicant submitted a change application on 13th February 2024. As this has not been accepted by the ExA (at the time of writing this LIR), the JSCs do not address the application in the LIR. The JSCs will respond to the change application in the usual way and if necessary, after the consultation, will produce a supplementary section to the LIR in order to address the change application.
- 1.17 For a number of topics additional documents and information sources have been referenced. These have not been submitted to the examination but the JSCs are able to submit if required.
- 1.18 Furthermore, and for the benefit of succinctness, it has been necessary in some cases, to append additional technical information to this LIR which supports the content of relevant sections, including:

- Appendix A High Court Decision EFW Group Limited Claimant V's Secretary of State for Business, Energy and Industrial Strategy (CO/1160/2021)
- Appendix B Need Case
- Appendix C Noise and Vibration District and Borough Profiles
- Appendix D Horley Strategic Economic and Market Assessment Update

2. Characteristics of the local area

Description of Proposals

- 2.1 Gatwick Airport (as distinct from the Order Limits) is located in the administrative area of Crawley Borough Council, adjacent to the Surrey boundaries of Mole Valley district to the northwest and Reigate and Banstead borough to the northeast. The Surrey district of Tandridge is located approximately 1.9km to the east of the airport. Transport links into Surrey are primarily via the M23/A23 corridor and the London to Brighton mainline rail services.
- 2.2 This LIR relies on the Applicant's full description of the scheme as set out in the DCO submission documentation. The summarised scheme components can be detailed as follows:
 - Alterations to the existing northern runway, including repositioning its centreline 12 metres further north to enable dual runway operations
 - Reconfiguration of taxiways
 - Pier and stand amendments (including a proposed new pier)
 - Reconfiguration of other existing airfield facilities
 - Extension to North and South Terminals
 - Provision of additional hotels and commercial space
 - Provision of reconfigured car parking, including new surface and multi-storey car parks
 - Surface access (highway) improvements
 - Reconfiguration of existing utilities, including surface water, foul drainage and power
 - Landscape/ecological planting and environmental mitigation
- 2.3 Specific scheme elements that fall within Surrey include:
 - Work to the National Highways Strategic Road network within Surrey
 - Works to the Local Road Network within Reigate and Banstead, including work on SCC structures
 - Associated highway drainage works
 - Temporary use of land as construction compounds
 - Delivery of environmental mitigation areas
 - Active travel enhancements
 - Air quality monitoring
 - Noise mitigation measures
 - Temporary Rights of Way closures and diversions
 - Flood measures and works to the River Mole corridor
 - Works at Riverside Garden Park

Natural and Built Environment

- 2.4 The Surrey county boundary lies to the north of Gatwick Airport. The built-up area of Horley and the settlement of Hookwood border Gatwick Airport to the north-east and north and the village of Charlwood is situated to the north-west. Outside of the settlement areas, much of the Surrey landscape bordering the scheme is predominantly rural, characterised as Low Weald farmland. The landscape typically includes well-developed hedgerow networks and shaws and is crossed by a network of watercourses and brooks feeding into the River Eden and Mole.
- 2.5 In terms of cultural heritage, to the northeast of Longbridge Roundabout on the A23 is the 14th Century Statutory Listed Grade 1 Church of St Bartholomew and the Grade 2 former ecclesiastical building currently known as Ye Olde Six Bells Public House both located in Church Road, Horley. The listed buildings are separated from Longbridge roundabout and the River Mole by Church Meadows, a traditional water meadow. This area was the original centre of Horley or Horley Street, when it was a trading post on the River Mole. The current centre of Horley grew up following the arrival of the railway in the mid-19th century.
- 2.6 The Surrey Hills National Landscape (formerly identified until 22 November 2023 as an Area of Outstanding Natural Beauty (AONB)) is a nationally important landscape which principally covers part of the North Downs and Greensand Ridge in Surrey and extends across the county including through Mole Valley, Reigate and Banstead and Tandridge. Gatwick is visible along much of the south facing ridge of the North Downs to Leith Hill in the west c8 –12 kms. Parts of the Surrey Hills National Landscape at Dorking, Reigate and Redhill are located within the wider study area for overflying aircraft.
- 2.7 It should be noted that the Surrey Hills National Landscape is currently undergoing a boundary review and between 7th March and 13th June 2023, the Department for the Environment Food and Rural Affairs / Natural England undertook a public consultation to extend the National Landscape Boundary. The outcomes from the consultation will be better understood in early 2024 when the proposals will either be sent to the Secretary of State for Environment, Food and Rural Affairs for consideration, or a further consultation will be undertaken to consider additional changes.

Traffic and Transport

- 2.8 Gatwick Airport is primarily accessed from the national strategic road network via the M23 motorway, which runs from M25 junction 7 in Reigate to the M23 spur road which leads to the airport. Secondary routes to the airport via the A22, A23, A24, A217 and the associated rural road network are also frequently used to avoid the more congested primary routes.
- 2.9 Due to the significance of the M25 in enabling access to the airport, the A22 and A24 are often utilised when issues on the M25 occur in either direction of junction 7. In these instances, diversions direct traffic onto the wider 'A-road' network and subsequently onto more rural roads in the south of both Mole Valley and Tandridge districts, linking them to the airport networks.
- 2.10 The A23, which runs parallel to the M23, links to Croydon north of the M25, running through Horley, Salfords, Redhill and Merstham in the borough of Reigate and Banstead.

To the west of the A23 Brighton Road is the north south A217, which runs from Charlwood to Reigate and north to M25 junction 8 and south London.

- 2.11 The A23 and A217 suffer from traffic congestion at peak periods, especially at junctions close to Gatwick Airport and at Redhill (A23) and Reigate (A217). An AQMA has been declared in Horley which covers part of the A23 and junction with Massetts Road.
- 2.12 The London Brighton Main Line, with services operated by Govia Thameslink Railway (GTR), travels south from various London stations, via East Croydon to the recently renovated Gatwick station. Whilst many services on the line are fast through Reigate and Banstead, there are some stopping services at Horley, Salfords, Redhill and Merstham.
- 2.13 In addition to the north south London Brighton services, there are Great Western Railway services running west to east between Reading and Gatwick stopping at Guildford, Dorking, Reigate, Redhill and Gatwick. As of December 2023, this is a half hourly service starting from c5.30am to 12.30 am. One of the key issues with this line is the number of level crossings which has a detrimental impact on the local road network when the barriers are down including on the A217 running through Reigate. Between Redhill and Tonbridge there is a further west-east service, which used to extend to Gatwick. Proposals to increase the frequency of the service have recently been tested by Network Rail and have been found unviable.
- 2.14 There are a number of existing bus services that serve Gatwick and Surrey including the Metrobus 400, 420, 100 Fastway, 22, 20 and 460. However, while there are several services, some areas are served better and more frequently than others in terms of accessing Gatwick. Some services provide less than one bus per hour (No. 22).

Noise Environment and Air Quality

- 2.15 Communities especially in the south and wider southern half of Mole Valley are currently affected by operational aircraft noise from westerly departures (mostly Route 4) and easterly arrivals. Charlwood and areas 1-2km west of the airport boundary are particularly affected by the noise generated by aircraft leaving the end of the runway.
- 2.16 Reigate and Banstead is currently affected by air, ground and airport related traffic primarily in the south of the borough and especially in Horley. Elsewhere in the borough, residents under and in the vicinity of Route 4 and Route 3 departure routes are heavily affected by aircraft noise.
- 2.17 On westerly operations, Tandridge is currently affected by air noise from aircraft flying Route 4 and from all arriving aircraft on the final approach, which particularly impacts the communities of Burstow and Lingfield and surrounding areas to the east of the airport.
- 2.18 In terms of air quality, Reigate and Banstead is the most impacted in Surrey. The borough has nine Air Quality Management Areas, including the Horley Gardens Estate, just to the north of the airport, which has been declared an AQMA for the pollutant nitrogen dioxide.

Socio Economics

2.19 Gatwick Airport both provides and supports wider employment for Surrey residents, generating investment in the Surrey economy and is important for business retention. The

JSCs recognise the potential for the NRP to provide new economic and business opportunities and tourism and international trade growth.

- 2.20 The JSCs play a key role in the Gatwick Diamond functional economic area. Overall, their area is economically productive, highly skilled with low unemployment. However, the local economy faces longer-term challenges associated with an ageing population, access to technically skilled employees and housing affordability.
- 2.21 Surrey is an affluent area, however there are pockets of deprivation within the county. The Surrey Health and Well-being Strategy – update 2022, identifies a number of 'key neighbourhoods' for initial focus, based on the 2019 Index of Multiple Deprivation's rankings. These are geographic areas which experience the poorest health outcomes in Surrey. This includes Horley Central and South in Reigate and Banstead. Key indicators in which the area scores poorly are income, health, employment and education, skills and training.
- 2.22 According to the 2021 census both Tandridge and Mole Valley have older populations than the Surrey average, with 20.9% and 23.7 % respectively of the population aged 65+, compared with the Surrey average of 18.9%. In August 2021, 19.3% of Horley Central and South pensioners lived in poverty compared with the Surrey average of 6.1%. Whilst Reigate and Banstead has a slightly younger age profile than Mole Valley and Tandridge, 21.7 % of Horley Central and South residents are disabled according to the Equality Act 2010 definitions plus a further 7.5% who are not disabled under the Equalities Act but have long term physical or mental health conditions.
- 2.23 In terms of education, 28% of people in Horley Central have no qualifications compared with 16% across Surrey. Youth unemployment (18-24 years old) is double the Surrey average (4.5%).
- 2.24 For Mole Valley, house prices are one of the highest in Surrey with an average price of £568,290 (August 2023), which is some 30.6% higher than the English average. Salaries are also above the Surrey and English average at £40,684, further demonstrating the wealth of the district. Nonetheless, the district is not without challenges and the wards of Charlwood and Leith Hill are listed as being within the top 10 most deprived wards (overall) within Surrey. These positions are likely impacted by variables which determine deprivation levels, including access to public transport, but serve to demonstrate challenges for rural communities in an otherwise affluent district, one of which, Charlwood, is in immediate proximity to Gatwick Airport.
- 2.25 In Reigate and Banstead, house prices are significantly higher than the regional and national benchmarks. At the end of March 2023, the median house price was around £485,000 compared with £290,000 across England and £385,000 across the South East. House price growth since 1996 has outperformed the local Housing Market Area, county and national benchmarks and points to a long-term supply/demand imbalance. Median prices in the borough have risen to 14.4 times incomes pointing to acute affordability pressures and notable barriers to buying a home. This has fed through into the trend in declining home ownership.
- 2.26 Over the past 10 years, Horley has seen significant growth with urban extensions first to the north east and more recently at Westvale to the north west of the town centre where a 1,500 unit scheme is nearing completion. Further development is proposed at Hookwood

within Mole Valley, subject to the adoption of its new Local Plan. This development would amount to approximately 560 homes and associated development, across more than 30 hectares of land west of Hookwood. However, the housing market in Surrey is stressed particuarly with regard to affordable housing.

2.27 Similarly, house prices within Tandridge are high, averaging £487,000 in December 2023.

Aviation Across Surrey

- 2.28 The JSC's are located within a wider network of airports and aerodromes including Heathrow, Gatwick, Farnborough and Biggin Hill. A number of smaller airfields also operate in the airspace above Surrey including Dunsfold, Fairoaks and Redhill which have more of a focus on light aircraft and helicopters.
- 2.29 Although there are acknowledged benefits associated with proximity to such a wide aviation network, it can also lead to negative environmental conditions, particularly noise and air pollution from aircraft and traffic congestion that affect the health and wellbeing of residents. As such, the cumulative impact of aviation activities, which can be far-reaching, must be considered and no aviation related airspace change or expansion can be viewed in isolation.
- 2.30 In addition to this DCO, the following projects are ongoing and a relevant consideration to the assessment of the scheme:
 - Expansion of Heathrow¹
 - Future Airspace Strategy Implementation South (FASI-S)²
 - Farnborough expansion³
 - Gatwick Route 4 Re-design
- 2.31 Surrey County Council is a member of the Heathrow Strategic Planning Group, a joint partnership of many of the local authorities responsible for planning the land use, transport, environment, economic development and sustainable development of the sub-region surrounding Heathrow. The group has ongoing liaison with Heathrow and note that their December 2023 Investor Report provided the following update on expansion plans; *"We are conducting an internal review of the work that we have carried out and the different circumstances we find the aviation industry in, and this will enable us to progress with appropriate recommendations and ways forward. The Government's ANPS continues to provide policy support for our plans for a third runway and the related infrastructure required to support an expanded airport".*

¹ While Runway 3 (R3) plans have been paused, a further attempt to expand has not been ruled out indefinitely and remains relevant insofar as the JSC's will need to engage in this process.

² Biggin Hill, Farnborough, Gatwick and Heathrow are all undergoing the airspace change process.

³ The airport recently applied to the Local Authority to increase flights by 20,000 movements per annum.

3. Policy Context

National Policy and the Proposed Development

Airports National Policy Statement (ANPS) (2018)

- 3.1 The Applicant's submission documents confirm that the 2018 Airports National Policy Statement (Airports NPS) is only indirectly relevant to the Gatwick Northern Runway Project as the NPS only has 'effect' in relation to an application for development consent relating to a Northwest Runway at Heathrow Airport.
- 3.2 Nevertheless, as detailed in the application, paragraph 1.14 of the Airports NPS confirms that the NPS sets out planning policy in relation to applications for any airport Nationally Significant Infrastructure Project (NSIP) in the South East of England, and that its policies will be 'important and relevant' for the examination by the ExA and decisions by the Secretary of State in relation to such applications. Paragraph 1.12 of the Airports NPS also states, in this respect, that the NPS '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.' It also establishes government's preferred option for a third runway at Heathrow Airport to provide additional capacity in the South East.

National Policy Statement for National Networks (NPSNN) (December 2014)

3.3 The National Policy Statement for National Networks is relevant to this application as significant alterations to the road network to the north of Gatwick Airport are proposed within the DCO application area along with a significant increase in road use. Particularly pertinent are the assessment principles and impact assessments identified in the NPS which, promoters need to undertake.

Aviation Policy Framework (APF) (2013)

3.4 The Aviation Policy Framework sets out the government's policy to allow the aviation sector to continue to make a significant contribution to economic growth across the country. It sets out government's objectives on the issues which challenge and support the development of aviation across the UK and provided the baseline for the Airports Commission to take account of important issues including aircraft noise and climate change in determining the need for additional airport capacity.

Flightpath to the Future (2022)

- 3.5 Flightpath to the Future 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.
- 3.6 The framework supports the drive towards Jet Zero and a 10% Sustainable aviation Fuel blend into 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 (2018)

- 3.7 This 2018 publication built on the 2013 Aviation Policy Framework and provides policy support for airports making best use of their existing runways (beyond Heathrow), subject to environmental issues being addressed. The position is different for Heathrow, where the government's proposed policy on expansion is set out in the Airports NPS.
- 3.8 The JSCs 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 to reposition and resurface the emergency runway. Pending the provision of further construction/engineering details on those works from the Applicant, the JSCs reserve their position on the applicability of MBU to the Project

Jet Zero: Delivering Net Zero Aviation by 2050 (2022)

- 3.9 The UK Government committed the UK aviation sector to reach net zero, or Jet Zero, by 2050. This builds on its commitment to net zero through the Climate Change Act (2050 Target Amendment) Order 2019 to reduce greenhouse gas emissions by 100% by 2050 compared with 1990 levels. The document sets out policies to support achieving net zero emissions from aviation by 2050.
- 3.10 Furthermore, the target for UK domestic flights to reach net zero was brought forward to 2040. Government considers that the 2040 domestic flights target for net zero could help provide a catalyst for greenhouse gas removals (GGRs) from the aviation sector and help establish a crucial link with this market, which will be vital to achieving Jet Zero by 2050. The document (Par 2.27) reconfirms that the Government will continue to support sustainable airport growth where justified.
- 3.11 Commentary on national aviation policy as it relates to the Proposal is provided in the York Aviation report at Appendix B.

National Planning Policy Framework (NPPF) (December 2023)

- 3.12 The current iteration of the NPPF sets out the latest national policy for plan-making and decision- making. It seeks to do this by:
 - Achieving sustainable development
 - Promoting healthy and safe communities
 - Promoting sustainable transport
 - Making effective use of land
 - Protecting Green Belt land
 - Meeting the challenge of climate change and flooding
 - Conserving and enhancing the natural and historic environment
 - Facilitating sustainable use of materials.

Statutory Development Plans

- 3.13 The JSC development plan documents have policies relating to Gatwick Airport. These will be referenced in issue specific sections later in the report as required, along with other key local policy.
- 3.14 The three Surrey Local Planning Authorities (LPAs) have parts of their areas that fall within the 15km Gatwick aerodrome safeguarding zone. The Applicant's aerodrome safeguarding team seek to make sure that no developments within the 15km safeguarding zone (30km for wind turbines) have an adverse effect on the airport's operation. Aerodrome safeguarding requirements cover a number of aspects including tall structures/buildings, wind turbines and solar installations, blue and green infrastructure and lighting.
- 3.15 All three Surrey local planning authorities have airport related policies in their Local Plans. A consistent approach has been adopted in relation to Local Plan policies on airport car parking, setting out that additional or replacement off-airport related parking, including long and short term parking for passenger vehicles is not supported. This approach was determined by the relevant authorities, in close partnership with Gatwick, as part of the consideration and implementation of its Surface Access Strategy requirements and commitments which focus on providing on-airport parking and within the identified operational boundaries. The collaborative approach assists the local planning authorities in trying to resist and excess of off-airport car parking and fend off unauthorised parking schemes. Unfortunately, this is not fool proof and enforcement against inappropriate airport related parking schemes are still frequently occurring.

Mole Valley District Council

Adopted Mole Valley Local Plan

- 3.16 The Mole Valley Local Plan is comprised of the saved policies within the Local Plan (2000) <u>Core Strategy</u> (2009), and the Dorking Area Action Plan (2021). Core Strategy policy CS1 sets out the current spatial strategy for the district and is heavily influenced by the significant proportion of Green Belt coverage (76%), directing new development towards previously developed land within the built-up areas of Leatherhead, Dorking, Ashtead, Bookham and Fetcham. These settlements are the most sustainable locations within the district in terms of the level of community services and facilities available, access to public transport and supporting infrastructure.
- 3.17 The spatial strategy also supports limited development (including redevelopment) on previously developed land within the identified larger rural villages and infilling only on previously developed land within the small rural villages of the district.
- 3.18 Gatwick related policies within the current plan are relatively light-touch and outdated with the supporting text dealing with the majority of airport related considerations. Polices which do exist include: RUD28: Off-Airport Parking, which seeks to prevent new or extended off-airport parking sites and remains in keeping with the Airport's Surface Access Strategy.

3.19 In addition, relevant airport related land is safeguarded through the adopted policies map and environmental impacts of associated development are addressed by more general development policies, including ENV56: Housing Development Affected by Noise.

Future Mole Valley Local Plan

- 3.20 The Council is in the process of replacing its Local Plan and at the time of submitting this LIR, the Council is undergoing a Main Modifications consultation. The consultation is taking place for seven weeks between 1 March 2024 and 23 April 2024.
- 3.21 Subject to the outcomes of the consultation the Council anticipate adopting its new Local Plan in Summer/Autumn 2024 and prior to a decision on the DCO being taken. As such, policy context throughout this LIR reflect both the current Local Plan and the Council's imminent new Plan.
- 3.22 Once adopted the Future Mole Valley Local Plan will employ the spatial strategy set out in Policy S1: Sustainable Mole Valley, which states that development will be achieved through:
 - Allocated town centre sites in Leatherhead and Dorking for housing-led redevelopment;
 - Development of brownfield land ensuring that sites achieve their appropriate capacity
 - Allocated outdated office complexes in Ashtead and Dorking for housing-led regeneration;
 - Released sites which were modest contributors to the objectives of the Green Belt for housing around the built-up areas of Ashtead, Bookham, Dorking and Leatherhead;
 - Released sites which were modest contributors to the objectives of the Green Belt for housing within and around Hookwood to complement the economic growth point of the Gatwick area;
 - Amended Green Belt boundaries to permit appropriate development in the villages inset from the Green Belt, namely Beare Green, Brockham, Capel, Charlwood, and Westcott;
 - Amended village boundaries to permit limited infilling development in the villages washed over by the Green Belt and in the Countryside Beyond the Green Belt.
- 3.23 The emerging plan includes a wider suite of policy provisions regarding Gatwick Airport. Policy INF6: Gatwick Airport addresses matters of development, noise, car parking and safeguarded land and supports Gatwick as a single-runway operation and is particularly relevant.
- 3.24 A number of proposed land allocations (Figure 3.1) in relative proximity to Gatwick Airport, amounting to approximately 560 homes and associated development, across more than 30 hectares of land west of Hookwood are identified. Planning applications, in advance of adopting the Local Plan, are already being received by the Council.

Figure 3.1: Site allocations Hookwood

- 3.25 Other development management policies within the emerging plan which deal with environmental impacts (EN12: Pollution Control) will, once adopted, also be in place.
- 3.26 It is anticipated that the Future Mole Valley Local Plan will be adopted within the period of examination of the Gatwick NRP DCO.
- 3.27 In addition, a number of Neighbourhood Plans have been successfully prepared covering the period to 2026. For example, Capel parish, is located in the southern half of the district and their Neighbourhood Development Plan notes that while there is good access to the airport, environmental impacts such as noise and increased traffic present an issue for the local area. There are, however, no specific Gatwick related policies within the plan.
- 3.28 MVDC considers that the Northern Runway Project (NRP) will result in a number of significant negative impacts upon the natural and built environments and that the communities that live and work in the local area will likely be adversely affected by the development.
- 3.29 In keeping with its long-standing position and as confirmed in its Relevant Representation [RR-3073] (October 2023), MVDC remains of the view that unless the mitigations and interventions proposed through the DCO appropriately alleviate impacts, then a singlerunway, two-terminal airport is the most appropriate arrangement.

Reigate and Banstead Borough Council

Local Plan

- 3.30 The Reigate and Banstead Local Plan consists of the Local Plan Core Strategy 2012-27 (adopted 2014, reviewed in 2019) and the Development Management Plan (adopted 2019). The Council has recently started work on preparing the evidence for a new style local plan. This single plan will cover the period 2023-2043 and once adopted will supersede the two current Local Plan documents.
- 3.31 Core Strategy Policy CS9: Gatwick Airport states: 'The Council will support the development of Gatwick Airport, within the existing airport boundary and existing legal limits, including the development of facilities that contribute to the safe and efficient operation of the airport.'
- 3.32 DMP Policy INF1 Infrastructure requires timely provision of infrastructure to support a particular development and/ or to mitigate any negative impacts that would otherwise result from the development.
- 3.33 DMP Policy HOR9 Horley Strategic Business Park sets the policy context for a new business park north of the South Terminal Roundabout on a 31ha site. The allocation supports a predominantly office lead development, a complementary range of retail and leisure facilities to serve and facilitate the main business use of the site and at least a 5-ha new high quality public open space, including parkland and outdoor sports facilities. Access to the site would be provided through a direct access onto the M23 spur and a secondary access to the site from Balcombe Road for use by emergency services, public transport and

other sustainable transport mode. As part of the site is in Flood Zone 2, no buildings other than car parks and supporting infrastructure would be permitted in Flood Zone 2. A landscape buffer and public open space will be required, to reinforce the distinctive identity of Horley and its separation from Gatwick Airport (and Crawley) and the wider countryside to the east of the site.

3.34 There are currently no emerging or existing neighbourhood plans in Reigate and Banstead. Reigate and Banstead's position regarding growth at Gatwick has not changed since 2014 in that it recognises the valuable economic role played by the airport but seeks to minimise any adverse impacts associated with its expansion. In particular, the council remains very concerned by the scale of the environmental and surfaces access impacts which would result from the scheme and how these would affect local communities.

A23 Great Street Design Code Supplementary Planning Document

3.35 Since May 2022, Reigate and Banstead has been a DLUHC Design Code Pathfinder and has been preparing a Design Code from Redhill to Horley along the A23. Following the latest consultation in December 2023 to January 2024. The Design Code Supplementary Planning Document is on track to being adopted by the Council in spring 2024. The document provides a localised code incorporating elements of the Surrey County Council Create Streets guidance and the borough's existing design guidance and follows the national guidance. Reigate and Banstead Local Cycling and Walking Infrastructure Plan (2022) Reigate and Banstead and Surrey County Council have prepared a Local Cycling and Walking Infrastructure Plan which includes proposals in the Horley area. The Councils are now working on Stage 2, the Detailed Design stage which includes plans for the Meath Green Lane to Horley Town Centre Proposal along with other Horley town centre walking and cycling route improvements. Subject to the outcome of the consultations, the Stage 2 work should be completed in 2024 and then move onto Stage 3 in 2025. Developing these routes will encourage more cycling and walking including south towards Gatwick and beyond.

Tandridge District Council

Local Plan

- 3.36 The Tandridge Local Plan consists of the Tandridge Core Strategy (adopted 2008) and the Tandridge Local Plan Part 2 Detailed Policies (adopted 2014). The Tandridge Core Strategy covers the plan period up until 2026. The Local Plan Part 2 covers the plan period from 2014 to 2029. These two documents are currently used by the Council for Development Management purposes.
- 3.37 The Council produced an emerging draft Tandridge Local Plan 2033 which was consulted upon at the relevant required stages alongside the sustainability appraisal. This was submitted for examination and the public hearing sessions were held in November 2019. Following this there were exchanges of correspondence between the Planning Inspector and the Council. On 10th August 2023 the Inspector wrote to the Council, following a procedural meeting in July 2023, indicating that the emerging Local Plan was likely to be found unsound. In his 10th August 2023 letter, the Planning Inspector provided the Council

with two options whereby they either withdraw the draft Local Plan or request for the Inspector to draft and provide his report.

- 3.38 On 21st September 2023, the Tandridge District Council's Planning Policy Committee considered a report on the emerging local plan including the consideration of the Inspector's August 2023 letter. The Planning Policy Committee voted unanimously to support the option for the Inspector to provide his report setting out why the submitted plan is unsound and should not be adopted. This recommendation was ratified by full Council on 19th October 2023. The Inspector sent his final report to the Council on the examination of the Tandridge Local Plan "Our Local Plan 2033" on 14th February 2024, in which he concluded that the Local Plan is unsound and thus incapable of being adopted.
- 3.39 Within Section 13 of the Tandridge Core Strategy (adopted in 2008) entitled Environmental Quality there is specific consideration of Gatwick Airport. Paragraph 13:12 states *"Gatwick Airport has a significant effect on the District because of aircraft taking off or coming into land over Tandridge. The noise from aircraft has an impact on the community of Lingfield and surrounding areas. The Council accepts that the airport can expand within the limits of the existing single runway. The Council will work with the airport operator British Airports Authority (BAA), Crawley Borough Council and neighbouring authorities to ensure the impacts of the agreed growth are minimised. The Council will oppose any expansion beyond the agreed levels if it would adversely affect Tandridge residents."*
- 3.40 Paragraph 13:13 goes onto state "Gatwick Airport also affects the District in that there is pressure for off-airport parking in the vicinity of the airport. The Council wishes to see any identified shortfall in provision for parking provided within the airport and not through the establishment of new car parks or extension of existing sites within the Green Belt. Restrictions on airport parking will also support the aim of increasing access to the airport by public transport. The Council will work with BAA and the adjoining local authorities to monitor airport parking and to consider development proposals."
- 3.41 Policy CSP 16 relates specifically to Aviation Development: "The Council will seek to minimise the impact of Gatwick Airport by working with BAA Gatwick, Crawley Borough Council and adjoining local authorities on the development of the airport up to the projected 45 million passengers per annum within the agreed limits of a single runway/two terminal airport. New off-airport parking and extensions to existing sites will be considered in the light of Green Belt policy and the need to minimise the use of the private car to travel to the airport.
- 3.42 Tandridge is also directly impacted by the on and off-site Gatwick Airport operations including vehicle movements, air quality impacts including emissions, noise impacts and health impacts. Tandridge District Council will therefore oppose any expansion beyond the agreed limits that would adversely affect communities in Tandridge by way of aircraft noise or reduced air quality.
- 3.43 There are a number of made Neighbourhood Plans within Tandridge, although not in the areas closest to Gatwick.

Surrey County Council

Surrey Waste Local Plan 2019 – 2033

3.44 The plan sets out how and where different types of waste will be managed in Surrey in the future. It also sets out the planning policy framework for the development of waste management facilities and is used in determining planning applications.

Surrey Minerals Plan Core Strategy Development Plan 2011

- 3.45 The plan provides strategic policies for minerals, and site-specific proposals for the extraction of minerals for the period to 2026. It provides the framework and policies within which planning applications for mineral development are considered. It is supplemented by the Surrey Minerals Plan Primary Aggregates DPD, the Aggregates Recycling Joint DPD and the Surrey Minerals Plan Site Restoration Supplementary Planning Document (SPD).
- 3.46 The DCO scheme does not fall within a Surrey Mineral Safeguarding Area and SCC has confirmed that mineral safeguarding in Surrey is not a material issue for the scheme.
- 3.47 SCC is preparing a new Minerals and Waste Local Plan for Surrey to provide an up-to-date minerals and waste planning framework for a period of 15 years. An initial issues and options public consultation has been undertaken and a preferred options consultation is scheduled for June 2025.

Other Relevant Local Surrey Policy

- 3.48 The impact of the scheme against local development plan policies for the JSCs is considered in the relevant sections later in this report.
- 3.49 The scheme has also been considered against the following strategies, policies and guidance. Policy detail is provided in the relevant topic section:
 - Surrey Local Transport Plan 2022 2032 (LTP4)
 - Healthy Streets Design Code
 - Surrey Flood Risk Management Strategy 2017 2032
 - Surrey's Climate Change Strategy 2020
 - Surrey Health and Wellbeing Strategy 2019
- 3.50 In July 2013 SCC's Full Council agreed a resolution on airport expansion and this still pertains to Gatwick. It was resolved that:
 - This council recognises the crucial role of the airports at Heathrow and Gatwick in supporting employment for Surrey residents, generating investment in the Surrey economy and attracting and retaining major businesses to locate in the county.
 - Given the vital importance of these airports for the continued success of the Surrey economy, this council opposes any proposals that would serve to reduce their capacity or the role of Heathrow as a hub airport
 - This council remains of the view that expansion at either airport would require the environmental and surface access issues involved to be satisfactorily addressed

- This council calls on Government and the aviation industry to prioritise investment in road and rail connections to the airports to reduce congestion and overcrowding.
- 3.51 The council reaffirmed this position at Full Council in both 2016 and 2018 in response to the Airports National Policy Statement. From a county council perspective, areas of focus within this LIR are in line with this resolution.

4. Principle of Development

- 4.1 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 Planning Act 2008 and the 'highway related development' within section 22(3) and (4) of the Planning Act 2008.
- 4.2 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 JSCs understand that the 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.
- 4.3 The National Networks NPS has effect for all national networks NSIPs in England (as stated in paragraph 1.2 of the NN NPS). Because of this, section 104 PA 2008 applies to 'the application' (as set out in section 104(1)).
- 4.4 The JSCs 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 Judgement is provided as Appendix A. 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).
- 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).
- 4.6 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).

- 4.7 Thus, the JSCs 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.
- 4.8 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.
- 4.9 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.
- 4.10 Thus, the JSCs 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 the 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 JSCs 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 JSCs as set out in this Local Impact Report.
- 4.11 The JSCs notes 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 runways⁴ (MBU). The JSCs note that the Applicant is to provide further details on the engineering/construction works involved in repositioning and resurfacing the runway 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

⁴ https://assets.publishing.service.gov.uk/media/5b16b68d40f0b634b469fa35/making-best-use-of-existing-runways.pdf

runway pending sight of that material. 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 NRP. The JSCs 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 NRP 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 development under the PA 2008, it "would be considered on a case by case basis by the Secretary of State."

- 4.12 The JSCs also 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 current 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). This is particularly relevant as the current levels of congestion are 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.
- 4.13 The assessment of the effects of the NRP, 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 NRP compared to the baseline capacity. It is important for the local authorities to understand the implications of the NRP 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.
- 4.14 In terms of the Base Case capacity, the JSCs note that airlines are already expressing concern about the resilience of the current runway operation at 55 aircraft movements per hour given 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 impacts 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.
- 4.15 The assessment of the impacts of the NRP relies on the difference between the baseline capacity and that attainable with the two runways in operation. Whilst it is accepted that the NRP 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 JSCs 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 in the Gatwick locality. The Applicant 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).

- 4.16 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 JSCs 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.
- 4.17 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 NRP 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 NRP should be judged, in the first instance, based on current procedures as it cannot be guaranteed that higher capacity could be delivered in practice.
- 4.18 If the capacity deliverable by the NRP is lower than projected by the Applicant, 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 JSC's present position is that, based on the evidence so far presented, the level of increase in capacity attainable from the NRP has been overstated by the Applicant 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.
- 4.19 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 NRP. This relies on a judgemental assessment of the services that the airlines might operate if the capacity was 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"^{[.} 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 NRP 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 NRP Cases.

- 4.20 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' planning horizons at the individual route level. Both the Base and NRP 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 NRP. 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).
- 4.21 If the Applicant's assumptions were correct, it is unclear why in the Base Case, given 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 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 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.
- 4.22 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 into account 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 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 JSCs are not yet satisfied that 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 NRP over the timescale claimed by the Applicant even if its assumptions as to future NRP capacity are correct. This applies regardless of whether a third runway is constructed at Heathrow or not.
- 4.23 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.
- 4.24 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.

- 4.25 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.
- 4.26 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.
- 4.27 Further evidence supporting these points is set out in the York Aviation Report regarding Need and Capacity at Appendix B.

5. Historic Environment

Current Context

- 5.1 Within Surrey there is one Conservation Area partially within the Project site boundary. This is the Church Road, Horley Conservation Area on the south western edge of Horley. The eastern part of the Conservation Area comprises a number of historic buildings including the Grade I listed Church of St Bartholomew and the adjacent Grade II listed Ye Olde Six Bells public house. To the west of the churchyard the Conservation Area takes in open land on either side of the River Mole, and it is this open land which falls partially within the Project site boundary.
- 5.2 In Surrey within 1km of the scheme boundary, outside of Horley, is the Scheduled Monument Thunderfield Castle, which is a medieval moated manor house. The three Grade 1 listed churches within 1km of the scheme boundary also fall within Surrey. These are Church of St Bartholomew at Church Lane, Horley, Church of St Nicholas in Charlwood and Church of St Bartholomew at Burstow.
- 5.3 Two Grade II* listed buildings are within the village of Charlwood, to the west of the airport. The Providence Chapel on Chapel Road and the Manor House on Norwood Hill Road at Charlwood.
- 5.4 In addition to the remaining part of the Church Road (Horley) Conservation Area, there are three further Conservation Areas wholly or partially within 1 km of the Project site boundary. These are at Burstow to the east of the airport, at Charlwood to the west of the airport and at Massets Road, Horley to the north of the airport.
- 5.5 There are also a number of Grade II listed buildings or structures within 3km of the scheme boundary, with many located in Horley.
- 5.6 Within Surrey a portion of the scheme boundary falls within an Area of High Archaeological Potential (AHAP). This is on the north side of the airport, just to the west of the railway. It relates to the antiquarian discovery of prehistoric flintwork, Late Iron Age cremation burials, and Roman pottery and coins. This land is now used as a staff car park and is known within the scheme as Car Park B.
- 5.7 There are also two Surrey AHAPs at Charlwood, to the west of the airport. One of these relates to the historic core of the village whilst the second is associated with the adjacent and formerly separate settlement core of Charlwood Green. To the north of the airport is a group of AHAPs on the south west side of Horley. To the north and on the western side of the M23 motorway, the area around the Scheduled Monument of Thunderfield Castle has been identified as a County Site of Archaeological Importance.
- 5.8 The ES baseline report provides a thorough overview.

Policy Context

National

- 5.9 Both the ANPS and NPSNN include policies that seek to protect the historic environment. The NSPNN notes that: 'The construction and operation of national networks infrastructure has the potential to result in adverse impacts on the historic environment.'
- 5.10 Paragraph 5.127 states that the; 'applicant should describe the significance of any heritage assets affected, including any contribution made by their setting.' Paragraph 5.129 continues that; 'the Secretary of State should take into account the particular nature of the significance of the heritage asset and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal. Paragraph 5.132 goes on to state; 'Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset, the greater the justification that will be needed for any loss.'

National Planning Policy Framework (NPPF) (December, 2023)

5.11 Section 16 Conserving and enhancing the historic environment considers a wide range of planning and historic environment issues including conservation area designation, the need to maintain or have access to a historic environment record, assess the significance of heritage assets including sites of historic and archaeological interest, archaeological surveys, how to assess the impacts of a scheme and enabling development.

Statutory

5.12 The Planning (Listed Buildings and Conservation Areas) Act 1990 provides specific protection for buildings and areas of special architectural or historic interest. The Ancient Monuments and Archaeological Areas Act 1979 provides specific protection for monuments of national interest.

Local

Mole Valley District Council

5.13 Two conservation areas within Mole Valley are in proximity to the application site, including part of Horley Conservation Area (Figure 5.3) which straddles the boundary with Reigate and Banstead, and Charlwood (Figure 5.1). The settlement of Charlwood has a high concentration of heritage assets with more than 80 listed buildings (Grade I-II*), including Providence Chapel and St Nicholas Church.

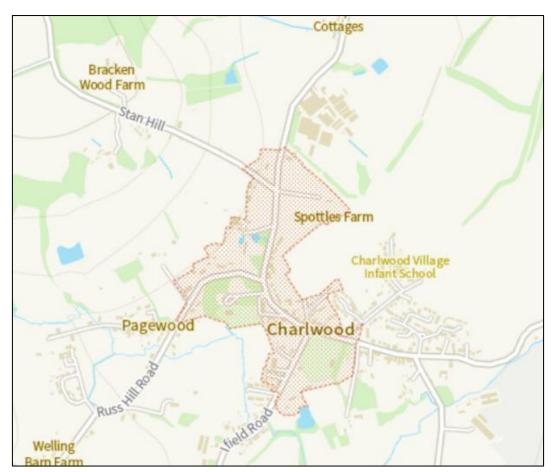


Figure 5.1: Charlwood Conservation Area

Source: MVDC



Figure 5.2: Concentration of Listed Buildings at Charlwood

Source: Historic England

Adopted Mole Valley Local Plan

- 5.14 Local Plan (2000) policies ENV39: Development in Conservation Areas, EN42: Preservation and Restoration of Listed Buildings, EN43: Alterations and Additions to Listed Buildings and ENV49: Areas of High Archaeological Potential all work to ensure development is mindful of all historic character and features both in the built form and below ground. Core Strategy (2009) Policy CS14: Townscape, Urban Design and the Historic Environment further contributes to the achievement of these aims and together the policies are key in preventing harm and ensuring the retention and preservation of heritage assets as far as is practicably possible.
- 5.15 Character appraisals for the larger built-up areas of Ashtead, Bookham, Fetcham, Dorking and Leatherhead (2010) have been prepared in the form of supplementary planning documents (SPD). A second set of SPD cover the smaller settlements of Brockham, Capel, Charlwood, and Westcott (2013). All of these towns and villages have significant designated heritage assets.

Future Mole Valley Local Plan

5.16 Policy EN6: Heritage Assets, once adopted will replace current adopted policies and in an up-to-date context. It recognises the contribution both designated and non-designated heritage assets make to the distinctive and valued character of the area. It also requires that the significance of historic features must be taken into account when planning decisions are made and those factors that will impact on integrity, settings, the public enjoyment of them and their long-term viability.

Local List for Non-Designated Heritage Sites

- 5.17 In 2021, as part of the Government's 'Build Back Better' initiative, the then Ministry of Housing, Communities and Local Government in association with Historic England provided funding to 22 areas to develop local heritage asset lists. Surrey was one of the recipients and carried out the assessment process across the County, on behalf of local districts and boroughs.
- 5.18 Locally list-able buildings, structures, sites and gardens are those that do not quite meet the criteria for being nationally listed by Historic England, but which are still of architectural or historical importance in their local area. Paragraph 135 of the NPPF states that such assets can merit consideration in planning matters, with the authority taking a balanced judgement having regard 'to the scale of any harm or loss and the significance of the heritage asset'.
- 5.19 As stated in PINS Scoping Opinion (7.1) [<u>APP-095</u>] "The physical impacts on historic listed and locally listed buildings of any potential noise mitigation (e.g. additional glazing, insulation or mechanical ventilation) that could be required in noise affected locations should be scoped in and considered as part of the ES."
- 5.20 The Applicant has considered a range of heritage assets in the preparation of the scheme, including Non-designated Heritage Assets within 1 km of the Project Site Boundary and these are mapped at <u>APP-054</u>, Figure 7.6.3 and which have been had regard to. It is noted

that the Locally Listed Buildings and Assets within Mole Valley had not been adopted at the point this work was undertaken but the Council is comfortable that any relevant impacts will still have been considered as part of the Applicant's assessment of statutory listed properties and assets within the same vicinity.

5.21 For context, around 20 properties/assets within Charlwood have been identified as having historic significance and will be placed on the Council's Local List that will be included within the Future Mole Valley Local Plan. These assets further contribute to the already extensive and rich historic qualities of Charlwood and its surrounds and where any review of the historic data is needed as part of the examination, consideration of the following properties will be welcomed:

Reference Number	Locally Listed Building/Address/Asset
MV086	Nos 1-4 Providence Cottages, Chapel Road, Charlwood RH6 0DA
MV089	Old School Cottage, Friars Cottage and Silver Willows, Horley Road, Charlwood RH6 0BJ
LLMV083	Butternut Cottagelfield Road, Charlwood RH6 0DQ
LLMV085	Kings Whim, Ifield Road, Charlwood, RH6 0DQ
MV090	Stone bridge over Spicers Brook, Charlwood Place Farm, Lowfield Heath Road Charlwood
MV101	Charlwood Parish Hall No 2, Norwood Hill Road, Charlwood RH6 0DA
MV117	Star Cottage, Reigate Road, Hookwood RH6 0AP
MV118	Black Horse PH, Reigate Road, Hookwood RH6 0HU
MV121	Hookwood Farm, Reigate Road Hookwood RH6 0HQ
MV122	Hookwood Lodge, Reigate Road, Hookwood RH6 0HD
LLMV089	Russ Hill Hotel, Russ Hill, Charlwood RH6 0EL
MV085	Charlwood Primary School, Swan Lane, Charlwood RH6 0DA
LLMV084, MV097	Half Moon PH No 73, The Street, Charlwood RH6 0DS
LLMV084A	Half Moon Cottage, The Street, Charlwood RH6 0DS
MV093	No 64 Barcroft House, The Street, Charlwood RH6 0DS
MV096	Aberdeen House No 74, The Street, Charlwood RH6 0DS
MV099	Rectory Stables No 111, The Street, Charlwood RH6 0EE
MV095	Charlwood House, The Street, Charlwood RH6 0DS
MV098	War Memorial, The Street, Charlwood RH6 0DS

Reigate and Banstead Borough Council

Local Plan

5.22 Reigate and Banstead Core Strategy Policy CS4 Valued townscapes and the historic environment states; 'Development will be designed sensitively to respect, conserve, and enhance the historic environment, including heritage assets and their settings. Development proposals that would provide sensitive restoration and re-use for heritage assets at risk will be particularly encouraged'. DMP Policy NHE9 Heritage Assets provides the considerations to be applied in the determination of planning applications including tests of harm, the treatment of different heritage assets including non-designated archaeological and heritage assets, securing the long-term viable use of a heritage asset,

enhancement of heritage assets including views and the preservation of conservation areas.'

- 5.23 Development Management Plan Policy NHE9: Heritage Assets seeks to preserve and wherever possible enhance the Borough's designated and non-designated heritage assets and historic environment including special features, area character or setting of statutory and locally listed buildings. Paragraph 3 further states; "Any proposal which would result in harm to, or total loss of a designated heritage asset or its setting will not be supported unless a clear and convincing justification is provided."
- 5.24 DMP Policy NHE9 Paragraph 12 requires 'An archaeological assessment including where appropriate a field evaluation, will be required to inform the determination of planning applications for: a. Sites which affect, or have the potential to affect, Scheduled Monuments. b. Sites which affect, or have the potential to affect, areas of Archaeological Importance or High Archaeological Potential. c. All other development sites exceeding 0.4 ha. Paragraph 13 continues:
- 5.25 DMP Policy NHE9 Paragraph 13 continues: 'Where the policies map, or other research, indicates that remains of archaeological significance are likely to be encountered on a site, the Council will require schemes for the proper investigation of the site to be submitted and agreed. These must incorporate the recording of any evidence, archiving of recovered material and publication of the results of the archaeological works as appropriate, in line with accepted national professional standards.'
- 5.26 Church Road, Horley Conservation Area (Figure 5.3) Character Appraisal and Management Proposals 2014 provides an assessment of the conservation area. The area was once a trading post on the River Mole and the centre of Horley until the arrival of the railway in 1841. The statutory listed grade 1 14th century St Bartholomew's Church is the dominant building. The adjacent Six Bells Public House was a former ecclesiastical building and now has statutory listed Grade 2 status along with nearby High House, 75 Church Road which was built between 1600 and 1650. The adjacent church yard forms a key element in the setting of the church and the pub. The church spire is visible from the west. The southern section of the conservation area is within the DCO boundary.



Figure 5.3 Church Road, Horley Conservation Area

5.27 Approximate 500 metres to the NE of Longbridge Roundabout is the Massetts Road, Horley Conservation Area (Figure 5.4). Located on the flat river gravels of the Mole catchment. The predominant character of the buildings is Victorian and Edwardian residential. Due to the size of the buildings and proximity to the airport there are a number of guest houses. An appraisal was carried out in 2013 which identified the buildings, open spaces and individual features that define the character of the conservation area.

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Figure 5.4 Massetts Road, Horley Conservation Area

Tandridge District Council

Local Plan

5.28 Policy DP20 of the TLP2 (2014) relates to Heritage Assets and states:

"There will be a presumption in favour of development proposals which seek to protect, preserve and wherever possible enhance the historic interest, cultural value, architectural character, visual appearance and setting of the District's heritage assets and historic environment. Accordingly:

1. Only where the public benefits of a proposal significantly outweigh the harm to, or loss of a designated heritage asset or its setting, will exceptional planning consent be granted. These benefits will be proportional to the significance of the asset and to the level of harm or loss proposed.

2. Where a proposal is likely to result in substantial harm to, or loss of, a designated heritage asset of the highest significance (i.e. scheduled monuments, grade I and grade II* listed buildings, and grade I and grade II* registered parks and gardens), granting of permission or consent will be wholly exceptional.

B. In all cases the applicant will be expected to demonstrate that:

 All reasonable efforts have been made to either sustain the existing use, find viable alternative uses, or mitigate the extent of the harm to the asset; and
 Where relevant the works are the minimum necessary to meet other legislative requirements.

C. With the granting of permission or consent the Council will require that: 1. The works are sympathetic to the heritage asset and/or its setting in terms of quality of design and layout (scale, form, bulk, height, character and features) and materials (colour and texture); and 2. In the case of a Conservation Area, the development conserves or enhances the character of the area and its setting, including protecting any existing views into or out of the area where appropriate.

D. Any proposal or application which is considered likely to affect a County Site of Archaeological Importance, or an Area of High Archaeological Potential (AHAP), or is for a site larger than 0.4 hectares located outside these areas, must be accompanied by an archaeological desk-top assessment. Where the assessment indicates the possibility of significant archaeological remains on the site, or where archaeological deposits are evident below ground or on the surface, further archaeological work will be required. Evidence should be recorded to enhance understanding and where possible material should be preserved in-situ. In cases where the preservation of remains in-situ is not possible, a full archaeological investigation in accordance with a Council approved scheme of work will be required; the results of which should be made available for display at the East Surrey Museum or other suitable agreed location."

Surrey County Council

5.29 SCC's Historic Environment Planning (HEP) Team provides advice and guidance on managing, protecting and enhancing heritage assets in Surrey, working in partnership with organisations such as Historic England and the Surrey Archaeological Society. One of the

team's major roles is advising on planning proposals for new developments. This is a requirement laid out under the Ancient Monuments and Archaeological Areas Act (1979) and the NPPF.

5.30 When excavation is required, the HEP archaeologists agree the project design and monitor the work in progress. All information that results from such work is then approved by the Archaeological Officers and deposited in the Historic Environment Record. The team has responsibility for maintaining the Surrey Historic Environment Record, which is a comprehensive database of Surrey's known heritage assets, finds and features.

Construction Phase Impacts

- 5.31 The scheme's Archaeological Evaluation Report outlines the results of archaeological work at two locations in Surrey, Longbridge Roundabout and Reigate Field, both of which followed geophysical survey on the sites.
- 5.32 Trial trenching on both sites revealed archaeological features. However, dating evidence was not found and the features could not be assigned a specific period. On both sites they were characterised as the remains of agricultural field systems. These are common in the landscape and not of particularly high significance, especially when they are undated such as these. Archaeological advisers at SCC agree that no further work is required at either of these locations. The Written Scheme of Investigation for Post-Consent Archaeological Investigations – Surrey (APP-105) is a method statement for the area within the NRP known as Car Park B. This site is designated as an Area of High Archaeological Potential by SCC, due to the antiquarian discovery of Iron Age and Roman artefacts - including cremation burials – in the past. More recent research conducted as part of this development project has suggested that the site may have been truncated and damaged by previous development impacts, but a potential for further discoveries does still theoretically exist. This document sets out proposals for the post-consent investigation of the site to clarify this potential. The conduct of the works as a post-determination exercise rather than a pre-determination one has previously been agreed with the archaeological advisors at Surrey and is not in contention.
- 5.33 The document is broadly acceptable, and the proposed methodology for the investigation of the site is accepted. However, the sampling strategies set out in paragraphs 6.2.17 and 6.2.18 (APP-105) are not wholly acceptable as they do not conform to the minimum standards adopted by SCC for the examination of archaeological features. This should be subject to further discussion depending upon the discovery of any archaeological features on the site when the works commence. It is proposed that the precise methodology for feature investigation will be pre-agreed with the HEP team following exposure and cleaning, so it appears the process just needs to be confirmed and secured within the documentation.
- 5.34 The Statutory Listed Grade 1 Church of St Bartholomew and Grade 2 listed Ye Old Six Bells Public House and High House are located approximately 200m from the A23 Brighton Road to the North of Longbridge Roundabout.

Operation Phase Impacts

5.35 When the scheme is in the operational phase more traffic will be able to use Longbridge Roundabout and travel north along the A23 Brighton Road. The widening of the A23 in this location will mean that part of the widened road will have a greater impact on Church Meadows and the setting of the Grade 1 Church of Saint Batholomew and adjacent Grade 2 Listed Buildings. It is unclear from the heritage assessment matrix model how this has been specifically assessed. However, the proposed enhancements to Church Meadows provide an opportunity to enhance the setting of the church.

Required Mitigation

5.36 The proposed restoration of Church Meadows following the River Mole Bridge widening works and Longbridge Roundabout realignment, restoration/ enhancement works would be required along the lines proposed by the Applicant. This would need to take account of the role of Church Meadows in the setting of the Listed Church in accordance with DMP Policy NHE9 para 8. Detailed plans including planting and details of the proposed footbridge and footpath alignments would be required and would need to be agreed with the Local Planning Authority to ensure that the setting of the listed buildings is retained/ enhanced to be consistent with both NPS's, the NPPF and DMP Policy NHE9. The mitigation should also take account of the time it takes for the new fabric, plants and particularly trees will take to reach maturity – close to 25-30 years for trees from undertaking the restoration works.

Requirements and Obligations

Summary of impacts – Historic Environment						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
HE1	SCC not identified as relevant discharging authority within dDCO – inefficient discharging process	С	Negative	Revisions required to Requirement 14 Archaeological remains – i.e. replace relevant planning authority with County Archaeologist at Surrey County Council	Aligns with roles and responsibilities within Surrey	
HE2	Sampling strategies for examination of archaeological features not yet agreed	C	Potentially negative if not agreed	Approved sampling strategy to be detailed in revised Written Scheme of Investigation.	SCC minimum standards for examination of archaeological features	
HE3	Lack of consideration of suitability of noise insulation policy for listed buildings	C&O	Negative	Specific provisions for listed buildings within the policy given the potential for the need for listed building consent	As highlighted within PINs scoping opinion	
HE4	Harm to setting of Listed St Bartholomew's Church	C&O	Negative	The re-landscaping and replanting of Church Meadows should consider how these changes could help enhance the setting of Listed St Bartholomew's Church	RBBC DMP NHE9 para 8	

6. Landscape, Townscape and Visual Resources

Current Context

- 6.1 Outside of the settlement areas, much of the Surrey landscape bordering the scheme is characterised as Low Weald farmland, predominantly rural landscapes with larger more regular field patterns than further west in the county. The landscape typically includes well- developed hedgerow networks and shaws and is crossed by a network of watercourses and brooks feeding into the River Eden and Mole.
- 6.2 The Surrey Hills National Landscape (Formerly identified until 22 November 2023 as an Area of Outstanding Natural Beauty (AONB)) is a nationally important landscape which principally covers part of the North Downs and Greensand Ridge in Surrey and extends across the county including through Mole Valley, Reigate and Banstead and Tandridge. Gatwick is visible along much of the south facing ridge of the North Downs around to Leith Hill in the west c8 –12 kms. Parts of the National Landscape at Dorking, Reigate and Redhill are located within the wider study area for overflying aircraft.

Policy Context

National

Airports National Policy Statement (ANPS) (2018)

- 6.3 The ANPS paragraph 5.213 states; 'For airport development, landscape and visual effects also include tranquillity effects, which would affect people's enjoyment of the natural environment and recreational facilities. In this context, references to landscape should be taken as covering local landscape, waterscape and townscape character and quality, where appropriate'.
- 6.4 Paragraph 5.214 states 'The landscape and visual assessment should reference any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the preferred scheme. In addition, the Applicant's assessment should take account of any relevant policies based on these assessments in local development documents.'
- 6.5 Paragraph 5.215 states that the assessment should include 'surface access proposals, aviation activity and landscape character, including historic characterisation.
- 6.6 Paragraph 5.216 states that 'noise and light pollution effects, including on local amenity, tranquillity and nature conservation' should be included.
- 6.7 Paragraph 5.218 states that: 'The preferred scheme needs to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints, the development should aim to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.

National Policy Statement for National Networks (NPSNN) (December 2014)

6.8 Paragraph 5.146 of the NPSNN states, in relation to the assessment of effects on views and visual amenity that it 'should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation'.

National Planning Policy Framework (NPPF) (December 2023)

6.9 NPPF paragraph 180 states that: 'Planning policies and decisions should contribute to and enhance the natural and local environment by: protecting and enhancing value landscapes.... (in a manner commensurate with their statutory status or identified quality in the development plan).

Local

Mole Valley District Council

- 6.10 Mole Valley is highly attractive and made up of predominantly rural and open landscapes, especially in the south of the district where it is adjacent to the CBC and Gatwick border. The chalk hills of the North Downs run east to west across Mole Valley, including well known beauty spots such as Box Hill. To the south of the Downs the District's countryside forms part of the gently undulating and open Low Weald landscape, while the Greensand ridge, including Leith Hill, the highest point in the South East, crosses the south west of the District. Air traffic movements and the airport, can be seen from most, if not all, of the notable high points in the district. As such, the airport and its operations have an integral impact on the landscape for the district.
- 6.11 Over a third of the district is covered by the Surrey Hills National Landscape (SHNL) and is anticipated to increase following the conclusion of Natural England's ongoing boundary review of the Surrey Hills. In its representation to the consultation on the Surrey Hills Boundary review, submitted on 12 June 2023, the Council made an argument to increase the coverage of the designation extending south of Gosterwood Farm and Fishfold Farm to Okewood Hill and Walliswood (Figure 6.1). In its representation to the consultation on the Surrey Hills Boundary review, submitted on 12 June 2023, the Council made an argument to increase the coverage of the designation extending south of Gosterwood Farm and Fishfold Farm to Okewood Hill and Walliswood (Figure 6.1). This is in addition to the significant expansion Natural England were already suggesting as part of its own assessments.
- 6.12 If these boundary amendments are accepted by Natural England and subsequently the Secretary of State, a significant swathe of land to the west of the airport, will be within the flown over area and tranquility significantly undermined.

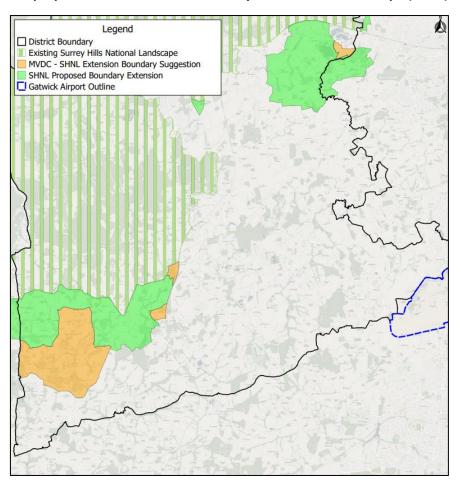


Figure 6.1 MVDC proposals for inclusion in the Surrey Hills National Landscape (SHNL)

Source: MDVC

- 6.13 There are also areas of landscape outside the nationally designated areas that are particularly highly valued. In the Surrey context the Area of Great Landscape Value (AGLV) has been a long-standing policy designation used to identify land of particularly high landscape quality outside of, but adjoining, the SHNL. The policy approach to the protection and enhancement of the landscape in Mole Valley is to provide the highest level of protection to the SHNL, supported by the continuing designation of the AGLV which in itself is an area of high quality landscape.
- 6.14 In addition, while it is not a landscape designation, but inherently related to landscape character and openness, 76% of the district is designated as Green Belt and is a policy designation that seeks to keep land open and absent of development. The Green Belt in Mole Valley is immediately located, and ends, at the northern boundary of the application site. Both Hookwood and Charlwood, the two closest Mole Valley settlements to Gatwick Airport, are inset from the Green Belt, although there is also some dispersed development including both homes and businesses located away from the main settlements and which remain washed over by the designation.
- 6.15 The south-west of Mole Valley lies outside the Green Belt, but includes substantial areas of attractive open countryside. This area is known as the Countryside Beyond the Green Belt (CBGB) and includes many areas of high landscape, heritage or biodiversity value.

Adopted Mole Valley Local Plan

- 6.16 Core Strategy (2009) Policy CS13 (Landscape Character) is in place to safeguard or enhance the high quality and varied landscape of the District, especially recognising the importance of the SHNL and the AGLV.
- 6.17 However, the majority of current landscape related policies are within the Council's Local Plan (2000) including:
- 6.18 Policy ENV3: Development in the Countryside Beyond the Green Belt focuses on those rural areas which are not covered by the designation. This policy ensures that the countryside is protected for its own sake, and that development adversely affecting its open character will not be permitted. Instead, only development that relates to agriculture, and forestry or which comprises essential facilities for outdoor sport and outdoor recreation, mineral extraction and waste disposal may be considered acceptable. Other development in the countryside beyond the Green Belt including the extension and replacement of dwellings, the extension and redevelopment of industrial and commercial premises and other development appropriate to the countryside will also be considered subject to other relevant policies. All development must be appropriate in scale, form, impact and siting.
- 6.19 Policy ENV4: Landscape Character seeks to ensure that development proposals and forestry schemes in the countryside and rural settlements conserve and don't detract from the character of the local landscape. In determining planning applications account is taken of the visual impact of the proposed development on the landscape, the extent to which the impact of new buildings has been softened and integrated into the landscape by careful consideration of siting, design, colour and associated planting and whether any existing landscape features such as trees and hedgerows should be retained.
- 6.20 Policy ENV8: The River Mole, The Tilling Bourne and the Pipp Brook deals with development which would have a significant or adverse effect on fisheries, the nature conservation, landscape and recreational value of the River Mole, the Tilling Bourne, the Pipp Brook and other areas of open water.
- 6.21 Policy ENV23: Respect for Setting Requires applicants to demonstrate that they have considered the wider setting of the proposed development. The settings in Mole Valley are diverse and range from beautiful countryside, through more suburban residential areas to tight town centre locations. This policy sets out that development must take account of variables such as: scale, character, surrounding environment, public views, and opportunities to create attractive new views or vistas, patterns of development and the siting of development in the countryside.

Landscape Supplementary Planning Document (SPD) July 2013

6.22 The Landscape SPD identifies important characteristics of the landscape throughout Mole Valley, focusing on rural areas and landscape setting of towns and villages. The SPD provides general guidance on landscape issues and how they should be addressed by developers and those responding to planning applications. The SPD is in place to assist with the implementation of Core Strategy Policy CS13 (Landscape Character).

- 6.23 The SPD looks at the four main landscape types within the district, which is also further detailed in the Surrey-wide Landscape Character Assessment (2015). Gatwick Airport has most relevance to the Open Weald Landscape Character Area (LCA) detailed in the SPD and covers the southern part of Brockham and the villages of Newdigate, Leigh, Hookwood and Charlwood.
- 6.24 Open Weald Key Characteristics:
 - Moderately open
 - Small scale, undulating landscape Small, irregularly shaped fields are divided by strong pattern of square-cut hedges with regularly spaced hedgerow oaks
 - Narrow winding lanes are enclosed by low hedges or are sunken within hedge banks
 - Rivers / streams are sunken below the surrounding land and only apparent as result of occasional riparian alder and willow
 - Small scattered development occurs on higher ground, larger scale modern development lies on the flat plain around Gatwick
 - Church towers and farm buildings provide important focal points in short distance views.

Future Mole Valley Local Plan

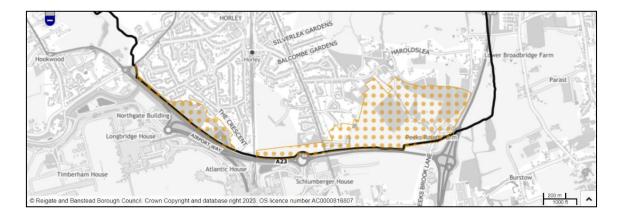
- 6.25 Once adopted the emerging Local Plan will be able to rely on a comprehensive suite of policies for landscape protection and enhancement. The following emerging policies are of relevance.
- 6.26 Policy EN1: The Green Belt Establishes a clear framework within which applications for development in the Green Belt will be considered and accords with national policies of the NPPF.
- 6.27 Policy EN2: The Countryside Beyond the Green Belt Continues to safeguard the area for its own sake and encourages most development to be directed to existing settlements which benefit from a higher standard of access to infrastructure and local services. The policy sets a framework against which applications for development and alteration to existing structure, will be considered.
- 6.28 Policy EN8: Landscape Character This strategic policy sets out provisions for the protection and enhancement of both designated (including the SHNL) and non-designated local landscapes (including the AGLV). It sets criteria against which each application for development, within and in the setting of, the designated landscape will be assessed. Policy provision for governance mechanisms ensuring the Council's involvement with the governing bodies and agencies responsible for landscapes such as the Surrey Hills National Landscape Management Board, is also included.

Reigate and Banstead Borough Council

Local Plan

- 6.29 Core Strategy Policy CS2: Valued landscapes and natural environment requires development to protect and enhance the borough's green fabric. Landscape character will be protected and enhanced. Paragraph f specifically refers to urban green spaces, green corridors and site-specific features which make a positive contribution to the green fabric and/ or a coherent green infrastructure network and will, as far as practicable be retained and enhance. These themes are further developed in DMP Policy NHE1: Landscape protection. This includes protection of the Surrey Hills Area of Outstanding Natural Beauty and the Area of Greater Landscape Value.
- 6.30 Paragraph 3 of NHE1 requires 'Development proposals between Horley and Gatwick Airport must ensure that a physical break is retained through the protection and intensification of existing tree/ hedgerow belts another landscape measures including introducing a suitable and distinct landscape buffer to reinforce the identity and separateness of the settlement of Horley from Crawley and Gatwick airport (Figure 6.2). Paragraph 4 considers the need for new development to respect the landscape character and landscape features of the locality have particular regard to potential impacts on ridgelines, public views and tranquillity, and the effects of light pollution.

Figure 6.2 Gatwick Open Setting



6.31 DMP Policy NHE3: Protecting Trees, Woodland Areas and Natural Habitats is pertinent Paragraph 3 states that 'Unprotected but important trees, woodland or hedgerows with ecological, amenity or other value should be retained as an integral part of the design of development except where their long-term survival would be compromised by their age or physical condition or there are overriding benefits of their removal. Paragraph 4 states; 'Where loss of features described in 2 and 3 above are permitted, this will be subject to adequate compensatory provision commensurate to that which is lost. This should be provided on site where possible, but offsite provision will also be considered in exceptional circumstances.' Paragraph 5 considers; 'Where replacement trees and hedge planting is required, appropriate species of trees should be used and sufficient space must be provided in the design stage for tree provision, including space to allow trees to reach their optimum size. Any new green and blue infrastructure should link with existing green/blue infrastructure in the surrounding area where possible. d. Incorporate open spaces and green spaces which can be used in a variety of ways and support a range of activities. e. Protect and enhance public rights of way and National Trails. f Where possible, create new links and corridors between open spaces, green/blue infrastructure and the countryside beyond, such as through the provision of footpaths and bicycle paths or through planting and landscaping. g. Identify measures for appropriate maintenance planting and landscaping.

- 6.32 DMP Policy OSR1: Urban Open Space outlines the importance of urban open space and its value in terms of providing space for recreation, biodiversity and/or nature conservation. Paragraph 2 states: Any other development which would result in the full or partial loss of designated Urban Open Space will only be permitted in exceptional circumstances, where any loss of openness resulting from the proposed development would not have an adverse effect on local character, visual amenity or ecological value; and either:
 - a. There is clear evidence to demonstrate that the site is surplus to requirements and does not make a significant contribution to the recreational, community, ecological or amenity value of the area
 - b. Provision is made for appropriate and suitably located replacement open space of the same type and of at least equivalent quality and/or quantity. Replacement open spaces should be located as close to the lost open space as possible
 - c. The proposal is for alternative sports and recreational provision which clearly outweighs the loss of the open space;
- 6.33 Part 3 of Policy OSR1 states that; 'Planning conditions and/or obligations will be used to secure the timely delivery of any agreed enhancements or alternative provision.
- 6.34 Urban Open Space in Horley includes Church Meadows and Riverside Garden Park (Figure 6.3).



Figure 6.3 Urban Open Space in South Horley

Reigate and Banstead Landscape and Townscape Character Assessment (June 2008)

- 6.35 The Landscape north-east of Gatwick Airport is identified at as being within the 'Low Weald' character sub-area C1. The key characteristics are described as follows:
 - The landscape has a gently changing topography forming low, raised areas and very shallow valleys. Expansive views are possible.
 - Unified landscape which exhibits similar characteristics across its extents, with some variety of character where it meets urban areas.
 - There are localised small blocks of woodland, some of which are designated as ancient woodland.
 - The area to the east of Horley is the only part of the Borough's countryside not designated as Green Belt.
 - South of Horley, the landscape is interrupted and severed by human activities, transport infrastructure and development mainly due to the proximity to Gatwick Airport, rail lines and major roads. There are associated noise and visual impacts on open spaces which result in a low sensitivity to change. Green areas are frequently associated with 'horsiculture'.
- 6.36 In terms of townscape Horley is described in the assessment as follows:
 - 'Mostly 1930's-1950's suburbia, arranged on straight, uniform road layout; A Victorian Edwardian core to the town centre, including a conservation area, and localised surviving pre-Victorian development; and more recent suburban development around the edge of town, ranging from 1960's to recent development.'
 - That part of the settlement nearest to the airport is suburban in character and also includes the Riverside Garden Park beside the A23. This area once formed part of Horley Common; an area of semi-natural woodland and open grassland. This settlement also includes Church Meadows at Church Road conservation area, Longbridge Roundabout. These areas of public open space form relatively attractive and well-used community assets within the townscape character area.
 - The assessment defines the range of townscape quality of Horley from good to ordinary. The settlement is mainly suburban in character with a Victorian/Edwardian town centre and two conservation areas. The assessment defines the overall townscape value as medium

Tandridge District Council

Local Plan

- 6.37 Within Tandridge District there are four main character areas:
 - North Downs
 - Greensand Ridge
 - Low Weald
 - High Weald
- 6.38 Policy CSP 20 relates to Areas of Outstanding Natural Beauty and states: "The conservation and enhancement of the natural beauty of the landscape is of primary importance within the

two Areas of Outstanding Natural Beauty, reflecting their national status. The principles to be followed in the area are to:

- conserve and enhance the special landscape character, heritage, distinctiveness and sense of place of the locality;
- conserve and enhance important viewpoints, protect the setting and safeguard views out of and into the AONB;
- protect prominent locations on skylines and slopes and for development to take advantage of existing landscape features and tree screening;
- support suitable located sustainable development necessary to facilitate the environmental, economic and social well-being of the AONBs and their communities;
- promote access to, particularly by means other than the car, recreation within and enjoyment of the area;
- apply the highest environmental design standards to development.
- 6.39 The same principles will be applied in the associated Area of Great Landscape Value which will be retained for its own sake; as a buffer to the Surrey Hills AONB and to protect views from and into the AONB. The AGLV will be retained until such time as there has been a review of the AONB boundary".
- 6.40 Policy CSP 21 relates to Landscape and Countryside and it states; "The character and distinctiveness of the District's landscapes and countryside will be protected for their own sake, new development will be required to conserve and enhance landscape character."

Surrey County

Surrey Landscape Character Assessment

- 6.41 The 2015 Surrey Landscape Character Assessment was developed to describe variations in the landscape character at a county level. The work identified the components of the landscape including the underlying geology, soils, topography, land cover hydrology, vegetation, historic and cultural development and physical features and describes how these elements and features combine together to make one place different from another.
- 6.42 Much of the Surrey landscape bordering the scheme is characterised as Low Weald farmland (Type WF), predominantly rural landscapes with larger more regular field patterns than further west in the county. It is an historic landscape pattern associated with farming and grazing of animals. The landscape typically includes well- developed hedgerow networks and shaws and is crossed by a network of watercourses and brooks feeding into the River Eden and Mole. Long distance views framed by vegetation are possible, particularly from more open, elevated locations, including views of the greensand hills and Chalk Ridge to the north.
- 6.43 The assessment sets out that the landscape strategy for the low weald farmland is to conserve its peaceful, unsettled character, whilst promoting traditional management of woodlands and hedgerows including restoration of hedgerow trees.
- 6.44 Landscape guidelines set out within the assessment are summarised as follows:

Land Management

- Protection and management of ancient woodlands.
- Encourage sustainable and multi-purpose woodlands, and the use of locally appropriate species.
- Encourage traditional management and restocking of hedgerows, including hedgerow trees.
- Encourage understanding of the historic dimension of the landscape with landowners, and conserve existing historic field pattern.
- Conserve riverside trees.
- Seek to conserve and enhance the low key, rural character of the footpaths through the encouragement of appropriate surfacing, materials and signage.
- Enhance the urban fringe and suburban landscape.
- Conserve and maintain the hedgerow field boundaries and the connectivity and quality of the network.
- Conserve and enhance the natural and vegetated character of River Mole and River Eden and their tributaries. This character area type coincides with Surrey's Rivers biodiversity opportunity area.

Built Development:

- Conserve the rural, largely unsettled landscape.
- Conserve the pattern and character of existing settlements, resisting spread and coalescence of settlement.
- Conserve and enhance the landscape setting to villages and edge of settlement.
- Any new development should conserve the enclosure and vegetated character of the surrounding landscape.
- Built form to be integrated by woodland edges, shaws, hedgerows and open areas linked to the existing network.
- Ensure new development respects existing rural characteristics and conserves distinctive open areas, greens and commons.
- Encourage and new built development including sympathetic contemporary architecture to respect local characteristics, through high quality detailing and use of local pattern and building materials.
- Ensure farmstead or other agricultural conversions are sensitive to surrounding landscape, with consideration given to design of new domestic curtilages and boundary treatments.
- New transport or other infrastructure to be integrated in to the landscape by careful siting and additional planting that respects the scale and pattern of the landscape.
- Ensure new development does not impact on the existing 'dark skies' within this sparsely settled area.
- Ensure design of lighting and signage respects rural location, biodiversity and dark skies area.
- Encourage the use of appropriate surfacing, materials and signage for public rights of way footpaths, and cycle ways to minimise the impact on the landscape and character of the open countryside.

Surrey Hills National Landscape (SHNL) (formerly known as Area of Outstanding Natural Beauty (AONB))

- 6.45 About 10 miles to the north of Gatwick Airport lies the North Downs, much of which was designated in 1958 as an Area of Outstanding Natural Beauty (AONB). On the 22 November 2023 such designations were renamed National Landscapes by DEFRA. A formal Surrey Hills AONB boundary review, led by Natural England, is currently underway to consider the case for extending the existing designation. A statutory consultation on proposals ran from March to June 2023. This proposed a number of areas for expansion within Mole Valley, Tandridge and Reigate and Banstead. Should the boundary be extended as proposed, the southern boundary of the landscape designation would be extended southwards towards Gatwick Airport. The boundary review is expected to be concluded in 2024.
- 6.46 Visual amenities and supporting the tranquillity found in the Landscape are of particular importance given the National Landscape designation. Protection of the visual amenities and tranquillity found in these designations are important considerations in both the NPS-NN and ANPS.
- 6.47 Surrey Hills National Landscape has its own Management Plan 2020-2025 in accordance with the Countryside and Rights of Way (CroW) Act 2000. This document has been endorsed by the Surrey host authorities and is as such a material consideration in planning applications. Policy P2 states that: 'Development will respect the special landscape character of the locality, giving particular attention to potential impacts on ridgelines, public views and tranquillity.' Aircraft noise is identified as a key pressure and threat in paragraph 1.12.

Area of Great Landscape Value (AGLV)

- 6.48 About 10 years after the designation of the Surrey Hills AONB, it became apparent that there were a number of additional areas that share many of the high-quality landscape amenities identified in the designated landscape. After several assessments, the local designation called 'Area of Great Landscape Value' was introduced into local planning documents. The purpose of this was to protect the unique qualities found in these areas from development until the National Landscapes boundary was reviewed.
- 6.49 This AGLV designation was accepted by 6 Surrey Authorities Local Plan examinations including Waverley, Guildford, Mole Valley, Reigate and Banstead, Tandridge and Surrey County Council (Minerals and Waste Plans) and will be reviewed following the National Landscape Boundary review. Most of the National Landscape extension proposals currently have an AGLV local designation. In policy terms the AGLV is treated by Local Plans in the same way as the Surrey Hills National Landscape.

Construction Phase Impacts

6.50 From a methodology perspective, the JSCs are now broadly content with the viewpoints selected within the LVIA.

Positive

6.51 The JSC's have identified no positive impacts during this phase.

Neutral

6.52 The JSC's have identified no neutral impacts during this phase.

Negative

- 6.53 There will be a very significant loss of Landscape and tree/vegetation buffer between Horley and Gatwick resulting in a significant urbanising effect and long-term harm to Riverside Garden Park.
- 6.54 The Longbridge Roundabout alterations and associated two sets of bridge works and extension of a raised pier over the River Mole would have a very significant detrimental impact on the landscape in the vicinity and would undermine the visual amenities for local residents, users of the footpaths and cycle ways and those travelling on trains and along the roads for many years.

Landscape Character Impacts

- 6.55 The South Terminal Roundabout contractor compound (T1), road and bridgeworks along the A23 Brighton Road will have an adverse impact on the character of the Low Weald Landscape during the construction stage. The heavy plant and operations required to undertake the works would be prominent within the horse paddocks and grass fields on this edge of the character area. This would create a discordant element that would have a direct effect on the character area and an influence over the neighbouring urban fringe fields and settlement edge at Horley.
- 6.56 The surface access alterations for Longbridge Roundabout, including the satellite contractor compound and temporary bridge structures on the Brighton Road, would be located within the Mole Valley Open Weald and partially within the Church Road, Horley conservation area. The woodland belt on the edge of Horley is up to approximately 75 metres wide at this point and the loss of up to approximately 25 metres would change the character of the interface between Riverside Garden Park and Longbridge roundabout. Vegetation removal within and around the junction would open up this part of the surface access network and intervisibility between farmland and urban edge. These changes would have a direct effect on the character area.
- 6.57 The edge of the character area would be considerably changed through loss of grassland, trees and openness to accommodate the construction activities and compound. Whilst there is farmland within the wider character area, the immediate vicinity is currently influenced by the Longbridge roundabout junction and urban edge of Horley, the promoter has considered this to be of medium sensitivity to this type of change. However, the high magnitude of temporary direct impact on the location during construction would, we consider, result locally in a major adverse effect during the day and night during construction as a result of the piling, plant equipment used and works lighting.

People Using Public Open Space

Riverside Garden Park, Horley

- 6.58 The removal of the trees and other vegetation for the surface access improvements is anticipated to be undertaken towards the end of the Initial Construction Period (2024-2029), effectively removing a green buffer that has grown up over the past 20-30 years. There will be complete removal of vegetation of approximately 15 metres wide, between the A23 eastbound carriageway and the highways fence or drainage ditch within/on the edge of Riverside Garden Park. This would very significantly change the character of the edge of the park and result in open views of the A23 and moving traffic, during the daytime and at night.
- 6.59 A localised area of greater vegetation removal approximately 20 metres wide would be required to accommodate the new pedestrian ramp into the western end of the park. Whilst there will be some filtered views through trees and shrubs from the informal footpath which lies parallel to the A23, approximately 20m inside the park, would be most changed whilst views would remain filtered by the remaining vegetation. Receptors would be of high sensitivity to a medium magnitude of change, resulting in a moderate to negligible adverse effect, for the initial part of the construction period, which would not be significant.

Church Meadows, Horley and Public Right of Way 574

- 6.60 Receptors in this location are represented by Viewpoint 21 and photomontages at ES Figures 8.9.77 and 8.9.80 (APP-062). Foreground views across mown and meadow grassland and scattered trees along the River Mole would be retained. Vegetation removal around the road junction and within the roundabout would open up views of the Longbridge roundabout and moving traffic and development beyond at the petrol station and Airport Inn Gatwick hotel. The Longbridge contractor compound would be clearly visible including the tops of the two-storey site office containers above hoardings. There will also be piling works and additional temporary bridges cutting across part of Church Meadows during the construction of the River Mole /A23Brighton Road, road-bridge through to late 2032 when the works are scheduled to be completed. From the evidence provided we are unclear on the proposed access to the works compound which makes it problematic to understand the impact of vehicles and plant to and from the compound during the construction period. People using the public open space and walkers using the public right of way are receptors of high sensitivity and would experience a moderate magnitude of change resulting in a moderate adverse effect during the day and in our opinion night with the additional site lighting.
- 6.61 Once the two sets of bridge works over the River Mole and works to Longbridge roundabout are completed in the later part of the construction phase 2030-32, restoration works will be undertaken by the proposer. This will include re-landscaping and replanting in Church Meadows and a new wooded footbridge over the River Mole. The Environmental Assessment (APP-033) undertaken by the Applicant suggest that there would be a negligible adverse effect in the long term on the landscape. Whilst that may be the case, to enable the project construction there would be a very significant depletion in the mature tree and current planting. This would take 20-30 years to recover. Whilst it will be for the

decision maker to balance the impact of the works with their long-term need, the outcome will be an urbanising effect of this area which to date has been kept back through Local Plan policies.

Footway at Longbridge Roundabout

- 6.62 Receptors in this location are represented by Viewpoint 20 and photomontages at ES Figures 8.9.73 to 8.9.76 (APP-062). Construction activities associated with the Longbridge roundabout are anticipated to be completed by the start of the construction period 2030-32 and the junction would be operational. The Applicant has stated that the 'planting is likely to be up to six years old and, whilst relatively immature, would start to provide some softening of the new highway layout and screening across the junction to the settlement edge of Horley.' Whilst this may be possible with appropriate management, exact details of what is to be provided is unknown. Furthermore, whilst there might be some softening to the landscape associated with the new planting, it will take many more years for new trees to mature to replace the mature trees that would be lost.
- 6.63 North of Longbridge roundabout, whilst there are proposals to improve Church Meadows, the overall thinning effect would result in the traffic, signage and lighting being more prominent for many years. The new junction arrangement would result in an intensification of highway features, views would be gained in the context of a busy road junction. Pedestrians using the roadside footway are receptors of medium sensitivity and would experience a medium magnitude of change resulting in a moderate adverse effect during the day and at night. This will continue into the operational phase and will only be partially mitigated once the planting fully matures.

Walkers Using Public Rights of Way

Sussex Border Path 362a, Railway Overbridge

6.64 Vegetation removal for the significant surface access construction programme would start towards the end of the initial period c2028/2029 and last through to the end of the construction period in 2032. Mature woodland would be removed from the north side of the A23, exposing open views of moving traffic. Walkers would also gain views of the Gatwick campus including associated hotel construction and intensification of the built form at the South Terminal including the construction of taller buildings. Receptors would be of high sensitivity to a medium magnitude of change, resulting in a moderate adverse effect. The construction compound at car park B is anticipated to be established at the end of the initial period but would remain until late 2032 and would include raised temporary buildings which would remain visible for at least 3 years. The trees and vegetation would take many years to full recover and until that happens the rural character of the landscape will be lost. Moreover, the new buildings on the Gatwick Campus would result in a more intensive urban form which would remain visible once the project is completed.

Sussex Border Path 368, M23 Spur

6.65 All of the highway planting along this path would be removed at the end of the initial period, 2024-29, to enable construction activities for the surface access alterations to the M23 Spur. The strip of mature oak trees besides the footpath would be retained during construction. Open views of traffic on the M23 Spur would be gained. Restoration of the

landscape and the maturing of the replacement vegetation and for new trees to mature would take until at least 2047. Walkers are receptors of high sensitivity and would experience a low magnitude of change resulting in a minor adverse effect during the day and at night, during the construction works and the longer term until when the vegetation has fully recovered.

Cyclists

- 6.66 National Cycle Route 21 Cyclists would gain views of the construction phase railway bridge works as approach the A23 London Road Tunnel from Horley. Cyclists would be of high sensitivity to a low magnitude of change, resulting in a minor adverse effect, which would not be significant. The construction compound at Car Park B would be established at the end of the Initial period 2024-2029. Cyclists would gain glimpses through trees and airport infrastructure of hoardings and site offices in this location, in place of parked cars.
- 6.67 Vegetation removal for surface access alterations would be visible from the cycleway within and approaching Riverside Garden Park. Views of traffic and construction infrastructure would be visible, filtered through the remaining trees within the park and along Gatwick Stream. Receptors would be of high sensitivity to a low magnitude of change, resulting in a minor adverse effect, for the construction phase. Once the bridge and embankment works are completed and car park B works compound has been removed and the former car park planted up towards the end of the construction period 2030-32, over the coming years as the vegetation becomes more mature cyclists will experience a minor adverse effect during the day and night.

Occupiers of Residential Properties with Private Views

Three Apartment Buildings, Longbridge Road, Horley

- 6.68 Six ground floor, six first floor and six second floor apartments within three blocks of threestorey buildings are located on Longbridge Road. Properties have elevations to the southwest and north-west. Existing views comprise mature trees and woodland on the banks of the River Mole, with glimpses of the Longbridge roundabout and traffic beyond. Whilst mature trees within the garden around the properties would be retained. Extensive vegetation and tree removal at the junction and on A23 Brighton Road and the construction of temporary roads beside the River Mole bridge on the Brighton Road would commence at the end of the Initial period and would continue into the Construction period 2030-32.
- 6.69 Whilst some vegetation would be retained to the west, the effectiveness of the screening will be significantly diminished during the construction period and will take many years to recover. Construction activities including the piling and bridge works would be clearly visible, along with filter and screen most views of the junction, traffic, development and clearer views of the petrol station on the A23 Brighton Road.
- 6.70 Occupiers of second floor properties would potentially gain the most open views, with occupiers of ground floor properties experiencing less change in view. Occupiers of residential properties are receptors of high sensitivity and would experience a medium magnitude of change resulting in a moderate adverse effect during the day and at night,

both during the construction period 2030-32 and then until the tree cover has had time to recover from the works and new plants have had time to mature.

Numbers 74, 76, 78 and 80 Longbridge Road, Horley

6.71 A row of single storey detached properties with rear elevations orientated towards the Gatwick Stream, Riverside Garden Park and the A23 are located on Longbridge Road. Existing views comprise mature trees and woodland on the banks of the Gatwick Stream, with glimpses of the A23 and traffic beyond. Mature trees within the gardens and between the properties and Gatwick Stream would be retained. Vegetation removal between Gatwick Stream and the A23 to accommodate the proposed footpath ramp and the construction of temporary roads beside the River Mole bridge on the A23 London Road would commence at the end of this period. Sufficient vegetation would need to be retained south-west of some of the properties to continue to filter and screen some views of the A23 London Road and traffic. Where gardens contain limited mature vegetation and where there are gaps in trees beyond the gardens, views of the A23 London Road, traffic and the Holiday Inn and Airport Inn Gatwick would be more open. Occupiers of residential properties are receptors of high sensitivity and would experience a low to medium magnitude of change resulting in a moderate to adverse effect during the day and at night, during the construction period.

Horley Residential Edge

- 6.72 Receptors in this wider location, not specifically referred to above, are represented by Viewpoint 7 and photomontages at ES Figures 8.9.25 to 8.9.28 (APP-061). Construction activities associated with the A23 are anticipated to be completed early in the Construction period 2030-32 with the road operational throughout the period and beyond. Significant removal of highway screening vegetation and trees and scrub running much of the length of Riverside Garden Park would reveal views of the A23 North Terminal and South Terminal junctions including flyovers, moving traffic and lighting through retained vegetation within the park and also garden vegetation and fences within a range of nearby properties on several roads on the fringes of Horley. New woodland edge planting would replace some of the vegetation removed for construction purposes and is likely to take up to six years before the new woodland will filter and screen some views. Properties include:
 - approximately 40 properties on The Crescent;
 - approximately 30 properties on Riverside;
 - two properties on Woodroyd Gardens;
 - four properties on Cheyne Walk; and
 - 11 properties on Longbridge Road.
- 6.73 The increase in engineered features such as flyovers, retaining walls and noise barriers at South Terminal and North Terminal roundabouts, as well as the significant tree removal to take place for the new North Terminal road and junction onto the A23 Brighton Road would form an intensification of infrastructure within views, visible through remaining vegetation. The degree of visibility would depend largely on the amount of vegetation in Riverside Garden Park and tree and shrub vegetation within the gardens of properties. At night the lit corridor would be visible, filtered through vegetation against a backdrop of skyglow from the airport. Receptors at many properties listed above are unlikely to

experience a perceptible change in view in the summer due to the screening properties of intervening vegetation when in leaf. The levels of effect defined below relate predominantly to winter views. Occupiers of residential properties are receptors of high sensitivity to a generally negligible magnitude of change in the long term, resulting in a moderate adverse effect, during the day and at night, Significantly the vegetation buffer between Horley and the A23 and Gatwick would be noticeably reduced, and the urbanising effect would be contrary to the Reigate and Banstead DMP policy NHE1.

Number 275 Balcombe Road

6.74 A detached single storey property located on Balcombe Road, north of an access track which runs parallel to the M23 Spur. The side elevation is orientated south towards the M23 Spur Mature trees and shrubs surround the garden boundaries. Existing views extend across lawns and over garden vegetation to lines of mature trees beside the access track and shrubby planting on the embankment slope of the M23 Spur. Removal of highway planting would commence at the end of the Initial period and the Balcombe Road bridge widening works would commence being completed in the construction period 2030-32. Traffic using the M23 Spur would be partially visible through garden vegetation and trees. Occupiers of residential properties are receptors of high sensitivity and would experience a low magnitude of change resulting in a minor adverse effect during the day and at night, for the short term.

Meadowcroft House

6.75 Occupiers of the office building at Meadowcroft House on the southern edge of Horley would lie immediately adjacent to the contractor compound (T1) for the South Terminal roundabout improvements. Although trees and hedgerows along the northern boundary of the compound would be retained and protected during the construction phase to ensure a screen is maintained to minimise any visual effect and there would remain mature boundary vegetation within the ground of the property during the winter taller infrastructure and activities would be prominent as discordant additions to views, in place of the horse paddocks. The compound itself would include a large concrete batching plant and two storey high worker accommodation units. Lighting would also be visible in winter against a backdrop of existing lighting columns at the South Terminal roundabout. Occupiers of the property are receptors of low sensitivity to a significant magnitude of change resulting in a significant adverse level of effect during the day and at night.

Railway

6.76 Occupiers of trains on the railway would gain near, relatively open views of the construction compound at car park B and brief, filtered views through rail side vegetation in winter only of the South Terminal Works compound. Other developments that would be visible during construction. Passengers would be of low sensitivity to a low magnitude of change, resulting in a minor adverse effect, which would not be significant.

Operation Phase Impacts

6.77 From a methodology perspective, the JSCs are now broadly content with the viewpoints selected within the LVIA.

Positive

6.78 The JSC's have identified no positive impacts during this phase.

Neutral

6.79 The JSC's have identified no neutral impacts during this phase.

Negative

- 6.80 Should the DCO be approved, the additional flights from Gatwick over the Surrey Hills National Landscape (SHNL) and protected Area of Great Landscape Value, would harm the tranquillity of these areas due to noise from more aircraft and would be at odds with the ANPS. Questions also remain around the extent to which the tranquillity requirements of and impacts on the SHNL have been assessed and taken account of both for the current SHNL boundary and the future expanded designation.
- 6.81 An assessment of the visual impacts of the proposed project reveals the urbanising effect of the proposal and the highways elements specifically. Where landscaping can be introduced following the highway and associated bridge works and realignment of Longbridge Roundabout, the timescales stated by the Applicant for restoration significantly underestimate the time it takes for a tree to reach maturity. The existing green buffer between Horley, the M23 Spur/A23 London Road provides an important visual and tranquillity barrier and would be substantially diminished resulting in a very significant urbanising effect. This will have varying degrees of impact on different receptors and for different time periods. The road and bridge construction impacts will be brutal on the visual amenities, and it won't be until the late 2050's when the new tree lines have fully reached maturity that an equivalent landscape will be returned to the Surrey/West Sussex border from the current green barrier. This is contrary to the Reigate and Banstead DMP Policy NH1 though it will be for the decision maker to consider the need for the surface access changes and airport alterations in accordance with the NPS-NN and ANPS.
- 6.82 For Mole Valley there are a number of direct and indirect impacts on the landscape which are of concern.
- 6.83 Gatwick Airport lies only about half a kilometre to the south east of Charlwood and while the village retains a strong local character, nestling in the countryside and retaining a wealth of historic development among more modern infill, expansion plans and the increased flights will impact on the tranquillity of the village and beyond. Much of the village and its western fringes are designated a Conservation Area and will also experience negative impacts from the increased flights and associated noise.
- 6.84 Concerns regarding the proposed 'end-around' taxiways and the new Juliet holding spur both bring taxiing aircraft closer to existing residents and while this doesn't directly use additional land, the tranquillity impacts on the landscape is increased both acoustically and visually particularly for Charlwood who are located closest. While the Applicant suggests it has sought to address this issue following comments made in the pre-application and consultation stages, it is not clear that this is the case and the MVDC does not agree future impacts have been sufficiently considered or will be mitigated.

- 6.85 For Capel, the current runway of Gatwick Airport lies approximately 6km to the east. When aircraft are using flight paths to the west of the airport, there is considerable noise disturbance which undermines the otherwise quiet, rural character and tranquillity of the village.
- 6.86 Wider noise impacts on the tranquillity of the landscape for further reaching settlements are also considered to have a negative impact on the landscape and to undermine the otherwise rural and open nature of Mole Valley.
- 6.87 When considering the effects on Tranquillity within Nationally Designated Landscapes Appendix 8.3.1 Landscape, Townscape and Visual Impact Assessment Methodology Impact Assessment methodology (APP-109) concludes that up to a 20% increase in daily overflights would have a negligible to minor adverse impact, with the magnitude of change assessed as negligible. We query the judgement that the magnitude of change would be negligible and consider that this needs further justification.
- 6.88 Furthermore, as detailed elsewhere in this LIR, the SHNL is undergoing a boundary review by Natural England, which is anticipated to conclude prior to the end of the DCO examination.
- 6.89 While it is accepted that the Applicant cannot predict the outcomes of the review the scheme has had insufficient regard to the draft revised boundaries and other landscape information that was available in January 2023 and prior to submission. As such, associated modelling and assessments of tranquillity and impact are not comprehensive and therefore not suitably considered in the mitigation.
- 6.90 There are extensive tracts of rural land within Mole Valley and Reigate and Banstead districts which lie close or relatively close to the airport boundary. Visual receptors within a distinctly rural context are represented by Viewpoints 14, 15, 28, 29, 30 and 31. In addition, Viewpoint 32 at Leith Hill (SHNL) is also within a rural context but is outside the main 5km study area. Photowire visualisations for these viewpoints show that the proposed new buildings and infrastructure will be visible within many of these views. Whilst the removal of the tall stack serving the CARE facility from the proposals would be welcomed, there will remain substantial elements of new built form (e.g. up to 32m high hangar, hotels, decked car parks, Pier 7 and fire training ground) which will have varying degrees of prominence in these views; with visibility notably greater in winter. The landscape to the north-west of the airport boundary, in the vicinity of Charlwood, has considerable time-depth and valued features such as numerous mature trees within field boundaries. The Surrey Historic Landscape Characterisation identifies this area as comprising 'medium to large regular fields with wavy boundaries (late medieval to 17th/18th century enclosure)'. The proposals will materially increase the density and massing of built development within the airport boundary and will have a clear urbanising influence on these views, which will be harmful to visual amenities and the aesthetic and perceptual aspects of landscape character within the area, including the relative sense of openness and tranquillity. Due to the height of many new buildings and infrastructure (in excess of 25m) it would not be possible to substantially mitigate this urbanising influence on views through the introduction of new or replacement screening planting and other green infrastructure.

- 6.91 Whilst the LVIA typically predicts minor or negligible adverse effects on receptors at individual viewpoints and landscape character areas within these areas, it is contended that given the number of locations which will experience adverse visual effects from the proposals, when considered cumulatively this arguably represents a significant adverse overall effect on visual receptors within Surrey.
- 6.92 We question the Applicant's overall approach to the visualisation of development proposals, as some of the visualisations within the Environmental Statement: Landscape, Townscape and Visual Resources Figures (Parts 2 (APP-061) and 3(app_62)) are considered potentially misleading. The Applicant has produced individual photowire line visualisations showing combined elements from both the construction and operational phases of the Project superimposed onto existing baseline viewpoint photography. For a number of viewpoint locations where existing vegetation is being removed, this approach to visualisations is considered inappropriate and potentially misleading, as it shows the outlines of construction and operational elements in the context of existing vegetation, which is to be removed and in reality, will not be present in the view. Visualisations produced for LVIAs typically show a development at specific timescales, e.g. construction, operation Year 0 and operation Year 15. In this case, the Applicant has chosen not to follow this approach, but rather, has chosen a combined approach which does not represent specific timescales, and is therefore considered potentially misleading for a number of viewpoints, e.g. Viewpoints 7, 8, 18, 19, 20, 21, 22a, 22b, 23, despite the use of separate solid and hatched lines denoting, respectively, visible and hidden massing outlines. Furthermore, the Applicant's decision to use the more simplistic photowire visualisation rather than full photomontages means that future changes to vegetation within the view (e.g. as replacement planting matures) cannot be shown on the integration of green infrastructure and building greening; not only to help screen, soften and integrate new development within townscape and landscape views but to contribute positively to climate change mitigation, biodiversity and enhance legibility and the overall airport visitor experience.

Required Mitigation

- 6.93 The reduced vegetation buffer from Longbridge roundabout to the junction of the M23. M23 spur will need to be replaced in agreement with the local planning authority. If the scale of planting cannot be achieved on the proposed replacement land or on the adjoining sites, planting will need to be undertaken elsewhere.
- 6.94 Should additional planting be required to make up for any shortfalls from what is currently present, replanting elsewhere should be in agreement with the local authority and county council.
- 6.95 Due to the loss of tranquillity in the Surrey Hills National Landscape (SHNL), the Applicant should provide details of new planting to compensate for the loss. This should be located within the National Landscape. Sufficient modelling and assessment should be undertaken on the revised SHNL boundaries to ensure that all impacts have been regarded and mitigation mechanisms implemented for the larger landscape area.
- 6.96 The use of bunds to offset the impacts of the new Juliet Holding Spur and 'end-around' runway has been mentioned (APP-173, APP-176) but full calculations and assumptions would need to be published to demonstrate effectiveness. Further commentary and

detailed assessments must be provided to demonstrate the design and performance of the proposed barriers throughout all the years of the development.

- 6.97 Whilst the Outline Landscape and Environmental Management Plan shows details of tree and vegetation removals along the Surface Access Corridor (A23/M23), there is a lack of equivalent detail on removals within the airport boundary. For example, the proposed new hangar and Larkins Road re-alignment within the North-western Zone (Figure 17, Design & Access Statement Part 3 (APP-255)) appears likely to necessitate removals of mature oak trees, but there is no detail on likely impact and mitigation/compensation.
- 6.98 Overall, the Project will result in extensive losses of existing trees and other green infrastructure which currently provide multi-functional benefits to residents, including through their role as ecological habitats and as a visual, noise and pollution buffer between the edge of Horley and the A23, M23 and airport. Much of the vegetation to be lost comprises mature, deciduous trees, tree blocks and belts. Whilst the Project provides for replacement planting, there will be a long-term vegetation 'deficit' of at least 15 years during which there will be ongoing harm to visual and landscape receptors, including through open views of construction compounds, tall plant, machinery and new airport buildings and infrastructure whilst replacement planting matures. Due to the temporal deficit, such harm cannot be mitigated through replacement planting alone and therefore compensation for the losses of trees and green infrastructure is required. Whilst the proposed Environmental Mitigation Areas are welcome, we would question whether these, together with replacement planting, would suitably mitigate for the long-term adverse effects of the Project on landscape and townscape character, visual amenity and green infrastructure within the locality; particularly as some of the mitigation areas would not be completed until many years after the commencement of the Project. As set out in the Ecology chapter we therefore request financial contributions from the Applicant to a landscape and ecology enhancement fund for off-site projects, to be secured via Section 106 legal agreement.
- 6.99 Additionally, we would expect the order to provide for the acquisition of existing open space land, only once a scheme for the provision of the open space land has been implemented to the local planning authority's satisfaction. This is clearly not the case with the scheme as replacement land at Car Park B and Longbridge Roundabout Mitigation areas, will only be delivered once these sites are no longer required as construction compounds.

Requirements and Obligations

Summary of impacts – Landscape and Visual impact						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
LV1	Longbridge Roundabout works urbanising rural location	C	Negative	Details of the access route to the works compound need to be identified along with measures to minimise harm to visual amenities	Airports- NPS para .218	
LV2	Woodland Belt Longbridge Roundabout	C/O	Negative	Remaining tree and vegetation buffer will require additional replanting following the works but will take many years to recover. Detail on replanting will need to be agreed with LPA/ Highways Authority	Airports- NPS para .218 RBBC DMP Policy NHE1 MVDC LP (2000) Policy ENV4 and ENV23. MVDC Future LP Policy EN8	
LV3	Significant reduction of vegetation buffer along A23 London Road/ M23 Spur including Riverside Gardens	C/O	Negative	New tree planting will be required along the A23 London Road/ M23 spur including Riverside Garden Park to replace buffer that will be removed for road widening and bridge construction. This will need to be agreed with LPA and Highways Authority	Airports- NPS para .218 RBBC DMP Policy NHE1	

Summary of impacts – Landscape and Visual impact						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
LV4	Harm to seclusion of Church Meadows as a result of Longbridge Roundabout modifications and River Mole bridge works	C/O	Negative	New tree planting and restoration of Church Meadows open space treat as an obligation	Airports- NPS para .218 RBBC DMP Policy NHE1 & OSR1 MVDC LP (2000) Policy ENV4 and ENV23. MVDC Future LP Policy EN8	
LV5	Sussex Border Path 362a Railway Overbridge	C	Negative	Agreement with local authorities on screening during construction	Airports- NPS para .218 RBBC DMP Policy NHE1	
LV6	Sussex Border Path 368 M23 Spur	C	Negative	Agreement with local authorities on screening during construction	Airports- NPS para .218 RBBC DMP Policy NHE1	
LV7	National Cycle Route 21	C	Negative	Agreement with local authorities on screening during construction	Airports- NPS para .218 RBBC DMP Policy NHE1	

Summary o	Summary of impacts – Landscape and Visual impact						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
LV8	No's 74, 76. 78, & 80 Longbridge Road	C/O	Negative	Requirement for 2m fencing between buildings and A23 and agreed replanting with SCC and RBBC	Airports- NPS para .218 RBBC DMP Policy NHE1		
LV9	Meadowcroft House	C	Negative	Relocation of South Terminal Roundabout works compound T1 to alternative location	Airports- NPS para .218 RBBC DMP Policy NHE1		
LV10	Insufficient consideration of revised SHNL boundaries will result on more extensive impacts to tranquillity over wider areas.	0	Negative	Review tranquillity assessments in an up to date context and ensure suitable mitigation is implemented, this could be achieved through other noise mitigation mechanisms. The assessment should be extended to include additional representative locations within the proposed SHNL extension areas.	Airports NPS – para(s) 5.213, 5.216 5.218 and 5.222 RBBC NHE1 MVDC Core Strategy Policy CS13 and EN23 MVDC Future LP Policy EN8		
LV11	Insufficient consideration of tranquillity impact on SHNL	0	Negative	The Applicant to provide further justification for why an increase in overflight of up to 20% is not considered significant, particularly for nationally designated landscapes	NPS-NN and ANPS		

Summary of i	Summary of impacts – Landscape and Visual impact						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
				which are high/very high sensitivity locations			
LV12	Visual and tranquillity impacts of 'end-around' taxiway and Juliet Holding Spur	0	Negative	Further commentary and detailed assessments must be provided to demonstrate the design and performance of the proposed barriers throughout all the years of the development.	Airports NPS para(s) 5.213, 5.216, 5.217 and 5.218 MVDC LP (2000) Policy ENV4 and ENV23. MVDC Future LP Policy EN8		
LV13	Inadequate approach to visualisations	C and O	Negative	We consider it proportionate for the Applicant to prepare fully rendered photomontages for key near and middle distance viewpoints, in order to realistically show the likely changes in these views. Separate photomontages should be prepared for each key viewpoint for the construction, operation (Year 0) and operation (Year 15) timeframes, to realistically show the visual effects of vegetation removals, construction compounds and associated heavy/tall plant, new buildings and	Chapter 8 of the Guidelines for Landscape and Visual Impact Assessment 3 rd Edition (2013) (GLVIA3) and the Landscape Institute Technical Guidance Note 06/19 – Visual Representation of Development Proposals		

Summary of impacts – Landscape and Visual impact						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
				infrastructure and the maturation of replacement planting.		
LV14	Lack of detail on vegetation removal within the airport boundary	C	Negative	oLEMP to be updated to include better consideration of vegetation removal and associated mitigation within the airport boundary		
LV15	Insufficient certainty in relation to the delivery of replacement open space	C and O	Negative	Ordinarily, the Council would expect the order to provide for the acquisition of existing open space land only once a scheme has for the provision of the open space land has been implemented to the local planning authority's satisfaction. Revisions required to article 40		

7. Ecology and Nature Conservation

Current Context

- 7.1 Surrey has one of the fastest declining wildlife populations of any county in England (The State of Surrey's Nature, Surrey nature Partnership 2017). Nature is being increasing confined to small, fragmented areas with little or no connectivity.
- 7.2 Information exists on the biodiversity improvement priorities within the county. The most important areas for wildlife conservation remaining in Surrey have been identified through the Surrey Biodiversity Opportunity Area (BOA) Policy Statements (Surrey Nature Partnership, 2019). BOAs are recognised as those areas where targeted maintenance, restoration and creation of priority habitats will have the greatest impact in improving connectivity and reducing habitat fragmentation.
- 7.3 SCC, RBBC and MVDC work closely with the River Mole Catchment Partnership, which brings together a range of organisations to improve the health of the catchment's rivers. The partnership is co-hosted by Surrey Wildlife Trust and the South East Rivers Trust. Key issues for the catchment are identified as:
 - Water quality
 - Barriers to fish movement
 - Low flows
 - Invasive Non-Native Species (INNS). (The most common are Himalayan Balsam, Floating Pennywort, American Mink, Signal Crayfish)
 - Flooding
 - Development
- 7.4 Under the current S106 between the Applicant and the local authorities, GAL provide up to £12,500 per year to the Gatwick Greenspace Partnership (GGP). This is a community project that works to benefit people, wildlife and the countryside. It is one of Sussex Wildlife Trust's projects and since 1994 has been working across some 200 square kilometres of countryside and in the adjacent towns of Reigate, Dorking and Horley, in Surrey and Crawley and Horsham in Sussex, with Gatwick Airport in the middle.
- 7.5 The GGP works with many individuals, groups and organisations and receive core funding from the following partners:
 - Surrey County Council
 - West Sussex County Council
 - Crawley Borough Council
 - Horsham District Council
 - Mole Valley District Council
 - Reigate and Banstead Borough Council
 - Horley Town Council
 - London Gatwick Airport

7.6 The Applicant's funding is conditioned to only be payable if a minimum of £25,000 is contributed annually by the local authorities collectively.

Policy Context

National

Airports National Policy Statement (ANPS) (2018)

7.7 The Airport NPS 2018 sets out that the Applicant should show how the project has taken advantage of and maximised opportunities to conserve biodiversity and geological conservation interests. It continues that the environmental assessment should identify how ecological networks and their physical and biological process will be maintained.

National Policy Statement for National Networks (NPSNN) (December 2014)

- 7.8 Paragraph 5.175 states; 'Where networks of green infrastructure have been identified in development plans, they should normally be protected from development, and, where possible, strengthened by or integrated within it. The value of linear infrastructure and its footprint in supporting biodiversity and ecosystem should also be taken into account when assessing the impact on green infrastructure.
- 7.9 Paragraph 5.187 states;' Noise resulting from a proposed development can also have adverse impacts on wildlife and biodiversity.'
- 7.10 Paragraph 5.25 continues: 'As a general principle, and subject to the specific policies below, 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.'

National Planning Policy Framework (NPPF) (December 2023)

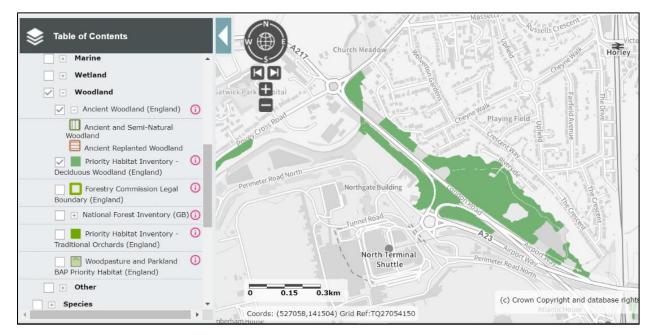
- 7.11 Paragraph 180 seeks to contribute and enhance the natural environment. Paragraph 186 states 'When determining planning applications if significant harm to biodiversity resulting from development cannot be avoided (through locating on an alternative site with less harmful impacts) adequately mitigated, or, as a last resort compensated for, then planning permission should be refused.'
- 7.12 Paragraph 180 'Planning Policies and decisions should contribute to and enhance the natural environment by:
 - d) minimising impacts and providing net gains for biodiversity, including by establishing coherent networks ecological networks that are more resilient to current and future pressures'
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil,

air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans

Natural Environment and Rural Communities Act (NERC) Act 2006

7.13 The DEFRA Magic tool provides a map of primarily natural assets in England. The area around Longbridge Roundabout (Figure 7.1) through Riverside Garden Park is identified as Deciduous Woodland (England), which is a Habitat of Principal Importance (HPI) under Section 41 of the Natural Environment and Rural Communities Act (NERC), 2006. Under the extended Biodiversity Duty (which came into force January 2023), all public authorities have a duty to conserve and enhance biodiversity, including those habitats and species listed under section 41 of the NERC Act, 2006.





Local

Mole Valley District Council

- 7.14 Mole Valley is a very biodiverse district because of its varied geology that in turn produces different soil conditions, plant communities, topography and drainage patterns. The resultant habitats, and the species that depend on them, are important internationally, nationally and locally, reflected in formal designations designed to protect them. The heritage of wild flora and fauna, together with their habitats and geological and physiographic features in rural and urban areas, is important to the character, interest and general health of the district.
- 7.15 In proximity to the airport is a Local Nature Reserve at Edolph's Close to the north of Charlwood which is managed partly for educational objectives as well as the notable areas of ancient woodland (Figure 7.2), both at Charlwood and on the boundary of the application area on Charlwood Road. The ecological networks which flow, not just near the

airport but across the district and borders are of relevance and those closes to the airport should not be seen in isolation when looking at impacts and mitigation mechanisms.

7.16 All planning policies regarding ecology and natural capital for Mole Valley ensure that development which would prejudice nature conservation interest will not be permitted and recognises the importance of local wildlife habitats and supports positive proposals for protection, management and habitat creation.

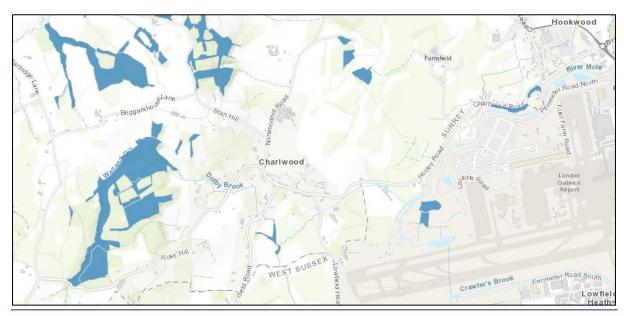


Figure 7.2: Ancient Woodland North West of Gatwick

Source: DEFRA

Adopted Mole Valley Local Plan

- 7.17 The River Mole runs through Gatwick Airport and therefore Policy ENV8: The River Mole, The Tilling Bourne and The Pipp Brook of the adopted Local Plan (2000), is of relevance. The policy is in place to ensure that the Council can refuse development which would have a significant or adverse effect on fisheries, the nature conservation, landscape and recreational value of the River Mole, the Tilling Bourne, the Pipp Brook and other areas of open water. This policy recognises that river corridors are of great importance and water related recreation deserve conservation, restoration and enhancement where appropriate.
- 7.18 Policy EN11: Local and Non-Statutory Nature Reserves seeks to avoid development within or which would have a significant adverse effect on designated Local and Non-Statutory Nature Reserves, unless there are reasons which clearly outweigh the need to safeguard the intrinsic nature conservation value of the site.
- 7.19 Policy ENV12: Sites of Nature Conservation Importance and Potential Sites of Nature Conservation Importance – works to keep damage of such sites to a minimum and avoids permitting development unless it can be clearly demonstrated that there are reasons for the proposal which outweigh the need to safeguard the nature conservation value of the site.
- 7.20 Policy ENV13: Features of Local Importance for Nature Conservations safeguards sites and features of natural importance and which contribute to natural heritage. ENV13 works

in tandem with ENV14: Enhancement, Management and Creation of Nature Conservation Features which is supportive of the creation and management of sites and areas with conservation value.

- 7.21 Policy ENV15: Species Protection, ENV16: Regionally Important Geological/Geomorphological Sites – both work to prevent harm to relevant natural assets and in the case of developments which may impact protected species or habitats, an appropriate investigation must take place to inform proposals and identify potential mitigation.
- 7.22 The Core Strategy (2009) makes provision to protect and enhance biodiversity and areas of geological importance but, with Policy CS15: Biodiversity and Geological Conservation.

Future Mole Valley Local Plan

- 7.23 The emerging Mole Valley Local Plan (2018-2033), once adopted, will set ecology related policy within the context of current initiatives such as Biodiversity Net Gain (BNG) and uses Natural Capital as the collective term for the natural assets of air, geology, soil, water and living things.
- 7.24 Policy S5: Retaining and Investing in Natural Capital establishes an underlying strategic approach to retaining and investing in natural capital to protect existing habitats and species, create opportunities for new habitats, join these habitats to create landscape-scale networks and work in partnership with other organisations in order to achieve these objectives, including the development industry.
- 7.25 Policy EN9: Natural Assets primarily focuses on biodiversity which is the variety of life within species, between species and of ecosystems and is most commonly measured as species richness. The policy is set against alarming trends in the loss of species and natural habitats globally, nationally and locally (State of Surrey's Nature Surrey, 2017). The aim of the policy is to move away solely from conservation and management of existing, designated wildlife sites, which are often isolated and disconnected, to species-led protection. This requires better investment in areas with the greatest ecological potential (Biodiversity Opportunity Areas), providing protection to non-designated sites as well as the protecting and managing existing wildlife sites; what the Lawson Review (Making Space for Nature, 2010) referred to as 'more, bigger, better and more joined up'.
- 7.26 The policies of the emerging Local Plan work in tandem with other policies, such as those relating to landscape and recognise the interdependency of all types of natural capital in terms of maintaining, enhancing and creating rich environments. The policies are ambitious and justified in requiring 20% BNG, which is above the national requirement of 10%, as well as setting out how woodlands, trees, designated sites and geology should all be treated and considered in development.
- 7.27 They also work in collaboration to require that any development applications within or adjacent to Biodiversity Opportunity Area's (BOA) must be accompanied by an assessment of the potential impact on the overall aims, specific objectives and known biodiversity interests therein, as reflected in the Policy Statement for the Biodiversity Opportunity Area concerned.

Reigate and Banstead Borough Council

Local Plan

- 7.28 Core Strategy Policy CS2: Values landscapes and the natural environment seeks to retain and enhance as far as practicable a coherent green infrastructure network and that the Council will work with a range of partners to promote, enhance and manage a substantial network of multi-functional green infrastructure.... to maximise, the social, economic and environmental benefits of the borough's green fabric.
- 7.29 Development Management Policy NHE2: Protecting and enhancing biodiversity and areas of geological importance seeks to retain and achieve a net gain in biodiversity.' The policy is supported by the Green Infrastructure Strategy and Action Plan 2017 (currently being updated). Riverside Garden Park is an intrinsic element of the Riverside Green Chain around Horley.
- 7.30 DMP Policy NHE3: Protecting Trees, woodland areas and natural habitats requires an assessment of trees and landscape features for new development proposals. Paragraph 2 states that; 'Development resulting in the loss of or deterioration in the quality of a protected tree or hedgerow ... will be refused unless the need for, and benefits of, development in that location clearly outweighs the loss. Paragraph 3 goes on to state; 'Unprotected but important trees, woodland or hedgerows with ecological, amenity or other value should be retained as an integral part of the design...' Paragraph 4 continues;' Where loss of features prescribed in 2 and 3 above are permitted, this will be subject to adequate compensatory provision commensurate to that which is lost.' 'Where replacement trees and hedge planting is required, appropriate species of trees should be used and sufficient space must be provided at the design stage for tree provision.' DMP Policy NHE4: Green and blue infrastructure sets the policy context for retention and replacement of public open space and avoidance of adverse impacts on existing habitats. Paragraph 3 identifies the types of suitable uses in the Riverside Green Chain which includes enhancements to the riverine environment.

Tandridge District Council

Local Plan

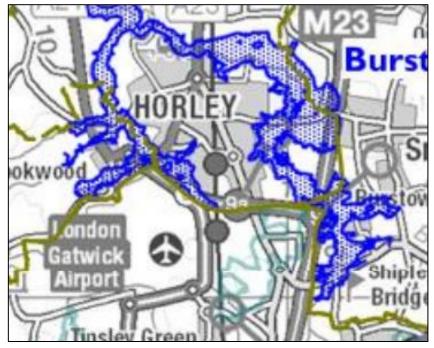
7.31 DMP Policy NHE3 Protecting trees, woodland areas and natural habitats is a borough wide tree protection policy. Paragraph 1 states: 'Where relevant, new development proposals will be required to include an assessment of existing trees and landscape features on site, including their suitability for retention. This assessment should also include consideration of the impacts on habitats beyond the site boundary. Paragraph 2 Development resulting in the loss of or deterioration in the quality of a protected tree or hedgerow...will be refused unless the need for and benefits of development in that location clearly outweigh the loss. This will be assessed on a case-by-case basis commensurate with the value of the feature.'

Surrey County

Biodiversity Opportunity Areas

- 7.32 Within Surrey, the DCO scheme falls within BOA R05: River Mole (& tributaries) Figure 7.3), which includes the River Mole, its major tributaries and associated Flood Zone 3 from the county boundary at Crawley to its confluence with the River Thames. More locally the BOA straddles the boundaries of MVDC and RBBC boundaries at Horley and Hookwood and then TDC into Smallfield and Burstow.
- 7.33 The aim of Biodiversity Opportunity Areas (BOAs) is to establish a strategic framework for conserving and enhancing biodiversity at a landscape scale, making wildlife more robust to changing climate and socio-economic pressures.

Figure 7.3: BOA R05: River Mole (& tributaries)



Source: Surrey County Council/Surrey Nature Partnership

- 7.34 The Policy Statement sets out objectives for priority habitat restoration and creation of the following type:
 - Floodplain grazing marsh
 - Wet woodland
 - Rivers (in channel/bankside habitat creation)
 - Meadows
 - Reedbeds
- 7.35 The Policy Statement also identifies objectives for priority species recovery. This aims for evidence of at least stabilisation and preferably recovery in the local populations of listed Priority species Marsh stitchworth, Otter, Harvest mouse, Brown trout, Water vole, European eel.

Local Nature Recovery Strategy

7.36 Local Nature Recovery Strategies are a new statutory commitment from the Environment Act, 2021. These will be key in helping to build a Nature Recovery Network. Surrey County council is the responsible authority for the Surrey LNRS. The strategy is emerging at present but once complete, will become a spatial strategy for nature to guide funding decisions and enable the delivery of multi-functional benefits in priority areas. LNRS will be heavily based on BOAS and within Surrey we would be keen for NRP related habitat creation and ecological enhancements/offsetting to take place within BOAs.

Construction Phase Impacts

Positive

7.37 The JSC's have identified no positive impacts during this phase.

Neutral

7.38 The JSC's have identified no neutral impacts during this phase.

Negative

- 7.39 Ecological impacts will extend beyond the project site boundary 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 airport, 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.
- 7.40 Overall, the Project will result in very extensive losses of existing trees, shrubs and grassland which currently provide ecological habitats as well as green / wildlife corridors connecting the wider landscape. The amount of loss and replacement is also not quantified within the Environmental Statement. Whilst the Project provides for replacement planting, there will be a long-term vegetation 'deficit', resulting in biodiversity loss for at least 15 years. This contradicts current biodiversity policy which focuses on nature recovery and biodiversity net gains. This impact could be mitigated by provided off-site habitat replacement upfront and could be designed to prioritise objectives with the River Mole BOA and Surrey LNRS.
- 7.41 During construction there will be impacts on specific protected species. The ecology chapter for the ES Chapter 9 (APP-034) para 9.6.97 states: 'A total of 43 trees within the surface access improvements boundary were identified as having bat roost potential and of these 36 would be lost. They comprised nine with High roost potential, 28 with Medium roost potential and six with Low roost potential'.
- 7.42 No bat roost surveys of 'high' or 'medium' trees proposed for removal have been carried out to inform the baseline and impact assessment. This contravenes policy in relation to protected species. ODPM circular 06/2005 states: '*The presence of a protected species is a material consideration when a planning authority is considering a development proposal*

that, if carried out, would be likely to result in harm to the species or its habitat......It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted'. The absence of surveys is of concern to the authorities. Roosts of rare Bechstein's bat have been recorded within trees within the site. As such, there could be additional roosts located along the A23. Without the results of these required surveys, it is unknown whether impacts upon bats have been appropriately addressed or whether the amount of mitigation proposed is suitable.

- 7.43 Great crested newt (GCN) and reptile populations are present on site and a translocation exercise is required to mitigate for adverse impacts to these populations. The application documents provide no detail on:
 - The location of the receptor site;
 - An assessment of the receptor site suitability (i.e. do the receptor site already support amphibians and reptiles);
 - Outline methodology and timescales;
 - How conflict caused by recreational use will be mitigated / managed; and
 - Additionality in relation to BNG.
- 7.44 It is non-standard for a site if this size and scale to not have included this information and as such, there is huge uncertainty as to whether impacts upon reptiles and GCN have been adequately addressed. Furthermore, it is unclear whether there is a suitable receptor site to translocate these species to. An outline mitigation strategy for these species is required along with information on the proposed receptor site(s). Furthermore, the ecological mitigation areas are also proposed for public open space, with no consideration about how the increased / new recreational use of these areas may impact upon protected species.
- 7.45 In relation to Biodiversity Net Gain (BNG), the application provides no information on 'additionality'. To achieve BNG, proposals must be additional. With regards to habitat creation / enhancement for protected species, this cannot be counted towards achieving 10% BNG. The BNG must be additional, and not include the required mitigation for protected species. This further emphasises that this application is not achieving net gains for biodiversity.

Operation Phase Impacts

7.46 The BNG assessment for the application has used non-standard methodology by excluding the areas of the site where habitat will be retained. As such, the baseline value of the site in BNG units is lower than what it would be, should all areas within the site have been included. Whilst it is appreciated that this methodology has been used in other airport expansion DCOs, it does not adhere to industry standards and guidance for BNG. DEFRA updated the BNG Statutory Guidance on 22nd February 2024 confirming the point that the entirety of a site should be considered '*Developers in England are required to provide 10% BNG on all habitats within the redline boundary of their development, whether or not they are impacted*'. The Project should be demonstrating 'net gains' in line with the NPPF.

- 7.47 It is therefore incredibly misleading to state that this application is achieving BNG. In actual fact, should the application have followed approved industry methodology, the proposals are likely to have been found to cause a net loss in biodiversity under the BNG metric. BNG for NSIPs is due to be mandated in November 2025. So, although not a legal requirement, the JSCs suggest that due to the long term and large-scale impacts of habitat loss the Applicant should be delivering BNG in the local, regional and national interest.
- 7.48 As detailed in the Natural England Relevant Representation (RR-3223) there is currently insufficient information to assess potential impacts from traffic related air quality upon three SSSI sites within Surrey (Titsey Woods SSSI, Westerham Woods SSSI and Mole Gap to Reigate Escarpment SAC/SSSI). They all show an increase in NOx and nitrogen deposition of over 1% of the critical load/level yet no assessment of potential impacts to these sites have been made. Impacts on the SSIs as a result of changes to atmospheric ammonia levels have also not been considered.
- 7.49 The Applicant's proposed habitat enhancements to the River Mole may not realise their full biodiversity potential due to the presence of non-native invasive species, including Mink. Furthermore, the Applicant's River Mole diversion scheme may aid the spread of non-native invasive species. Controlling the spread of aquatic invasive species is extremely challenging and any mitigation proposed is likely to be ineffective.
- 7.50 The habitat creation / enhancement proposals are vague, and it is unclear how much habitat is provided which will directly contribute to the River Mole BOA. Given the conflict with attracting bird population to the site due to health and safety concerns in relation to bird strike, opportunities for habitat creation / enhancement within the site boundary are extremely limited and any creation of new habitat will be small in comparison to what could be achieved off-site. It is considered offsite creation of these habitats would be more suitable and would be able to provide greater gains in biodiversity with less constraints. There are opportunities to link up woodland copses via hedgerows which should be explored. This would also help towards other protected species mitigation (such as Bechstein's bats).
- 7.51 Onsite Gatwick are already managing some of their verge network for conservation and this is an area of work that could be expanded further to provide benefit to UK pollinators and other species and help green connectivity across the county.
- 7.52 The documents submitted state reedbed, wet woodland, meadow grassland etc. will be created, however they also state that any attenuation pond / features have been designed to dry out (and will not provide a permanently wet feature so as to discourage bird populations). Whilst reedbeds will tolerate fluctuation of water levels, they do need require regular flooding, it is unclear whether the design of the attenuation features would allow for successful establishment. It is also considered that areas of reedbed would be minimal and would perhaps be better describes as marginal planting / reed fringes?
- 7.53 No compensation for the loss of ponds has been included in the application. The reason for this is due to bird strike health and safety considerations. Ponds are a HPI under the NERC Act, 2006 and therefore any loss of ponds should be compensated by replacement ponds off-site.

Required Mitigation

- 7.54 A commitment to continued support for the Gatwick Greenspace Partnership is set out in the Planning Statement (APP-245). It is stated that this will be included within the S106, however it is not included within the initial version shared with the local authorities in February 2024. The JSCs would welcome discussion with the Applicant as to the optimum approach to delivering wider ecological benefits, which should align with LNRS and BOA priorities. Greater detail is required within the S106.
- 7.55 Similarly, continued long term positive management of the two existing biodiversity areas managed by the Applicant (the North West Zone and Land East of the Railway Line) would impact positively on the effectiveness and viability of the proposed mitigation areas. ES Ch. 9 Section 9.6.172 (APP-034) states that '*Positive work through the GAL Biodiversity Action Plan (BAP) is likely to continue* ...', however there needs to be much greater certainty that these two biodiversity areas will continue to be managed for wildlife. The commitment to long term management should added to the Outline Landscape and Ecology Management Plan (oLEMP) (APP-113-116).

Requirements and Obligations

Summary of impacts – Ecology and biodiversity						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
E1	Lack of a landscape scale approach to assessing and addressing ecological impacts	C and O	Negative	Enhancements to green corridors and improved habitat connectivity should extend beyond scheme boundary, along key corridors such as River Mole and Gatwick Stream	NPPF, paras 180,181,185 Emerging LNRS Mole Valley Local Plan ENV8, 13 and 14 Reigate and Banstead Policy CS2	
E2	Loss of mature broadleaved woodland (and other habitats)	C	Negative	It is not clear from the application document how much woodland is being lost and how much is being enhanced/replanted. Additional compensation required for trees/ woodland loss (especially given lag time for newly planted woodland to mature and reach target condition).	Natural Environment and Rural Communities (NERC) Act 2006 NPPF, paras 180,181,185, 186 Mole Valley Local Plan ENV8, 13 and 14 Reigate and Banstead Policy NHE3 Tandridge CSP17	
E3	Unknown impact on roosting bats	C	Negative	No bat roost surveys of 'high' or 'medium' trees proposed for removal have been carried out to inform the baseline and impact assessment. Surveys are required to inform impacts and mitigation / compensation for roosting bats.	Surveys are required prior to determination - Policy in relation to protected species- ODPM circular 06/2005	

Summary of impacts – Ecology and biodiversity						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
					The Conservation of Habitats and Species (amendment) Regulations, 2019, Wildlife and Countryside Act 1981 NPPF, paras 185 and 186	
E4	Lack of information on Great Crested Newt and reptile mitigation	C	Negative	The standard approach would be for an outline mitigation strategy for both reptiles and GCN to be included as part of the application. It is unclear whether residual impacts have been appropriately assessed without having an outline mitigation strategy in place.	The Conservation of Habitats and Species (amendment) Regulations, 2019, Wildlife and Countryside Act 1981 NPPF	
E5	Lack of financial support for Gatwick Greenspace Partnership impacting on delivery environmental schemes around the airport	C and O	Negative	The Applicant should commit to Gatwick Greenspace funding as set out in their Planning Statement	See point E1	
E6	Long term positive management of two existing biodiversity areas managed by the Applicant	C and O	Negative (positive if secured)	Certainty of continued management for wildlife. Inclusion required in the Outline LEMP.	See point E1	
E7	Unspecified approach to management and	0	Positive – if detail provided	Detail on legal mechanism for securing	Compulsory acquisition point	

Summary of impacts – Ecology and biodiversity						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
	maintenance of Longbridge Roundabout and Car Park B Mitigation Area. This includes detail relating to maintenance of the proposed footbridge and path.					
E8	The Applicant's River Mole diversion scheme may aid the spread of non-native invasive species	C and O	Negative	Need for invasive non-native species management plan	NPPF, para 186 Policy ENV8, ENv13, ENV14 MV Local Plan DMP Policy NHE4 Reigate and Banstead	
E9	No compensation provided for loss of ponds	C	Negative	Replacement ponds should be provided off-site – preferably within the nearby Biodiversity Opportunity Areas to maximise ecological opportunities /outcomes. If birdstrike is really a concern, offsite should be considered.	NERC Act 2006 NPPF, para 186 Policy ENV13, ENV14 MV Local Plan DMP Policy NHE4 Reigate and Banstead Policy CSP 17 of Tandridge Core Strategy	
E10	Compensation and enhancement measures will be required to address ecological impacts which will extend beyond the Project site boundary into the surrounding	C and O	Negative	The JSCs request a landscape and ecology enhancement fund to support projects on publicly and privately owned land targeting landscape enhancement. The core Project area would be within 10km of Gatwick Airport.	See Point E1	

Summary of impacts – Ecology and biodiversity					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context
	countryside. Insufficient opportunities for biodiversity enhancement identified.				
E11	Compensation and enhancement measures will be required to address ecological impacts which will extend beyond the Project site boundary into the surrounding countryside.	C and O	Negative	A new role is needed to manage and distribute the Landscape and Ecology Enhancement Fund and to help identify and coordinate the delivery of projects on the ground.	See Point E1
E12	Insufficient consideration of process for environmental monitoring and compliance	C and O	Negative	Reporting of monitoring data should be reported to and reviewed by a steering group. This process must be detailed in the oLEMP.	See Points above

8. Geology and Ground Conditions

Current Context

8.1 The scheme includes significant earth movement, boring and embankment works and landscape reshaping on the Surrey side of the NRP DCO application. Much of this is adjacent to waterways including the River Mole, Gatwick Stream and the existing drainage network. Issues raised in the previous consultations included concerns on effects of the reprofiling of land and resultant land stability, the need to work with local councils on investigative works, the risk of contaminants being mobilised during construction as a result of leaching into groundwater.

Policy Context

National

Airports National Policy Statement (ANPS) (2018)

- 8.2 Paragraph 5.89 considers that: 'The Applicant should ensure that the environmental statement submitted with its application for development consent clearly sets out any likely significant effects on internationally, nationally and locally designated sites of ecological or geological importance, protected species, and habitats and other species identified as being of principal importance for the conservation of biodiversity.
- 8.3 Paragraph 5.91 continues; 'The Applicant should show how the project has taken advantage of and maximised opportunities to conserve biodiversity and geological conservation interests.'

National Policy Statement for National Networks (NPSNN) (December 2014)

8.4 Paragraphs 5.116 to 5.119 covers the issue of Land Instability which can result in landslides, subsidence or ground heave. Failing to deal with this issue could cause harm to human health, local property and associate infrastructure, and the wider environment. The statements set out the requirements for the Applicant's assessment and use of mitigation.

National Planning Policy Framework (NPPF) (December 2023)

8.5 Paragraph 189 requires that a. 'a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation)'. Paragraph 190 continues; 'Where a site is affected by contamination or land stability issues, responsibility for securing safe development rests with the developer and/ or landowner'.

Planning Practice Guidance

8.6 The national PPG includes guidance on land effected by contamination, land stability, minerals, natural environment and water supply, wastewater and water quality.

Local

Mole Valley District Council

Adopted Mole Valley Local Plan

- 8.7 Mole Valley encompasses a variety of different geologies and the complexity of the geology of this part of Surrey gives rise to the variety and visual beauty of the landscape. This in turn has influenced the materials used in vernacular architecture ranging from timber framing, brick and plain clay tiles in the Weald, to flint and slate on the Downs. The use of these materials helps to reinforce the local identity.
- 8.8 The Core Strategy (2009) makes provision to protect and enhance biodiversity and areas of geological importance but, with Policy CS15: Biodiversity and Geological Conservation setting the importance of applying national policy / guidance, the South East Plan Policy NRM5 (Conservation and Improvement of Biodiversity) and the Surrey Biodiversity Action Plan, to guide decisions.

Future Mole Valley Local Plan

- 8.9 The emerging Mole Valley Local Plan (2018-2033), once adopted includes Policy S5:
 Retaining and Investing in Natural Capital and EN9: Natural Assets to manage, protect and enhance geological features and habitats.
- 8.10 The policies work in tandem with landscape policies and recognises the interdependency of all types of natural capital in terms of maintaining, enhancing and creating rich environments. With particular regard to geology, the policy seeks to avoid permitting any proposal which would have an adverse impact on the biodiversity, geological conservation value or integrity of related sites and assets, including their value to the wider network of green infrastructure, landforms and wildlife corridors.

Reigate and Banstead Borough Council

Local Plan

8.11 Core Strategy Policy CS10 Sustainable Development seeks to make efficient use of land, giving priority to previously developed land and buildings. It seeks to minimise the use of natural resources, minimise pollution, support development that mitigates for the effects of climate change, and minimise flood risk. DMP Policy NHE2 Protecting and Enhancing Biodiversity and Areas of Geological Importance includes protection for Regionally Important Geological Sites of which none exist close to the proposed development in Reigate and Banstead. DMP Policy DES8 Construction Management and DES9 Pollution and Contaminated Land seek to integrate a wide range of environmental protection measures into schemes including water.

Tandridge District Council

Local Plan

8.12 Policy DP19 of the TLPP2 relates to Biodiversity, Geological Conservation and Green Infrastructure. It seeks to maximise opportunities for geological conservation.

Surrey County Council

- 8.13 As the Minerals and Waste Planning Authority (MWPA), Surrey County Council plans for a steady and adequate supply of minerals and sufficient facilities to manage waste arising in the county.
- 8.14 The NRP does not fall within a Mineral Safeguarding Area (MSA). Therefore, mineral safeguarding in Surrey is not a material issue and SCC would only expect the DCO application to reference the Surrey Minerals Plan Core Strategy 2011 for the purposes of the Development Plan and the development boundary.

Construction Phase Impacts

8.15 The JSCs do not identify any impact during the construction phase.

Operation Phase Impacts

8.16 Given, SCC's responsibility as the Minerals and Waste Planning Authority for the county, we have particular interest in the Applicant's proposed project changes to the CARE facility. As stated, this LIR does not make further comment on the proposed changes as they have not yet been accepted. The JSCs do wish to highlight that the level of supporting detail in the consultation was very limited and did not include information on areas such as traffic movements and the alternative waste processing approach to be used, meaning that the JSCs were unable to comment on the associated impact.

Required Mitigation and Obligations

8.17 The JSC's do not consider there to be a requirement for mitigation or obligation to address geological matters.

9. Water Environment (SCC Lead Local Flood Authority)

Current Context

- 9.1 Within Surrey the Environment Agency Main Rivers affected by the scheme are the River Mole, the Burstow Stream, the Gatwick Stream, Crawter's Brook and Mans Brook. The Mole catchment is predominantly rural with the exception of the three large urban areas of Horley, Dorking and Leatherhead. The Mole has been realigned around the northern perimeter of the airport and is culverted under the runways and the A23. The Burstow Stream is located to the east of Gatwick and flows round the eastern and northern edges of Horley. The Burstow Stream Tributary is a small channel fed by several drains from agricultural land and road drains. The stream is typically less than 2 metres in width and originates south of Horley as a drain along Balcombe Road and is culverted under the M23. The Gatwick stream is also a tributary of the River Mole.
- 9.2 In terms of fluvial flooding, high water levels are often seen at the Longbridge Roundabout confluence of the River Mole and the Gatwick Stream.
- 9.3 The Mole and its tributaries have experienced widespread flooding in 1968, 1990, 2000 and 2013. Houses in the south of Horley lie in Flood Zone 3, and the villages of Charlwood, Povey Cross and Hookwood are at risk from tributaries. During the flood event in December 2013, Horley and various points along the Mole were impacted. The cause was predominantly a mix of fluvial and surface water flooding following a period of unprecedented rainfall. A feature of this flood was the speed in which the River Mole rose (one foot per hour). Flooding resulted in road closures, including disruption on the A23 and internal property flooding. Local to the NRP scheme boundary, properties in Longbridge Road in Horley have been subject to flooding in the past.
- 9.4 Mole Valley's watercourses are dominated by the River Mole which runs from south-east of the District to the north-west and then on to the River Thames at East Molesey. There are four principal tributaries of the River Mole within the District: Pipp Brook, Tanners Brook, Leigh Brook and Deanoak Brook.
- 9.5 Widespread flooding also occurred in Smallfield and Burstow in November 2022, including internal property flooding. The water table throughout Smallfield and Burstow is less than 3m below the surface, there is high risk of groundwater flooding between the M23 and Burstow, and within the centre and western part of Smallfield village.
- 9.6 As Lead Local Flood Authority, SCC has a duty to investigate flooding incidents. Section 19 reports setting out the results of these investigations are publicly available. In response to these events there are proposals for flood management projects in both Horley and Smallfield. The Smallfield Flood Alleviation Scheme is a £3m DEFRA Grant in Aid scheme based around a combination of property flood resilience and an attenuation lagoon. Property Flood Resilience measures will be targeted at up to 175 properties in the village. Both are currently undergoing business case review.
- 9.7 Horley would also be a DEFRA Grant in Aid scheme, but is in the very early stages of development. The Environment Agency are also carrying out modelling activity on the Burstow Stream at present to update flood risk models for the area.

9.8 The Horley Sewerage Treatment Works is already at capacity with a known history of overflows. Thames Water has acknowledged the issue, and that the facility requires investment. The site is highly constrained which as a result means that no additional flows from Gatwick can be accommodated at the works.

Policy Context

National

Airport National Policy Statement 2018

- 9.9 The APNS acknowledges that there is the potential for airport expansion to result in increased risk from climate change effects, particularly to increased surface water runoff rate and pressure on potable water supply. There may also be effects on groundwater. Applicants should identify and assess the risks of all forms of flooding to and from the preferred scheme, and demonstrate how these flood risks will be managed, taking climate change into account.
- 9.10 The ANPS sets out that mitigation measures will need to be developed as part of the Applicant's application for development consent to ensure that it is safe from flooding and will not increase flood risk elsewhere for the proposed development's lifetime, taking into account climate change. To satisfactorily manage flood risk and the impact of the natural water cycle on people, property and ecosystems, good design and infrastructure may need to be secured using requirements or planning obligations. This may include the use of sustainable drainage systems but could also include vegetation to help to slow runoff, hold back peak flows, and make landscapes more able to absorb the impact of severe weather events.

National Policy Statement for National Networks (NPSNN) (December 2014)

9.11 The National Networks Policy Statement also sets out the need for Flood Risk Assessments and that approval for the project's drainage system will form part of any development consent. As with the ANPS, the surface water drainage arrangements for any project should be such that the volumes and peak flow rates of surface water leaving the site are no greater that the rates prior to the proposed project.

National Planning Policy Framework (NPPF) (December 2023)

9.12 Paragraph 165 sets out that development should not lead to an increase in flood risk elsewhere. Applications for major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate.

Planning Practice Guidance

9.13 The Flood Risk and coastal change provides clarity on multiple flood considerations for new development. Table 2 - Flood and Coastal Risk Change shows that an Exception Test is required for Essential Infrastructure in Flood Zones 3a and 3b. The guidance advises that some elements may contain different elements of vulnerability and the highest vulnerability category should be used, unless the development is considered in its component parts. In flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood. In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test....should be designed and constructed to: Remain operational and safe for users in time of flood; Result in no net loss of floodplain; Not impede water flows and not increase flood elsewhere.

Local

Mole Valley District Council

Adopted Mole Valley Local Plan

- 9.14 The existing Local Plan (2000) includes several precautionary policies relating to flood risk and other water matters, including Policy ENV65: Drainage, ENV67: Groundwater Quality and ENV68: Adequate Water Resources. Together these policies seek to secure the best development on site, in terms of sewer capacity and connections, avoiding adverse impacts on groundwater, ensuring adequate water supply and where there is no detrimental impacts to existing abstractions, river flows, water quality, fisheries, amenity or nature conservation.
- 9.15 Core Strategy (2009) Policy CS20: Flood Risk Management is a generally high-level policy and relies on the guidance contained within the now revoked Planning Policy Statement 25 (Development and Flood Risk) and policy NRM4 (Sustainable Flood Risk Management) in the South East Plan. It reinforces the importance of appropriate sustainable drainage systems (SUDS) as part of any development proposals, flood risk assessments, where they are required and is supportive of applications which relate specifically to reducing the risk of flooding (e.g. defence / alleviation work) subject to impacts on landscape and townscape character.

Future Mole Valley Local Plan

- 9.16 Partnership working with the River Mole Catchment Partnership and other relevant parties regarding flooding and blue infrastructure is supported through strategic policy S5: Retaining and Investing in Natural Capital. Policy EN9: Natural Assets – encourages development to utilise sustainable drainage opportunities to create biodiverse wetland areas where for example balancing ponds or other flood alleviation measures are required.
- 9.17 Policies in the plan are informed by an analysis of local flood risk from all sources in the Council's 2017 Joint Level 1 Strategic Flood Risk Assessment (see below), particularly the principal flood related policy within the emerging plan, INF3: Flood Risk. The purpose of this policy is to ensure that development proposals, in their choice of location, design and layout, reflect the nature of any flood risk, both to the development itself and to adjacent land and property. The incidence of flooding is predicted to increase as a consequence of climate change and new development will be required to adopt a long-term approach to flood mitigation. The policy encourages an approach to mitigation that deals with flooding close to its source, avoids pollution and uses sustainable drainage systems that are appropriate to their location.

9.18 The accompanying Infrastructure Delivery Plan (2021) for the emerging Local Plan recognises the flooding challenges and necessary interventions within key areas including Flood Prevention Schemes across the district, including Charlwood and Hookwood which are closely located to Gatwick Airport.

Reigate and Banstead Borough Council

Local Plan

- 9.19 DMP Policy CCF2: Flood Risk para 2 is pertinent as it sets the parameters for sites in Flood Zones 2 and 3 and other sources of flooding. It requires proposers to take account of climate change and demonstrate that the development will be safe for its lifetime. Proposals must not increase the existing and future risk of flooding elsewhere. Where possible, proposals should seek to secure opportunities to reduce both the cause and impact of flooding for existing and proposed development. Paragraph 4 requires development to reduce surface water run-off rates using Sustainable Drainage systems.
- 9.20 In preparing the DMP the Council was advised by Thames Water that the constrained Horley Water Treatment Works was at capacity. DMP Policy IMF1 relates to timely delivery of infrastructure provision.

Tandridge District Council

Local Plan

- 9.21 DP21: Sustainable Water Management covers the council's requirements in relation to water quality, ecology, hydro morphology and flood risk. The policy requires that "Water will be retained in the natural environment as far as possible. Proposals which seek to restore natural flows in the river systems or re-establish areas of functional floodplain will be supported, particularly where they would provide opportunities for recreation, habitat restoration/enhancement or additional Green Infrastructure provision".
- 9.22 In terms of Flood risk the policy requires that "proposals should seek to secure opportunities to reduce both the cause and impact of flooding; for example through the use of Green Infrastructure for flood storage and, where necessary, the incorporation of Sustainable Drainage Systems (SuDS) suitable to the scale and type of the development, ensuring the discharge of surface run off is restricted to that of the pre-development site. Consideration should be given as to the future maintenance of any proposed SuDS schemes". Appropriate flood resilient and resistant design, and mitigation and adaptation measures are to be included in order to reduce any level of risk identified through a site specific Flood Risk Assessment to acceptable levels. The FRA should demonstrate how flood risk is to be mitigated, development adapted and, where practicable, risk reduced including the consideration of risks from other sources where appropriate. The content and scope of the FRA should be commensurate with the scale of development and be agreed by the District Council in consultation with the Environment Agency."

Surrey County Council

Surrey Lead Local Flood Authority and Flood Risk Management Strategy 2017 -2032

- 9.23 As Lead Local Flood Authority, SCC is responsible for publishing a Flood Risk Management Strategy setting out how the risk of flooding is to be managed across the county. The strategy sets the following vision – "To make Surrey more resilient to flooding on a longterm basis through a co-ordinated approach with residents and partners".
- 9.24 Key principles include a catchment-based approach, partnership working and sustainable flood risk management through planning and development. It includes objectives to establish and implement best practice on integrating flood risk reduction into all feasible SCC capital highway schemes.
- 9.25 Additional Lead Local Flood Authority duties for the County Council include assessing and determining ordinary watercourse consents, under the Land Drainage Act 1991, and acting as a statutory consultee for surface water designs for major development. The responsibility for main rivers lies with the Environment Agency.
- 9.26 SCC has produced Sustainable Drainage System Design Guidance to complement the DEFRA non-statutory Technical Standards. The guidance sets out design criteria required within a scheme's drainage strategy.

Joint Level 1 Strategic Flood Risk Assessment 2017

- 9.27 Reigate and Banstead Borough Council, Mole Valley District Council and Tandridge District Council produced a joint Level 1 Strategic Flood Risk Assessment (SFRA) in 2017 to provide a consistent approach to assessing flood risk across the area. The SFRA has considered all sources of flooding including fluvial, surface water, groundwater, sewers and reservoirs within the study area.
- 9.28 The Surrey elements of the NRP are adversely affected by fluvial flooding from the west of Longbridge Roundabout until the London Brighton Railway Line with further issues to the east of Balcombe Road and to the north-west of the M23 spur and M23 junction (Figure 9.1 and Figure 9.2 below) Flooding from groundwater (Figure 9.3) is a particular high risk in the Horley area including from the west of the north of the South Terminal Roundabout through to the M23. In December 2013 Horley experienced a mixture of fluvial and surface water flooding following a period of unprecedented rainfall. (This was repeated to a lesser extent in December 2022).

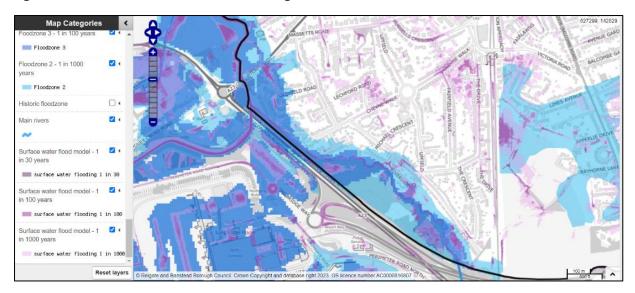


Figure 9.1 Flood Risk Church Meadows to Brighton London Mainline

Figure 9.2 Flood Risk Brighton London Mainline to M23



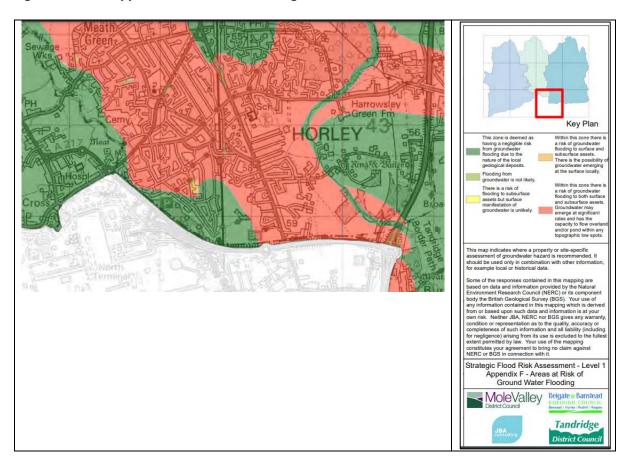


Figure 9.3 SFRA Appendix F C3 Risk of Flooding from Groundwater

- 9.29 Figure 9.3 illustrates the high risk of groundwater flooding to the north of the South Terminal Roundabout eastwards to the M23 junction. Groundwater may emerge at significant rates and has the capacity to flow overland and pond within any topographic low spots.
- 9.30 For Mole Valley, the SFRA identifies a number of challenges for settlements in closest proximity to the airport, most specifically Charlwood and Hookwood which both already experience flooding issues and fall within flood alert area. A flood warning area runs parallel to the application boundary at Povey Cross (Figure 9.4).

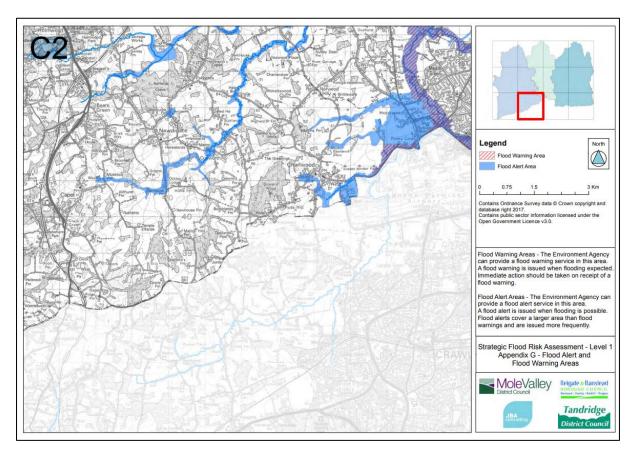


Figure 9.4 SFRA Appendix G C2 Flood Alert and Flood Warnings Areas

9.31 While flood zone 2 covers the majority of the areas of Charlwood, Hookwood and Povey Cross affected by flood, there are also areas of flood zone 3 directly adjacent to the application boundary, with an area of 3a, located in close proximity to where the new Juliet Spur and holding area would be located. Reassurances for any potential impacts both for the spur and land within FZ3b, would be welcomed.

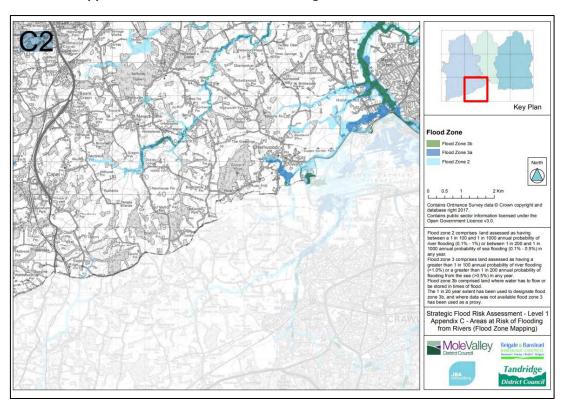


Figure 9.5 SFRA Appendix C C2 Areas at Risk of Flooding from River

Wastewater

9.32 Wastewater is considered in ES Chapter 11 (APP-036) and in Appendix 11.9.7 (APP-150) Figure 2.2.1 Foul Network Schematic. Elements of the airport's foul water are treated at the Horley Sewerage Treatment Work with the rest being treated at the Crawley Sewerage Treatment Works. The local councils have been advised by Thames Water that the Horley STW is already at capacity with multiple spills each year which both harms the environment and impacts on local communities living in the south of Reigate and Banstead. The Applicant has proposed the construction of a new pumping station on the east side of the Brighton-London mainline railway to convey all foul flows from this area to Crawley STW to relieve the gravity outfall pipe discharging to Horley STW.

Construction Phase Impacts

9.33 There has been constructive work with the Applicant on this topic during scheme development, including joint working with the Environment Agency.

Positive

9.34 The JSC's have identified no positive impacts during this phase.

Neutral

- 9.35 The JSC's have identified no neutral impacts during this phase.
- 9.36 We note that the Environment Agency set out within their Relevant Representation (RR-1374) that a detailed review of the Applicant's 'with-scheme' flood risk modelling is still

to be completed and until then comments on flood risk conclusions during construction cannot be made.

Negative

- 9.37 It is noticeable that both the Longbridge Roundabout and South Terminal (Eastern side) works compounds are in areas that are at a high risk of flooding fluvial in the case of the former and ground in the case of the latter.
- 9.38 Design principles with regards to ordinary watercourses have not been discussed or agreed with SCC as LLFA. Whilst we understand that not every eventuality can be considered, some details about culverting (when, where, how), crossing and outfalling into watercourses should be included. SCC considers that drainage protective provisions on behalf of SCC are required in relation to their responsibilities for assessing and determining ordinary watercourse consents, under the Land Drainage Act 1991.

Operation Phase Impacts

9.39 The draft DCO proposes significant modifications to the River Mole and flood compensation areas including enhancements to on airport flood storage capacity. The scheme also includes alterations to three structures over the River Mole and new highways drainage ponds with two located in Surrey to accommodate the additional runoff resulting from the increased impermeable surface resulting from the road widening and alterations. There will also be capacity improvements at the Crawley SWT to accommodate the additional flows resulting from the airport expansion.

Positive

9.40 We note the intention to deliver sustainable drainage with multi-functional benefits, intended to help reduce impacts downstream. We note that flow improvements are proposed from the airport to the Crawley SWT.

Neutral

9.41 We note the Environment Agency set out within their Relevant Representation that a detailed review of the Applicant's 'with-scheme' flood risk modelling is still to be completed and until then comments on flood risk conclusions cannot be made.

Negative

- 9.42 Given the levels of local concern around flooding issues, the JSCs would like the Applicant to justify why a 40 year design life has been used for the airfield as opposed to the 100 years used for highway elements. This contrasts the approach used for the Manston airport DCO where a 100-year design life was used for the runway. The highway elements within the county all have a 100-year design life, with a climate change allowance of 40% (as we would expect and in accordance with SCC design guidance).
- 9.43 The JSCs consider it disappointing that betterment has not been achieved.
- 9.44 It is unclear from the application when the improvements to the Foul Water system will be completed.

Required Mitigation

- 9.45 For any drainage assets to be adopted by SCC, the land acquired should be adequate to accommodate suitable access for future inspection, maintenance and reconstruction of the asset and agreed with SCC to meet our requirements.
- 9.46 SCC has statutory responsibilities as Lead Local Flood Authority (LLFA) and as such have provided the protective provisions it would wish to see included in the DCO. These provisions have been jointly suggested by both West Sussex and Surrey LLFAs. The drafting suggested mirrors the wording used in the M25 J10 DCO, which is the most recent made DCO within Surrey. The Code of Construction Practice Annex 1 Water Management Plan requires revisions to accurately reflect the process for obtaining ordinary watercourse consent.
- 9.47 Due to the current capacity limits at the Horley Sewerage Treatment Works, it is vital that flow improvements from the airport to the Crawley Sewerage Treatment Works are installed prior to the opening of the proposed runway to avoid harm to the water environment, and unpleasant odours and related health risks adversely affecting local communities.

Requirements and Obligations

Summary of impacts – Water Environment						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
W1	Impact on SCC carrying out statutory duties.	С	Negative	Protective Provisions for drainage authorities to be included in DCO This would include design principles that the Applicant will follow so SCC can be assured that works will be in line with what we would require	SCC LLFA responsibilities under land Drainage Act 1991	
W2	Impact on SCC carrying out statutory duties.	C	Negative	Revisions required to Code of Construction Practice Annex 1 – Water Management Plan to correctly reference processes relating to ordinary watercourse consent	SCC LLFA responsibilities under Land Drainage Act 1991	
W3	Impact on SCC carrying out statutory duties	C	Negative	Revisions required to schedule 1 and 2 of dDCO for accuracy purposes. For example foul water drainage is not reviewed by the LLFA	SCC LLFA responsibilities under Land Drainage Act 1991	
W4	Impact on communities and local environment living around the Horley Sewerage Treatment Works	C and O	Negative	Requirement to deliver additional foul water flow capacity early in the project's delivery	ANPS- Paragraph 5.173 RBBC DMP Policy INF1	

10. Traffic and Transport (SCC Lead Authority)

Summary of key issues

- 10.1 This chapter has been collated by SCC encompassing input from the impacted Surrey Local Planning Authorities (MVDC, R&BBC and TDC) as well as representations from town and parish councils.
- 10.2 The Applicant has devised a set of surface access commitments (SAC) that are principally based around mode share targets for passenger and employee travel and the measures and means by which those targets will be achieved. The measures include bus and coach services, active travel, passenger car parking, forecourt charges and staff travel; whilst the means include funding and monitoring.
- 10.3 The various SAC measures listed above and other interventions to the highway network and parking spaces have been tested in the transport model and have demonstrated that the mode share targets will be met in 2032 and beyond. Whilst the JSCs support the principle of the SAC, there are concerns about some of the interventions - whether the Order limits are wide enough and importantly, whether those interventions will deliver the outcomes as reported. However, the JSCs also have concerns about the performance of the models used, baseline assumptions and therefore the certainty of the impacts reported. All of these require addressing before the assessment of effects can be fully agreed.
- 10.4 In terms of interventions, the JSCs have specific concerns about the active travel infrastructure proposed and length and extent of construction. In terms of active travel, the concerns relate to: suitability of the proposals (the JSCs are concerned that the most direct route between Horley and Gatwick Airport via Riverside Garden Park and west of the Brighton mainline are not being improved, while the promoted route via Longbridge Roundabout is only shared use in places); extent (the JSCs consider that additional crossing of the Brighton Mainline could be provided to facilitate access east of the railway, along with improvements to other surrounding residential areas). In terms of construction, the concern relates to length and extent of roadworks required. The JSCs are also concerned about the 1,100 car parking spaces proposed whether they are actually required, and if by including them, they reduce the ability to meet mode share targets in the SAC.
- 10.5 The JSCs recognise that surface access measures need to contain both 'pull' and 'push' measures and seek enhancements to public transport services within the county as these would be beneficial to all users. The JSCs have some concern that the 'push' measures, which include increasing forecourt and parking charges, could be quite blunt. So, whilst the JSCs support the 'pull' and 'push' measures that have been identified to provide passengers with viable travel choices, it only works if measures are balanced and do not involve unforeseen consequences such as on-street parking should the 'push' measures prove unpalatable.
- 10.6 The JSCs have some concerns with the transport model that has been used to test the interventions and measures. Whilst these may seem relatively minor in isolation, it is a matter of being able to trust the model outcomes as reported in the Environmental

Statement (ES) and Transport Assessment (TA). That the baseline is out of date and no sensitivity tests around the core modelled scenarios have been forthcoming regarding the impacts of the SAC not being met, there is a challenge to the credibility of the results provided to date. Given that within the SACs, the Applicant allow themselves two years to address any failure to meet targets that are within the Applicant's control, further highlights the uncertainty that the impacts reported will be as reported in the locations and years as described.

10.7 To this end, the JSCs propose an alternative approach that would still deliver the outcomes that the Applicant desire but are sustainably driven. By adopting an approach similar to that of Luton Airport (referred to as Green Controlled Growth), whereby growth is only permitted after targets have been met, the JSCs could be confident that the outcomes described in the ES and TA would happen rather than just hope that they would. Instead of the Applicant committing to achieve annualised mode shares targets by the third anniversary of the commencement of dual runway operations and on an annual basis thereafter, the Applicant should not start operations until the commitments are met, with subsequent passenger growth being constrained until targets are met again. This way the same outcomes are delivered, without uncertainty, and would ensure that impacts that have been presented are the likely worst case.

Policy context

National

National Policy Statement for National Networks (NPSNN) (December 2014)

10.8 Whilst the application is for an airport, due to the extent of associated road alterations, including the Strategic Road Network, and that the Airports NPS is silent on such matters, the NPS for National Networks is pertinent for this application. NPS for National Networks paragraph 5.149 states that; 'Landscape effects depend on the nature of the existing landscape likely to be affected and nature of the effect likely to occur. Both of these factors need to be considered in judging the impact of a project on landscape. 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'.

Airports NPS 2018

10.9 The Airports NPS, whilst focusing on a third runway at Heathrow, does provide additional context for assessing airports in the South East, in particular page 47 on Surface Access. Paragraph 5.5 states; 'The Government's objective for surface access 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'.

National Planning Policy Framework (NPPF) (December 2023)

10.10 Paragraph 110 requires Local Plans to 'Recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt over time.... Section 9 promotes sustainable transport. Planning policies are required to provide for attractive and well-designed walking and cycling networks, provide for any large-scale transport facilities that need to be located in the area and the infrastructure and wider development to support their operation, expansion and contribution to the wider economy.

Regional

Transport for the South East (TFSE)

10.11 TFSE is the sub-national transport body for the south east of England and they are tasked with determining what transport infrastructure is needed to boost the region's economy. The TFSE 2020 Transport Strategy for the South East sets out the importance of ensuring that future growth at international gateways such as Gatwick Airport can be accommodated by more sustainable modes where possible. It also highlights the importance of prioritising improvements to orbital rail links such as Gatwick to Reading and Kent to Gatwick, which are currently poor. Achieving better connectivity between international gateways, such as the region's airports, and their markets is a strategic priority for TFSE.

Local

Surrey County Council

Surrey Local Transport Plan 4 (LTP4) 2022 -2032

- 10.12 LTP4 aims to significantly reduce carbon emissions from transport within the county to meet commitments to net zero emissions by 2050. It marks a significant change for transport policy within the county and sets out plans for transforming the network, providing a roadmap for transport to 2030 and beyond. Key to delivering on these new policy areas is a new sustainable travel hierarchy that wherever possible will prioritise sustainable travel measures of walking, cycling and public transport.
- 10.13 The plan aligns with three basic principles:
 - Avoid unnecessary travel by reducing the number and length of trips needed.
 - Shift travel choices to more sustainable modes of transport
 - **Improve** the energy efficiency of vehicles and operational efficiency of roads through technology improvements
- 10.14 Key policies of relevance to the Northern Runway Project include:
 - Active travel and personal mobility prioritising walking and cycling
 - Public and shared transport working with operators to improve journeys on public and shared transport
 - Promoting zero Emissions vehicles (ZEVs)

 Planning for Place – planning, designing ad improving local neighbourhoods to reduce the number and length of car trips

Surrey Healthy Streets Design Guide

10.15 This design code provides context-specific guidance on street design for Surrey, building on existing national guidance and is aligned with LTP4 and SCC relevant technical guidance. Requirements and guidance are presented as 'musts' (mandatory requirements), 'shoulds' (requirements that require justification to deviate from), and 'coulds' (recommendations for street design in Surrey. Areas covered include layout principles, carriageway and junction design, pedestrian and pavement design, sustainable drainage systems, cycling and lighting and signage.

Surrey Lane Rental Scheme 2020

- 10.16 The provision for a lane rental scheme is provided through the Street Works (Charges for Occupation of the Highway (England)) Regulations (2012) ("the regulations"). These regulations set out the framework for the application of lane rental on a street; this includes which streets lane rental can be applied to, how charges can be applied and how revenues from charges can be used. Lane rental scheme is a legislative scheme, brought into effect through a legal order.
- 10.17 The SCC scheme aims to reduce the impact of road and street works on traffic by charging utilities and others carrying out works, for the amount of time that their works occupy space on the road. The intention is that it provides greater financial incentive to encourage organisations to improve their planning, work outside of peak times and reduce the duration of their work. The scheme has been applied to the most congested sections of the Surrey local road network and roads covered by the Lane Rental Scheme within the order limits are Longbridge Roundabout, A23 Brighton Road and A217 towards Hookwood Roundabout.

Surrey Permit Scheme

- 10.18 Part 3 of the Traffic Management Act 2004 introduced Permit Schemes as a different way in which activities carried out by Statutory Undertakers and highway maintenance and improvements works in the public highway could be managed to improve a highway authorities' ability to minimise disruption from these types of work. Coordination of activities through the schemes enables differences between those competing for space or time in a street, to be resolved in a positive and constructive way.
- 10.19 Since 11th November 2013, SCC as Highway Authority, has been using the Permit Scheme legislation to better manage road works the local road network. With the exception of emergency works, with a Permit Scheme anyone carrying out works in the road will legally need to apply to SCC for permission, in advance of the works. As an authority, SCC can choose to grant a permit application, apply conditions to a permit application or refuse permission for work until a more suitable time.

Surrey Bus Service Improvement Plan (BSIP)

10.20 SCC's Bus Service Improvement Plan (BSIP) was first published in October 2021. It set out plans to improve bus services within Surrey and was developed in collaboration and

consultation with bus operators and neighbouring authorities. The BSIP was submitted to the Department for Transport (DfT) for their consideration and for potential allocation of a share of the circa £3Bn in funding for improving bus services in England. Targets for improvements were linked to the funding request of around £150m.

- 10.21 After the announcement that Surrey, was not to be allocated any BSIP funding, revisions to the BSIP were required. An updated BSIP was published in May 2023 to outline current plans and ambitions for future initiatives. In Surrey, the work to grow bus patronage and to invest is taking place within the new policy context of LTP4.
- 10.22 Aspirations within the BSIP are:
 - More frequent and reliable services new capital and revenue investment to be focused on Category 1 services (key inter-urban elements of the route network).
 - Improvements to planning/integration with other modes
 - Improvements to fares and ticketing
 - Higher specification buses
 - Improvements to passenger engagement
- 10.23 A priority aspiration of the BSIP is investment in bus priority corridors to improve reliability of bus journeys, including on the A23 Redhill to Gatwick corridor. The BSIP identifies the East Surrey Bus Priority programme Area (focusing on Redhill and Reigate) as a key initiative. Measures include junction improvements, bus lanes, intelligent bus priority at traffic signals and bus friendly traffic management.
- 10.24 Recent bus priority studies have been undertaken to identify priority locations and improvement concepts within East Surrey (with a focus on Redhill, Reigate and Horley). These studies have developed a programme of bus priority improvements which could achieve a tangible improvement for bus services and passengers.
- 10.25 The Redhill-Horley-Gatwick Airport corridor is also one of the corridors outlined as having potential to become a superbus network. These are interurban routes already operating at high frequencies where operators and neighbouring authorities believe that there is scope for further growth.

A new Rail Strategy for Surrey, March 2021

- 10.26 A new Rail Strategy for Surrey was commissioned by SCC in 2020, building on the 2013 strategy and subsequent update in 2016. The strategy sets out a strong evidence base, clear aims and identified priorities. It was produced to enable SCC to articulate to government and the rail industry a case for change, whilst identifying the improvements to services and infrastructure required.
- 10.27 During stakeholder engagement on the strategy, respondents frequently cited connections to airports as a key issue for the county. The strategy identifies the importance of the North Downs Line service improvements as well as increased frequency for the Redhill to Tonbridge Line Gatwick/Kent connection. The strategy sets out the aspiration for an increase in service on the North Downs Line to an all-day 3 train per hour timetable with faster journey times to increase the line's attractiveness. It also identifies the need for increased service frequencies along the Redhill to Tonbridge Line, and the introduction of a new regional direct rail service between Kent, Gatwick Airport and Reading.

Mole Valley District Council

Adopted Mole Valley Local Plan

- 10.28 Local Plan (2000) policy MOV2: The Movement Implications of Development, requires that applications be assessed, not just in terms of their physical size and impact, but also with regard to the sensitivity of the surrounding environment to accommodate the likely traffic generated.
- 10.29 Policy MOV5: Parking Standards provides usual parking provisions and policy MOV13: The Railway Network and Interchange Facilities, is included in recognition of the role the rail network has in providing for transport needs in the District. Although it relates specifically to the main urban areas of Dorking and Leatherhead, Dorking is a stopping point on the North Downs Line and route to Gatwick Airport. This policy recognises the need to improve rail facilities at these locations.
- 10.30 Local Plan (2000) policy RUD28: Off-Airport Car Parking does not support applications for parking outside of Gatwick's boundaries and sets out the enforcement powers that will be enacted in the cases of unauthorised parking schemes.
- 10.31 Policy CS18: Transport and Accessibility like the current Local Plan (2000), is supportive of sustainable modes of transport and off-setting any impacts from development on the highways network.

Future Mole Valley Local Plan

- 10.32 Policy INF1: Transport is the primary transport policy for the emerging plan and once adopted, will work to ensure that traffic and transport impacts are assessed and offset as appropriate. In addition to minimising any adverse impacts on the highway network, it requires the use of sustainable modes of transport. Where this policy applies, applicants must set out how they propose to manage and mitigate the transport impacts of development. The policy also addresses design and travel plans.
- 10.33 Policy INF2: Parking in addition to the usual provisions of a parking policy such as required spaces and sizes etc., the new policy requires balance with the objective of providing realistic alternatives to private car use and promoting sustainable modes of transport.
- 10.34 Policy INF6: Gatwick Airport also includes policy provisions for parking insofar as it opposes any facilities for airport parking within the district, in accordance with Gatwick's approach.

Reigate and Banstead Borough Council

Local Plan

- 10.35 Core Strategy Policy CS17: Travel Options and accessibility seeks to work partners to manage demand and reduce the need to travel, improve the efficiency of the network and facilitate sustainable transport choices.
- 10.36 DMP Policy TAP1: Access, parking and servicing states that all types of development, across the borough, will be required to:

- '
- Provide safe and convenient access for all road users, taking account of cumulative impacts, in a way which would not: Unnecessarily impede the free flow of traffic on the public highway, or compromise pedestrians or any other transport mode, including public transport and cycling. Materially exacerbate traffic congestion on the existing highway network. Increase the risk of accidents or endanger the safety of road users including pedestrians, cyclists, and other vulnerable road users.'
- 10.37 Incorporate a highway design and layout that:
 - Complies with currently adopted highway standards and guidance (including roads which will not be adopted by the Highways Authority, unless evidence can be provided to clearly demonstrate a scheme would be safe and accessible).
 - Provides adequate access in particular with regard to circulation, manoeuvring, turning space, visibility splays and provision for loading/unloading for an appropriate range of vehicles.
 - Achieves a permeable highway layout, connecting with the existing highway network safely and includes safe access for pedestrians and cyclists.
 - Provides sufficient visibility and lighting for the safe and convenient use of the roads, cycle tracks, paths and parking places.
- 10.38 Include car parking and cycle storage for residential and non-residential development in accordance with adopted local standards unless satisfactory evidence is provided to demonstrate that non-compliance would not result in unacceptable harm. Such evidence could include on-street parking surveys, evidence of parking demand, and/ or further information on accessibility. Development should not result in unacceptable levels of on-street parking demand in existing or new streets.
- 10.39 Incorporate pedestrian and cycle routes within and through the site, linking to the wider sustainable transport network where possible, especially in and to the borough's town centres. Provide electric vehicle charging points.
- 10.40 Planning applications will be looked upon favourably unless they would have an unacceptable impact on highway safety or the residual cumulative impacts on the road network would be severe, taking into account proposed mitigation. For all developments likely to generate significant amounts of movement, a Transport Assessment or a Transport Statement will be required.
- 10.41 DMP Policy TAP2 Airport Car Parking states; 'Proposals for additional or replacement airport related parking, including long and short-term parking for passenger vehicles, will not be permitted.' The explanation states; 'within the airport boundary provide the most sustainable location for long stay parking as they are close to terminals and can help reduce the need for additional trips.'

Reigate and Banstead Local Cycling Walking and Infrastructure Plan (LCWIP) 2022

10.42 This is a ten-year investment plan for walking and cycling in the borough, identifying where partners want to prioritise investment and a number of initial scheme options. LCWIPS are the best practice approach nationally for planning walking and cycling improvements and the SCC process follows Department for Transport guidance. All of the proposals in the

LCWIP reports are LTN 1/20 compliant, and this will be expected on any other active travel developments in the area.

- 10.43 The LCWIP has been developed considering the following key aims:
 - Increase the number of people walking and cycling in the borough
 - To make cycling a safe, attractive and convenient mode of transport for people of all ages and confidence levels
 - Widen the existing cycle network and establish a wide active travel network for the borough
 - Enhance accessibility to key destinations for all users
 - Increase intermobility with improved connectivity in the areas around transport hubs such as railway stations
 - Develop connections with major employment hubs, such as Gatwick Airport

Tandridge District Council

Local Plan

- 10.44 Policy DP5 of TLPP2 is entitled Highway Safety and Design and it details the requirements highway design, sustainable travel and on and off-site mitigation including via Section 106, Section 278 and other legal agreements. Policy DP5 of the TLPP2 states:
- 10.45 A. Development will be permitted subject to meeting the requirements of all other appropriate Development Plan policies and where the proposal:
 - Complies with the relevant Highway Authority's and any other highways design guidance;
 - Does not unnecessarily impede the free flow of traffic on the existing network or create hazards to that traffic and other road users;
 - Retains or enhances existing footpaths and cycleway links;
 - Provides safe and suitable access to the site which is achievable by all and promotes access by public transport, foot and bicycle to nearby residential, commercial, retail, educational, leisure and recreational areas where appropriate; and
 - Fully funds where appropriate, or contributes towards the costs of any measures required to cost effectively mitigate the significant impacts arising from the development.
- 10.46 B. In accordance with the Council's Local Validation Requirements and national guidance, all development proposals that generate significant amounts of movement should be supported by a Travel Plan and either a Transport Statement or Transport Assessment (proportionate to the scale of the proposed scheme and extent of the transport implications), both of which should be submitted alongside the planning application."
- 10.47 When assessing the impacts of the NRP, the JSCs have been mindful of the scheme's influence upon the following policies, consistent with (<u>APP-037</u>) (Table 12.2.2 Local Planning Policy):

- 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
- Journeys made to airports by sustainable modes of transport maximised
- Planning policies are required to provide for attractive and well-designed walking and cycling networks
- Active travel and personal mobility prioritising walking and cycling
- Public and shared transport working with operators to improve journeys on public and shared transport
- Need to control off airport parking
- Promoting Zero Emissions Vehicles (ZEVs)
- Planning for Place planning, designing and improving local neighbourhoods to reduce the number and length of car trips
- Increase intermobility with improved connectivity in the areas around transport hubs such as railway stations
- Develop connections with major employment hubs, such as Gatwick Airport
- Bus priority corridors to improve reliability of bus journeys, including on the A23 Redhill to Gatwick corridor
- The Redhill-Horley-Gatwick Airport corridor is also one of the corridors outlined as having potential to become a superbus network
- Ensuring that improvements to the North Downs Rail Line are optimised for surface access to Gatwick Airport. An assessment and long-term strategy for the North Downs Line was produced in 2015.

Current Context

<u>Traffic</u>

- 10.48 Gatwick Airport is primarily accessed from the national Strategic Road Network (SRN) via the M23 motorway, which runs from M25 junction 7 in Reigate to the M23 Spur Road leading to the airport. Secondary routes to the airport via the A22, A23, A24, A217 and associated rural road network are also frequently used to avoid the more congested primary routes or to provide resilience during incidents.
- 10.49 The A23, which is parallel to the M23, links to Croydon north of the M25, running through Horley, Salfords, Redhill and Merstham in the borough of Reigate and Banstead. The A23 and A217 presently suffer from traffic congestion at peak periods, especially at locations close to Gatwick Airport.
- 10.50 Due to the significance of the M25 in enabling access to and from the Airport, the A22 and A24 are often utilised when issues on the M25 occur in either direction of junction 7. In these instances, drivers also divert onto the wider 'A-road' network and subsequently onto more rural roads in the south of both Mole Valley and Tandridge Districts, linking them to the airport networks. These rural roads are unsuitable for such traffic volumes.
- 10.51 As noted above, both the A23 and A217 suffer traffic congestion. The A23/A217 Longbridge junction is a busy roundabout, and approaching the junction on both arms of the A23 and on Pover Cross Road can be slow, especially during the peak periods.

- 10.52 The A23 to the west of Horley town centre and B2036 Balcombe Road on the east side, are also busy routes: the A23 junction in particular needs to cater for pedestrian and cyclist movements as well as buses. For this reason, as part of Surrey County Council's Greener Future agenda, the installation of intelligent bus priority is being considered at the junctions of A23/Massetts Road and A23/Vicarage Lane/Victoria Road (Air Balloon).
- 10.53 However, the degree of congestion is highest on the north side of Horley on the A23 corridor between the A23/B2036/Horley Row (The Chequers) roundabout and southern approach to Redhill, inclusive. During peak periods, congestion results in extremely variable journey times: the route can be travelled in less than 10 minutes, but during peak periods the journey time can be anything from just over 15 minutes to half an hour. Even in the middle of the average weekday, the journey time can be up to 20 minutes. Such unreliability affects public transport significantly.
- 10.54 This is of concern to local parish and town councils, who in recent years have written to SCC regarding the impact of further development on existing residents and businesses. Whilst not specifically targeted at Gatwick, clearly an expansion of operations at Gatwick is likely to have an impact on the performance of the A23: this includes having an impact on buses using this route including those serving the airport.
- 10.55 88.5% of MVDC's households own one or more car or van and the private car is the principal means of travel for residents both for day-to-day usage and travelling for work and. This increases to 91.3% in the Charlwood, Newdigate and Beare Green Middle Super Output Area (MSOA) which covers the areas closest to Gatwick (Census, 2021). This is an unsustainable position in the longer term and better provision and use of public and low emission modes must be increased. Current and future planning policies for Mole Valley encourage this, but wider delivery does rely on the commitment and support of public transport providers.
 - 10.56 Strategic needs for public transport and the primary route network must be balanced against preserving the quality of the environment whilst considering the needs of both urban and rural areas and maintaining and improving access to these areas. Settlements in closest proximity to Gatwick are predominantly rural and the road network in these locations are often used as alternative routes to the main strategic network stemming from the airport. This is particularly prevalent when there are roadworks or congestion in and around the A23/M23 and other roads. It is considered that the construction phase of the NRP would present a particular likelihood of this.

Public Transport

- 10.57 There is direct access to Gatwick from Surrey via the Brighton Main Line and interchange at Clapham Junction. Slower stopping services serve Horley, Salfords, Earlswood, Redhill and Merstham in Surrey. Another key rail link for travel to and from Surrey is the Great Western Railway North Downs Line which is the main orbital railway in Surrey and a twice hourly service between Gatwick Airport and Reading, via Redhill, Reigate, Dorking and Guildford.
- 10.58 For Mole Valley, the North Downs line is the only available route for commuters and passengers to access the airport and who must join the rail network at Dorking and join onto the Brighton Mainline via Redhill.

- 10.59 Within Surrey there are a number of local bus services serving the airport which are operated by Metrobus, two of these services are classified as which are Metrobus 'Fastway' bus routes. Fastway is a bus rapid transit network in Surrey and West Sussex, which has been designed to avoid congestion hotspots by travelling along sections of guided busway and dedicated bus lanes. This is combined with real time information and low emission buses. From 2024 the Fastway services will be operated using hydrogen fuelled zero emission buses.
 - Route 100: Maidenbower Three Bridges Crawley Gatwick Horley Redhill. Operates 24 hours. Every 17 minutes at peak times to once an hour early/late. Seven day a week service.
 - Route 20: Broadfield Three Bridges Gatwick Crawley Horley. Operates twice hourly, including early and late. Seven day a week service.
- 10.60 Other key Metrobus Gatwick routes serving Surrey include:
 - Route 22: Holmbury St Mary Dorking Crawley. Seven services per day. Weekday only.
 - 400: East Grinstead Gatwick Airport Redhill Caterham. One bus per hour 6am 7pm. Seven day a week service, timings vary.
 - 460: Epsom Redhill Crawley. One/two buses per hour 6am to 11pm. Seven day a week service, timings vary.
 - 422/424: Redhill Reigate Horley Gatwick Crawley. Approximately one bus per hour 6am – 7pm and one bus per hour 5am – 7pm. Reduced frequency on weekends.
- 10.61 Metrobus is a key operator within Surrey and also provide a large number of further services in the east of the county.
- 10.62 Within the Gatwick area Metrobus offer a wide variety of ticketing options to encourage use and provide value to money for passengers as well as investing heavily in tap on tap off technology so passengers can use contactless payment and benefiting form a maximum daily charge. Gatwick staff can also apply for a value added Gatwick Travelcard which is accepted at all times on Metrobus routes which serve Crawley or Gatwick Airport.
- 10.63 As part of SCC's Greener Future agenda, the council are investing to improve bus services and install supporting infrastructure with the aim of encouraging a mode shift away from cars and grow bus patronage. The Net Zero Bus Priority Project includes helping buses to arrive on time through more bus priority measures such as bus friendly traffic management measures, bus lanes and bus stop clearways, as well as expanding real time bus passenger displays. The scheme complements the investment the council are making in zero emission (e.g. electric and hydrogen) buses. The first corridor being considered is the A23 between Redhill and Horley, with the aim of improving bus service reliability and reducing bus journey times on the main bus routes between Redhill, Reigate and Horley and surrounding areas.
- 10.64 The Gatwick Local Commuter Scheme (LCS) can provide access to London Gatwick station for people living close to the airport who regularly use the station to commute and is open to residents living within the specified postcode sectors of: RH6 0, RH6 9 and RH11 0 who have limited or no other public transport options nearby. These postcodes cover areas in Charlwood, Horley, Hookwood, Ifield, Lowfield Heath, Shipley Bridge and Smallfield.

10.65 In the absence of a comprehensive public transport offer it stands to reason that there will continue to be a need for the LCS but which is contrary to the achievement of modal share. The focus needs to be on public transport improvements, not on mechanisms that encourage private car use.

Sustainable modes

10.66 Overall walking and cycling to Gatwick Airport by staff is very limited, with the Applicant reporting that in their 2016 Gatwick Employer and Travel to Work Survey just 3% travelled to work in this way. This is despite the large potential pool of staff in Surrey.

Parking and enforcement

- 10.67 The Surrey Local Planning Authorities have Local Plan policies relating to airport car parking, setting out that additional or replacement airport related parking, including long and short term parking for passenger vehicles, will not be permitted. The rationale for the policy position is that sites within the airport boundary provide the most sustainable location for car parking as they are close to terminals and help reduce the need for additional trips. Policies to control the extent of airport parking are also designed to support the Applicant in their modal shift targets.
- 10.68 Issues relating to off airport parking are frequently raised by local communities within Surrey. The Gatwick Parking Summary 2023 recognises this as a particular issue for Mole Valley. The survey provided detail on where unauthorised, long-stay, off-airport parking is being experienced. Locations include 168 spaces at Stanhill Court Hotel, Charlwood and 109 spaces on Gatwick Business Park, Hookwood, giving a total of 277 known and unauthorised spaces for Mole Valley alone.
- 10.69 In relation to car parking, it should be noted that within Tandridge that there are also problems and enforcement issues relating to off-site car parking by employees, contractors, passengers and visitors to Gatwick Airport which Gatwick Airport Limited are aware of. This creates problems for local residents and business and creates additional demand, work and costs on the Council and their Enforcement Team. Given this current situation it is likely that these problems will only worsen given the proposals of the extensive construction workforce and the resultant increase in the Gatwick airport operations and increase in passengers, employees and contractors.
- 10.70 Parking survey figures do not account for passengers parking on streets in close proximity to stations and bus routes into Gatwick across Surrey, which while not always unlawful, does create local issues and frustration for the local community and road users. Unauthorised parking is contrary to local planning policies and that of Gatwick's Surface Access Strategy which seeks to ensure parking is contained to the remit of the airport envelope and does not provide sufficient assurance that off-site and illegal parking activities will be lessened and enforcement and management of this needs to be resourced.

Current surface access strategy and Sustainable Transport Fund

10.71 Some of the JSCs are represented on the Gatwick Airport Transport Forum Steering Group. The forum meets on a quarterly basis and work with local authorities to target use of the Sustainable Transport Fund (STF). As part of its obligations under the existing S106 legal agreement, the Applicant provides a Sustainable Transport Fund (STF) to bring forward initiatives in accordance with the Airport Surface Access Strategy and agreed with the Transport Forum Steering Group. The STF is comprised of a levy of on-airport staff and public car parking spaces, a small percentage of forecourt charges and residual income (after costs) from 'red route' transgressions. For the 2022 calendar year income was £1,620,927 and the figure rose to £1,707,968 in 2023. Over 73% of the fund was generated from the public car park space levy.

- 10.72 The amount of funding for bus services fluctuates annually based on several factors, including the amount of funding available. In 2022 Gatwick contributed over £300,000 to Metrobus to support bus services to and from the airport, serving both Surrey and West Sussex. This was not targeted at particular services while Metrobus and the airport were seeking to recover passenger numbers following the pandemic. This total was lower than pre-pandemic contributions.
- 10.73 The forum works together to target funding at specific services to meet local needs and improve access to the airport within the funding envelope available. The Gatwick Staff Travel Survey provides vital information to enable discussion and decisions about where the need is and how to encourage staff to travel by sustainable modes. Gatwick carries out employee surveys and travel to work surveys for airport employees every five years. Increased frequency of surveys would support the forum in targeting funding effectively. The JSCs query why the 2023 survey has not yet been made available as it would be a useful additional submission to the examination.
- 10.74 The JSCs notes that in APP-258 paragraph 29: "CAA surveys up to the first quarter of 2020 showed a continuing improvement in public transport mode share year-on-year, up to 47.4% in 2019 and 47.8% in the year to March 2020. In 2022 the annualised public transport mode share for Gatwick Airport was 43.7%, indicating that the Airport is still in recovery, with public transport services not yet returning to pre-pandemic levels and the effect of rail strikes and related disruption".
- 10.75 SCC supports continued working with GAL as part of the Gatwick Airport Transport Forum Steering Group but note that the current mode share targets as described in the <u>ASAS</u> 2022-2030[1]⁵ are some way from being met:
 - Target 1: Achieve 52% of passenger journeys to the airport by public transport by 2030 under the scrutiny of the Transport Forum Steering Group, as part of meeting our Decade of Change target of 60% by sustainable modes and ultra-low or zero emission vehicles. This compares to a public transport mode share of 47% in 2019.
 - Target 2: Target 48% of staff journeys to work by public transport, shared travel and active travel by 2030, up from 39% in 2019 (as part of meeting the same Decade of Change target).
 - Target 3: Challenge the rail industry to help us achieve a 50% rail mode share for airport passengers by 2030, compared with 41% in 2019, which would help us exceed our public transport target.



- Target 4: Continue to reduce air passenger drop off and pick up car journeys by 2030 to just 15% of all journeys, as part of our target to increase public transport mode share for passengers.
- Target 5: Set a new Active Travel mode share target for staff living within 8km/5 miles of the airport of not less than 10%, to be confirmed by the end of 2023 based on results of the Staff Travel Survey. In 2019 the total mode share across all staff was 3-4%.

Context – the Applicant's Transport Strategy

Overview

- 10.76 The Applicant has submitted a Development Consent Order (DCO) application for the Northern Runway Project (NRP) at Gatwick Airport that anticipates that by 2047 airport capacity could increase up to 80.2 million passengers per annum (mppa), compared to a forecast throughput in the absence of the NRP of 67.2 mppa within the same timescale (APP-258 para 12.9.147).
- 10.77 In response to the increased passenger demand, the NRP includes the following key components in relation to surface access (<u>APP-030</u> para 5.2.3):
 - provision of reconfigured car parking and new car parks
 - surface access improvements, including:
 - $\circ \quad$ changes to the North and South Terminal Roundabouts
 - modification of the Longbridge Roundabout with improvements to walking and cycling infrastructure incorporated into the highway proposals to improve accessibility and overcome severance.
- 10.78 In addition, the Applicant has highlighted a range of equally necessary intervention commitments (APP-090). These include enhanced regional express bus or coach services, enhanced local bus services, active travel, air passenger car parking charges, forecourt charging, staff travel, a sustainable transport fund and a transport mitigation fund (APP-090) that form its Surface Access Commitments (SACs).
- 10.79 The aim of the SACs are, in terms of annualised mode shares, by the summer period after the third anniversary of the opening of the northern runway (APP-090 para 4.2.1), to achieve:
 - A minimum of 55% of air passenger journeys to and from the Airport to be made by public transport (rail, local bus, regional/express bus or coach or another commercially operated shared transport service for public use);
 - A minimum of 55% of staff journeys to and from the Airport to be made by public transport, shared travel (a journey made by private car containing more than one person) and active modes (walking and cycling);
 - 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
 - A least 15% of airport staff journeys to work originating within 8km of the Airport to be made by active modes.

- 10.80 The Applicant also commits to an Annual Monitoring Report (AMR) that will be produced no later than six months before the commencement of dual runway operations. If the AMR shows that the mode share commitments have not been met or, in the Applicant's reasonable opinion, suggests they may not be met (having regard to any circumstances beyond its control which may be responsible), the Applicant will prepare an action plan. This will identify such additional interventions which are considered reasonably necessary to correct such actual or potential non-achievement of the mode share commitments (APP-090 para 6.2.5). The Applicant proposes to produce an additional action plan if two successive AMRs fail to show that mode share commitments have been met.
- 10.81 The modelling of those interventions enables the Applicant to demonstrate that its SACs have been met and as such, there is no additional mitigation or sensitivity testing that has been presented. The JSCs are concerned that this approach makes it difficult to fully ascertain the range of possible local impacts. This will be explored in the sections below.

Airport Capacity and Demand

- 10.82 The JSCs are concerned about the level of growth assumed by the Applicant in its case for the scheme. This is detailed in the analysis carried out by York Aviation, as set out in Appendix B. The report considers that the capacity claimed is too high and the forecasts are not likely to be delivered in the timescale asserted (even if the capacity can be achieved). As a result, by attempting to accommodate such growth, the NRP includes additional car parking spaces and enhancements to the highways network that a) might not otherwise be required and b) if provided ahead of need, will be detrimental to achieving mode share commitments. The JSCs advocate focusing on achieving the mode share commitments at the earliest opportunity and support those elements of the NRP proceeding ahead of other measures.
 - 10.83 It should also be noted that SCC also has some specific transport modelling concerns (as set out below), including the Accounting for Covid 19 in Transport Modelling report (AS-121), thus creating further concern about whether the forecasts and associated mitigation proposed is appropriate.

The NRP Scheme

- 10.84 In order to accommodate the proposed increase in passenger numbers, the Applicant proposes a number of surface access improvements (APP-258 Para 2.2.1 and diagram 2.2.1). Our observations of those proposals are outlined below.
- 10.85 In terms of the infrastructure proposed, it should be noted that the comments below are based on the preliminary design submitted. Further liaison and agreement will be required with SCC regarding detailed design and Departures from Standard under Requirement 5. Similarly, outline construction information has been submitted, but the Applicant will need to engage with the JSCs to develop the full Construction Management Plan, Construction Traffic Management Plan and Construction Workforce Travel Plan.
- 10.86 Furthermore, the JSCs are concerned that the proposed surface access improvements do not go far enough. In particular, bus priority is not considered, while impacts on the following junctions have not been explored as part of the VISSIM model (please also refer to the VISSIM section):

- A23/Massetts Road
- A23/Victoria Road
- A217/Tesco Roundabout
- A217/Hookwood Roundabout

10.87 It is also considered that the active travel proposals do not include:

- Upgrade of the most direct route between Horley and Gatwick Airport (via Riverside Garden Park to North Termain and west of Brighton Mainline to south terminal)
- Improved crossing of the Brighton Mainline south of the A23 to facilitate access east of the Brighton Mainline
- Further improvements to the Rights of Way network around the airport to increase opportunities for sustainable travel from surrounding residential areas such as Charlwood
- 10.88 As a result, the JSCs are concerned that GAL will not be able to meet its sustainable mode share targets in the SAC and will be limited to improvements within the red line boundary to achieve them. As such, we query whether the DCO boundary should be extended accordingly to include such improvements.

New highway layout in the vicinity of South Terminal Roundabout, providing full grade separation

- 10.89 <u>APP-020</u> (sheet 2) shows the Airport Way bridge over the Brighton Mainline is being widened so the JSCs query why this cannot be widened further to incorporate an active travel overbridge. The JSCs disagree that the existing crossing provision over the railway provides good connectivity for cyclists wishing to access the airport. There are no crossings for cyclists between Victoria Road and Radford Road. hence the JSCs requested enhanced East-West connectivity across the main rail line south of the A23 Airport Way to provide better active travel links from the South Terminal complex to east of railway line.
- 10. 90 The most direct route between Horley and South Terminal is from The Crescent along the west side of the Brighton Mainline. FP362a and FP355 are currently narrow and enclosed. As GAL are landscaping car park B anyway, the JSCs query why an improved route for pedestrians and cyclists cannot be provided through here from the southern end of The Crescent.
- 10.91 Considering the ambitious modes share targets set, the JSCs consider that improvements to the most direct routes between Gatwick and Horley/surrounding residential areas are required.
- 10.92 (APP-085) (Outline Construction Traffic Management Plan) para 5.6.2. shows that a secondary entry point to the South Terminal Roundabout Contractor Compound is required from Balcombe Road for Construction workforce privately owned vehicles. This will require use of the Local Road Network, which is contradictory to the paragraph, which states that the route to the compound will be via Junction 9 M23, followed by a turn onto the South Terminal roundabout. Therefore, the JSCs are concerned about the impact on the Local Road Network and questions why this is required/why it cannot be direct from the South Terminal Roundabout.
- 10.93 The JSCs also concerned about the associated Rights of Way diversion proposals (<u>APP-044</u>).

Enhancement of the eastbound M23 Gatwick Spur as part of the South Terminal Roundabout improvements

10.94 The JSC's concern in relation to this is the Balcombe Road overbridge in terms of construction impact. Replacement of the Balcombe Road overbridge will most likely close the road (APP-258 para 15.5.8 / APP-081 Appendix H). The JSCs are concerned about the associated impact on the Local Road Network. Therefore, the JSCs request further details regarding the closures in terms of dates and duration.

New highway layout in the vicinity of the North Terminal, including partial gradeseparation, removal of the Airport Way eastbound connection from North Terminal Roundabout and adding a new signal-controlled junction on the A23 London Road

- 10.95 Regarding the new signal-controlled junction on the A23 London Road (<u>APP-020</u> sheet 1) the JSCs are concerned that the new signal-controlled junction on the A23 London Road will result in queuing back that will affect the Longbridge Roundabout and provision of the left turn from the North Terminal onto the A23 London Road makes it easier for staff to drive to/from work, thus working against the Applicant's ambitious sustainable mode share targets, especially as the Active Travel infrastructure proposed is considered deficient. Queuing information has been requested from GAL accordingly.
- 10.96 The JSCs are also concerned that the most direct Active Travel connection between southern Horley and the North Termina is not being improved for pedestrians and cyclists in entirety (via the signal-controlled junction on the A23 London Road and Riverside Graden Park), yet the less direct route via Longbridge Roundabout is being proposed as the preferred active travel route.

Improvements to Longbridge Roundabout (TR0200005 APP-020-Sheet 1)

- 10.97 (APP-258) Paragraph 12.5.11 indicates with project journey times will increase between the Longbridge Roundabout and the A23 (south of M25 near Merstham) by up to two minutes northbound, and on the A217 from M23 Spur via A217 to M25 J8 by up to five minutes. The JSCs are concerned about the impact on the Local Road Network and that no mitigation is proposed, along with the associated impact on bus journey times with no specific bus priority measures identified for the route. This adds to the JSCs concern that this will make the Applicant's mode share targets/ambitions more difficult to achieve without other interventions, such as discouraging parking and encouraging/investing more in Public Transport services.
- 10.98 Longbridge Roundabout is a busy HGV route with large/abnormal loads, and alternative provision for diverted large vehicles if they can't use the M23. Therefore, details of the lane widths and lane numbers on entry and exit to/around the Longbridge Roundabout will need to be provided and agreed.
- 10.99 The 2-to-1 lane merge on the A23 southbound roundabout exit may need lengthening. The Stage 3 RSA on the existing segregated left turn lane (SLTL) identified that the markings for the merge were causing regular side-swipe conflicts. Consequently, the SLTL was lengthened. The proposed merge in this scheme appears narrower and shorter than the

existing (which has been lengthened since the Stage 3 RSA), thus generating a similar concern that this may cause conflict as it is currently designed.

- 10.100 The length of the splitter island on the A217 arm at the Longbridge Roundabout appears excessively long and may affect approach lane widths. While it is acknowledged that the length of island provided to prohibit right turns in / out of farm access, detailed design should consider approach lane widths in line with concern raised.
- 10.101 SCC requests that further details of Retaining Wall 20 are provided. SCC requests confirmation if the existing Povey Cross Road controlled crossing at the Longbridge Roundabout is to be upgraded as part of the works.
- 10.102 With regard to construction, the Outline Construction Traffic Management Plan (APP-085) it is noted:
 - Section 5.7 outlines that a small construction compound will be provided to the north east of the roundabout to support construction at Longbridge Roundabout, which will be served by a new single main entry point located on the roundabout. The location / priority control of this entry point in line with other methods of control on the roundabout is unclear in the OCTMP/Buildability Report submitted as part of the DCO. Subsequent information provided in the Statement of Common Ground has provided some clarification via text, but SCC still has concerns without further information thus SCC requests that a plan and further information is also provided. In particular, the existing access track is considered inappropriate in terms of width, geometry, its lack of visibility at its crossing of the shared cycle/footway and proximity with the pedestrian signals at the approach to the roundabout. We would expect to see this access being left in and left out only.
 - Section 6.4 states "the usage of local roads will be restricted for construction vehicle access to minimise disruption to local communities and traffic. These restrictions include all residential roads around Gatwick Airport". However, it is also stated that for construction on local roads, the transport of heavy machinery, materials, and staff may require use of local roads, with Balcombe Road Bridge provided as an example. Therefore, the JSCs are concerned about this and would like further details.
 - Paragraph 6.7.3 notes that several traffic disruptions are required that include partial and full road closures. The JSCs are concerned about the impact on the Local Road Network and requires further information on locations, dates and durations.
 - From Paragraph 6.7.4, SCC note that Lane rental agreements with Local authorities will be put in place prior to construction. However, discussion is yet to take place with SCC, and SCC notes that the Applicant appear reluctant to consider this within the SOCG (in 20.39 and 4.21, the Applicant do not respond to the point about SCC wishing to see them incorporated in the DCO).

New and enhanced active travel routes providing connections from surrounding areas

10.103 The JSC's concern is that if suitable active travel infrastructure is not provided to encourage modal shift, the Applicant's SAC mode share targets may not be achieved.

- 10.104 (APP-258) Diagram 14.2.3 demonstrates the immense potential for a real modal shift improvement for Gatwick Employees, especially from Crawley (the south), and the improvements that SCC and RBBC are requesting in terms of linking North/South Terminals into Horley in the North will serve that area well.
- 10.105 (APP-258) Diagram 14.2.3 does not demonstrate a significant enough modal shift an increase in the northern area (Horley), of only 133 additional trips by 2047 (NRP) is a poor target, and an increase of only 41 from the areas south of the airport is even more disappointing.
- 10.106 (APP-258) Diagram 14.2.3 SCC would like to understand the associated mode share percentage and associated increases and versus Business As Usual (BAU) as it is not possible to determine actual improvement with just numbers.
- 10.107 The JSCs consider that the Rights of Way improvements proposed are insufficient, particularly given the scheme's ambitious sustainable mode share targets. The scheme has not fully explored how further improvements to the Rights of Way network around the airport could increase opportunities for sustainable travel from surrounding residential areas such as Charlwood, Hookwood and Povey Cross. The JSCs consider it a missed opportunity in terms of providing additional off road cycling options as well as improvements to existing routes. This is covered in more detail in <u>APP-044</u>.
- 10.108 There is a new footway proposed on the north side of the A23 London Road over the Gatwick Stream but it is not clear what it is for <u>(APP-020</u> sheet 1).
- 10.109 In order to assist the Applicant to achieve the future sustainable mode share targets, the active travel infrastructure proposed should also be ambitious. The JSCs consider that it is not as it does not improve the most direct route between Gatwick and Horley in entirety (via the new signalised crossing of the A23 London Road and Riverside Garden Park to North Terminal; and west of the Brighton Mainline to the South Terminal), while there are less than adequate shared use sections on the longer, less direct route that is being promoted via Longbridge Roundabout.
- 10.110 The connection between southern Horley and the North Terminal (APP-018 sheet 1) proposed in the DCO is not considered satisfactory. The most direct route via the new staggered crossing at the new signalised junction on the A23 London Road is identified as "future proofed for potential future upgrade to shared use-provision", while no improvements are proposed through Riverside Garden Park. This means that cyclists are required to use the indirect route via Longbridge Roundabout, while pedestrians either have to use existing unimproved routes through Riverside Garden Park or use the footway along the north side of the A23 London Road. The latter has a 40 mph speed limit under the proposals and is not considered a suitable environment. SCC has previously expressed concern with this and consider that the most direct route via the new staggered crossing of A23 London Road and Riverside Garden Park should be designed for cyclists as well as pedestrians from the outset rather than just being "future proofed" in order to achieve the ambitious mode share targets set.
- 10.111 Similarly, the most direct route between Horley and South Terminal is from The Crescent along the west side of the Brighton Mainline. FP362a and FP355 are currently narrow and enclosed. As the Applicant is landscaping car park B anyway, SCC queries why an improved

route for pedestrians and cyclists cannot be provided through here from the southern end of The Crescent

- 10.112 The JSCs are concerned about the proposed active travel route via Longbridge Roundabout because:
 - It is not the most direct route (there are shorter routes via the new signalised crossing of the A23 London Road and Riverside Garden Park to North Terminal, and west of the Brighton Mainline)
 - It is an inconsistent mixture of fully segregated and shared use with shared use pinch points where the Brighton Road and London Road bridges over the River Mole are being widened anyway. Thus, SCC considers that they should be widened enough to allow for segregation.
 - At the South west corner of Car Park Y there is a 90 degree bend in the active travel route. This will significantly reduce intervisibility between active travel users and should be improved.
 - Where the active travel route from the North Terminal meets the A23 London Road, concerns regarding a cyclist potentially losing control and / or falling from their bike and falling into the carriageway remain. This is further complicated by the localised narrowing of the active travel route over the River Mole Bridge where a short section of Shared-use path (SUP) is to be provided. Cyclists may not anticipate pedestrians in a SUP environment if blinded by the bend / vegetation over time (TA para 2.2.22).
- 10.113 The JSCs are disappointed that none of rail crossing options have been taken forward to facilitate access to east of the Brighton Mainline. We disagree that the existing crossing provision over the railway provides good connectivity for cyclists wishing to access the airport. There are no crossings between Victoria Road and Radford Road.
- 10.114 The best option for crossing the railway line from west-east would be somewhere south of the M23 spur. This is where it could serve both sides of the campus. As part of this, SCC has previously requested upgrading the connecting footpath routes running north/south on both the east and west side of the railway line to shared cycle /pedestrian facilities, yet no improvements are proposed. In that way, there would be improved links from The Crescent, through the reworked Car Park B area down into the main South Terminal, and to the car park/hotel area on the east side of the line. Furthermore, the NCR21 upgrades south of Airport Way need to be tied into the requirements for improved routes northwards on both sides of the main railway line, with a much-improved provision through the under-croft environment of the airport buildings. Alternatively, as the A23 Airport Way over the railway is to be widened in any case (southern carriageway is widened from 2-3 lanes), this could incorporate an active travel crossing.
- 10.115 Considering the ambitious mode share targets set, the JSCs consider that improvements to the most direct routes between Gatwick and Horley/surrounding residential areas are required.

Car Parks

10.116 The NRP would result in the loss of 8,905 car parking spaces, which would be re-provided, together with a net increase of up to 1,100 car parking spaces when required, bringing the total to 54,370 spaces (APP-030 Table 5.2.4). The JSCs welcome the fact that the additional

13mppa assumed as a result of the NRP will not be accompanied by a proportionate number of parking spaces and that the number of originally proposed spaces has fallen. However, the JSCs remain concerned that such expansion of car parking spaces continues to facilitate driving to the airport, especially if delivered before demand can be expected to rise to generate that need.

- 10.117 Should these 1,100 additional spaces be required, the JSCs, as will be discussed below, would like to see a phased approach to such development. Indeed, such approach was proposed in the Local Authority Transport Working Group (TWG) on 5/11/21: "GAL would only increase car parking as it is needed and would not provide additional capacity if not required." The JSCs wish to understand what mechanisms are in place or need to be in place to ensure that the additional 1,100 spaces are only built as required. However, the JSCs wonder why a further 1,100 parking spaces are required as part of the NRP. This is because there is no forecast change in park and fly demand in 2047 as shown in <u>APP-260</u> future baseline (Table 70) and with NRP Scheme (Table 133) whereby approximately 36,000 park and fly passengers per day are forecast for both scenarios during a time of year that tends to have a higher car mode share (<u>APP-260</u> para 12.2.3).
- 10.118 The JSCs support the Applicant's measures to promote the use of more sustainable travel to work, including car sharing and active travel and to continue to reduce the total number of spaces provided per 1,000 employees across the airport (<u>APP-030</u> para 5.2.89).
- 10.119 The JSCs are concerned that the baseline includes the 2,500 additional spaces via robotics at the South Terminal long stay parking area (APP-258 Table 2.4.1). This is even though it is yet to be agreed whether this would count as permitted development as it has not been trialled yet.
- 10.120 Regarding off-airport parking, which is a concern for the JSCs due to its impacts on the local road network and local communities, (<u>APP-037</u>) para 12.6.74 states that "Off-airport parking capacity [will be] held constant and occupancy capped at 87.5% of capacity, after which any off-airport parking demand is assumed to divert to on-airport car parks". The JSCs would like to understand how this constraint (87.5% of capacity) will be applied and how further off-airport parking will be monitored to ensure that it is diverted to on-airport cap parks.
- 10.121 We wish to remind GAL of other comments made in the Local Authority TWG on 5/11/21 that GAL was planning to support local authorities to reduce unauthorised off-airport parking (such as that provided by private operators and including meet and greet valet parking, which GAL has no control over). We welcome GAL working with its host authorities to accord with their policies on parking (i.e. Reigate and Banstead policy TAP2, Mole Valley policy RUD28, etc.) to minimise the impact of the increased passenger numbers and staff resulting in greater levels of unauthorised off-airport parking. To do so would reduce stress on our network and improve the quality of life of our residents affected by travel to/from these unauthorised sites.
- 10.122 SCC's concern with GAL's approach to airport access and parking charges is that they are the main deterrent to car use, and that the charges may need to be set at levels deemed unacceptably high to meet the SACs. For instance, would it be acceptable to airlines and ultimately passengers if the charges were to exceed the price of flights? In such an instance, a lower charge would potentially mean more driving to the airport and a greater

impact on the LRN and on our residents. SCC seek sensitivity tests to inform a range of responses and impacts and also highlight sustainable travel gaps.

10.123 The Applicant faces a challenge. It proposes improving the highway network around the airport that may possibly make driving to the airport easier, it proposes to increase the number of parking spaces and yet promises to meet SAC regarding passenger and staff mode share by providing 'push' (charges) and 'pull' (sustainable travel) measures. Yet if these measures are not balanced, the SAC commitments will not be met, or off-airport parking will increase, and both will impact the local road network and community.

Staff Travel

- 10.124 The forecasts in (APP-268 Table 8.2.1) indicate that the number of on-airport employees will increase progressively from 23,800 in 2016 to reach approximately 29,700 by 2047 for the future baseline scenario and approximately 32,800 by 2047 for the with NRP scenario, an increase of 3,100 employees.
- 10.125 The JSCs support the Applicant's intention to:
 - Maintain the number of staff car parking spaces at or below current levels of provision – providing that it does not lead to any off-sire provision or additional onstreet parking
 - Introduce measures to discourage single-occupancy private vehicle use by staff for journeys to and from work
 - Incentivise active travel use and increase public transport discounts for staff.
- 10.126 Whilst measures have been included in the model that demonstrate that SAC for employee travel are likely to be met, the JSCs are concerned that this may have been achieved by the application of a £5 parking fee for solo car drivers in the model (<u>APP-268</u> Paragraph 6.7.4). As such parking is generally free, the JSCs would like to understand what mechanisms other than direct pricing, would be available to Gatwick to achieve an equivalent generalised cost increase to encourage mode switch. Furthermore, the JSCs would like to understand what the implications of failing to gain sufficient mode switch may be, as any displaced parking on to local roads would create an unacceptable impact on the local road network and to residents, and this is a real possibility, especially around local transport hubs, such as bus stops.
- 10.127 Whilst it is obvious that constraining or reducing the size of the staff car park will limit the number / proportion of staff driving to work, it is not evident what measures will be introduced to discourage single-occupancy private vehicle use by staff for journeys to and from work or to incentivise active travel use and increase public transport discounts for staff. Failing to strike the right balance could well lead to on-street parking by staff, which impacts the LRN and residents.

Enhanced on-site facilities for active travel users.

10.128 The JSCs welcome enhanced on-site facilities for active travel users, and it is noted that some of the active travel infrastructure proposed is on-site, including the Active Travel route between Longbridge Roundabout and the North/South Terminals. However, it

appears that no additional cycle parking is planned, particularly for those wishing to use electric bikes (note also this must be convenient, undercover, safe and secure).

Enhanced regional and local bus or coach services

- 10.129 The Applicant proposes providing what they term as reasonable financial support to enable the services detailed in <u>APP-090</u> (Table 2) to sustain their operation and promote their use for a minimum of five years. The JSCs support the funding to support local journeys and encourage greater staff travel by public transport. However, SCC seek further clarification of the measures that will be put in place to ensure that this happens and why only five years are considered acceptable.
- 10.130 Agreement with operators and/or local authorities will be needed on the detail of each route, as GAL recognise, with the following enhancements proposed within Surrey:
 - Route 20 enhancement to 6bph daytime, 4 bph early/late
 - Route 22 enhancement to 2 bph in peaks, 1 bph other times
 - Route 100 enhancement to 6bph daytime, 4 bph early/late
- 10.131 Furthermore, a priority must be more night services which would encourage more shift workers to travel sustainably by bus. We particularly query why the 420 route is not a named service for improvement as this is a route that we would also welcome improvements to.
- 10.132 There are also area specific queries. While the increase of service to Route 22 is welcomed, the sufficiency and effectiveness of the enhancement are questioned in terms of whether they go 'far enough' to invite additional uptake and support the modal shift. The coverage of that route is the only available bus service for Mole Valley communities to access the airport and takes no less that 1hr 10mins from end to end, as such, it would still be more time efficient to use private modes or transport or taxi's etc. If public transport provisions are not improved, demands for travel by car are unlikely to lessen to effective levels without proper intervention. MVDC consider that new/amended alternative routes, in addition to the Route 22 enhancements, would be of benefit.
- 10.133 Additional details need to be confirmed and secured through the DCO. As highlighted in the Stagecoach Relevant Representation questions remain in relation to:
 - Hours of operation
 - Whether proposals relate to Sundays
 - Whether proposals relate to entire or part routes
 - The fact that routes may not be commercially viable after 5 years
 - Why have enhancements to routes 400, 420 and 460 not been included
- 10.134 Discussion with operators is needed as revisions to the proposed enhancements and inclusion of other routes could result in a better range of services.
- 10.135 The Surrey Bus Service Improvement Plan references a number of bus priority measures along the A23 corridor which will support local bus services to Gatwick. Within the highway works for the scheme there is no mention of Gatwick introducing any bus priority measures; only supporting zero emission buses. If the mode share targets are to be achieved buses need priority to make them an attractive alternative to the car, having zero

emission buses alone is not going to achieve modal shift. This appears to be a missed opportunity.

Transport Modelling

Modelling Suite

- 10.136 SCC is concerned that the modelling tools adopted cannot be considered accurate enough to provide confidence in their outputs. This raises concerns whether it is likely that The Applicant will be able to meet their Surface Access Commitments both in general terms and also whether the elements of the NRP Scheme are sufficient (i.e. adequate walking and cycle links etc.) but also whether the Environmental Statement has thoroughly assessed all of the potential impacts. Specifically, these relate to the following:
 - The highway model has introduced a tiered approach to calibration and validation standards, yet the tolerances applied to calibration/validation have not been applied to impact assessments.
 - The public transport model validation over-estimates public transport demand in Greater London and the South East and does so significantly for the county of Surrey
 - The lack of interaction between the highway and public transport models may mean that future year bus and coach travel will not reflect delays associated with traffic growth over time and that may result in over-estimated demand for these modes.
 - The realism test results for car fuel costs, which are higher than TAG criteria, may result in a greater shift away from car than might be otherwise be expected.
 - Elements of the core scenario uncertainty log is dated and includes schemes and public transport services that are unlikely to materialise or materialise when predicted.
- 10.137 To address the first point, SCC seek to understand the impacts of the NRP on their network using a range of traffic flows that reflects the tolerances applied in calibration. For instance, if calibration required 95% accuracy but 90% accuracy was adopted then apply +/-5% to the baseline and with NRP flows and determine if other impacts would be experienced.
- 10.138 Regarding the second point, the success of the rail provision to the airport is the vital 'pull' measure to the push of charging to access or parking. Whilst SCC support high levels of rail access to the airport, it is concerned that the success of the Surface Access Strategy depends very heavily on rail mode share which is itself based on a return to pre-Covid levels of services as well as those schemes listed in (APP-260) para 9.2.5. Should services not be delivered as forecast, and the Applicant has only limited influence in this regard as it is neither network provider nor service operator, the Surface Access Strategy would not be successful and the impact on travel to Gatwick is likely to shift to the car and impact on LRN.
- 10.139 SCC has compared the 2019 winter rail timetable with the 2023 winter rail timetable to understand what impact Covid had on rail timetables. During the period between the peak hours, SCC noticed that in 2019 there were 20 services between London and Gatwick that arrived at Gatwick between 12pm and 1pm, whereas in 2023, there were 16 services between London and Gatwick that arrived at Gatwick at that time. SCC do welcome the

increased service in the North Downs Line. However, SCC raise this as <u>(APP-260</u> section 6.8 highlights how the rail mode constant was adjusted to reflect issues associated with reduced levels of service associated firstly with Thameslink in 2016 and the new timetable in 2018. SCC wonder if the mode constant has been similarly adjusted to reflect the post-Covid timetable.

10.140 To address the other points, SCC have asked for sensitivity tests to be undertaken that reflect conditions in which the SACs are not met either because planned rail improvements do not materialise, or access/parking charges cannot be set (as they are not deemed acceptable) at the levels required to influence behaviour. This is pertinent as the DCO does not prescribe rail service levels or the access and parking charges.

Micro-Simulation Model

- 10.141 SCC is concerned that the VISSIM model extent includes only one junction in Surrey's network (Longbridge Roundabout) yet should be much larger. The model appears to be skewed towards the Crawley area, yet based on the distribution of airport traffic the Horley area should feature more heavily (<u>APP-258</u> Transport Assessment Diagram 12.3.2).
- 10.142 In particular, the A23 Brighton Road / Massetts Road signal junction is around 350m away from Longbridge Roundabout and thus the traffic pattern arriving at Longbridge Roundabout will be different in the model due to the signal operation. Therefore, the current model is not likely to represent the true operational impact on Surrey's road network. Furthermore, the A23 Brighton Road / Vicarage Lane signal junction is operating at capacity in the peak hours, so even 5-6% change in traffic flows is likely to result in significant congestion and delays on Surrey's road network, especially when the junction is operating at capacity. Therefore, the model should be extended to include more of SCC's road network as follows:
 - A23/Massetts Road
 - A23/Victoria Road
 - A217/Tesco Roundabout
 - A217/Hookwood Roundabout

Baseline Environment

- 10.143 Table 148 of Transport Assessment Annex B Strategic Transport Modelling (APP-260) shows that the M25 is forecast to be at capacity in 2029 in the westbound direction in the morning peak and in the eastbound direction in the evening peak. For this reason, little change in flow is shown on the M25 in any project scenario in Table 148. It is more likely that additional airport traffic uses the SRN (Diagram 12.3.1 of (APP-258) shows 21-28% of airport traffic using the M25 west of junction 8) and therefore, an equivalent volume of traffic must be displaced from the SRN on to the LRN.
- 10.144 SCC have concerns with such high levels of background traffic on the SRN, as it is inevitable that any growth in airport traffic will increase traffic on the local road network either directly or indirectly as referenced above. That it has not been detected in the assessments repeats concerns raised regarding the traffic models used or assessment method.

- 10.145 SCC wish to understand the volumes of traffic transferred on to its network either directly to/from the airport or displaced from the SRN on to its network so that the impacts can be ascertained.
- 10.146 SCC considers the use of June data an appropriate method to reflect network conditions and travel patterns in the model, accommodating both a neutral period on the background network and a "busy" period for the airport.

Covid sensitivity

10.147 SCC notes that the modelling has been updated in several aspects in addition to reflecting post-COVID growth forecasts <u>AS-121</u> and are currently reviewing it with a view to commenting in more detail at deadline 2. SCC also await confirmation regarding whether this should now be considered as superseding the previous modelling or just a sensitivity test.

Surface Access Commitments

- 10.148 The Surface Access Commitments (SAC) ensure that the Applicant's commitments to sustainable travel, made as part of the NRP, and the core surface access outcomes which have been identified in the Environmental Statement and Transport Assessment are delivered in Environmental Statement: July 2023 Appendix 5.4.1: Surface Access Commitments (<u>APP-090</u>). The mode share commitments have been proposed by the Applicant to provide confidence and assurance as to the ultimate outcome that will be achieved, whilst maintaining flexibility as to the measures which the Applicant will utilise to do so (<u>APP-090</u> Paragraph 5.1.2).
- 10.149 The JSCs support having such commitments and welcome the fact that the impact on their network is likely to be relatively constrained if the commitments are met. However, concern has been expressed above that meeting the commitments will be a challenge, with a number of elements outside of GAL's control, requiring ongoing monitoring and development, and on-going adjustment to access and parking charges. Furthermore, the JSCs are not aware of the levels of parking and access charge that will be required to deliver the mode share levels published, and whilst the values used in the model are presented, these are not benchmarked and imply increase in the order of 50% (APP-258 para 6.10.8 and 7.3.5). Given these challenges, it is hard for SCC to be sure that the measures proposed will be sufficient for the SACs to be met and to be convinced that the assessment of impacts and effects is robust. Finally, whilst aspirational targets have been suggested, SCC believe that these should become targets sometime before 2047. Our observations on these matters are presented below.

Mode Share Commitments

10.150 Whilst transport models are used to provide forecasts of scenarios with and without certain interventions, accuracy is said to lie in the difference between the scenarios rather than the absolute demand on a link/service in some future year. This is because the demand on a link/service will depend on its use in base conditions, the impact of economic factors, such as housing, jobs and costs of travel, and finally the impact of the intervention itself

- 10.151 The Transport Assessment is rightly based upon the difference between the business-asusual scenario and with the NRP scenario and SCC recognise that an assessment scenario that includes the commitments being met is required for the Environmental Statement.
- 10.152 Looked at in this way, it is possible to establish the relative change in mode share as a result of the interventions as outlined in (<u>APP-260</u>) Table 72 Future baseline air passenger surface access mode shares, Annual average day and Table 135 (With NRP air passenger surface access mode shares, Annual average day). From this, it can be concluded that in 2032, car (park and fly) reduces by 2% and bus and rail grow by 1% each. On this basis, public transport mode share needs to be at 53% before the project related interventions start, for SCC to have confidence that the modelled outcomes will become reality in 2032 and that the surface access commitments are met. Whilst the model results shown in <u>APP-260</u> Table 72 show public transport mode share growing from 46% in 2018/19 to 53% by 2032, in 2022 the annualised public transport mode share for Gatwick Airport was 43.7% (<u>APP-258</u> para 29). This indicates that there is a long way to go to get back to previous / forecast levels of public transport mode share.
- 10.153 SCC has some concerns with the model (discussed above) but is particularly concerned here with the reality of delivering interventions to meet the targets:
 - there is heavy reliance on proposed additional rail measures to meet these commitments, the delivery of which are out of the Applicant's control; and
 - airport access and parking charges are the main deterrent to car use and the charges may need to be set at levels deemed unacceptably high to meet the targets (would it be acceptable if the charges were to exceed the price of flights).
- 10.154 SCC have significant concerns that with so much emphasis on rail to achieve mode share commitments, and the delivery of rail schemes being beyond the Applicant's control, the risk of commitments not being achieved remains high. Furthermore, <u>APP-090</u> para 6.2.5 indicates that where "the mode share commitments have not been met or, in GAL's reasonable opinion, suggests they may not be met (having regard to any circumstances beyond GAL's control which may be responsible), GAL will prepare an action plan to identify such additional interventions which are considered reasonably necessary to correct such actual or potential non-achievement of the mode share commitments." SCC would like to ensure that "circumstances beyond GAL's control" excludes the real rail timetable (and other public transport timetables) being different to that modelled as part of this application.
- 10.155 What is not clear are the possible impacts of NRP if the SACs are not met. The upshot of which is not only potentially greater impacts on our road network than is being forecast, but a failure to meet the targets would render the Environmental Statement as not presenting a possible worst case.
- 10.156 In the first instance, SCC seek sensitivity tests that reflect that different outcomes may occur. Secondly, but more importantly, SCC propose a change in approach to that which is being pursued by the Luton Airport DCO, which favours environmentally lead growth. Such an approach would enable growth/development/expansion once targets have been met rather than the Applicant's approach which relies on measures to achieve targets after the growth/development/expansion has occurred. This has been raised previously in SCC's Relevant Representations submission and its adoption would:

- still result in the same outcomes regarding commitments 1 to 4;
- utilise the same levers identified in commitments 5 to 12; and
- be monitored and supported by commitments 13 to 16.

Surface Access Commitment 1 and 3 – Passengers

- 10.157 <u>APP-260</u> (Table 133) presents evidence that over 70% of the growth in passenger movements with NRP in 2032 compared to the base year is forecast to travel by public transport (55k growth in public transport out of 74k growth overall). While SCC supports this, SCC is surprised that over half of the car-based growth is forecast to travel by taxi (10.2k growth in taxi out of 19k growth by car). Thus, SCC seeks evidence to demonstrate where these users have travelled to/from and what has influenced their use of a mode that attracts both a fare and an airport access charge.
- 10.158 This increase in taxi use is also a concern to SCC as the taxi mode typically doubles the number of vehicle movements on the road per passenger trip and SCC wonders what public transport measures may be required to encourage these passengers to use public transport. Furthermore, the 98,500 cars trips (Park & Fly, Kiss & Fly, Car rental and Taxi) shown in <u>APP-260</u> Table 133 become 158,300 car journey legs per day (see fig. 10.1 below). In such circumstances, car journeys represent a 60% mode share. The impact of this return leg is 60% more car trips than would be the case if the car was either parked at the airport or not used.

Figure 10.1 NRP Strategic Transport Modelling Report -	 Journeys in 2032 and Journeys as vehicle
legs	

Mode	With Project air passenger surface access trips (thousands/day, High June)				
	2032 journeys	2032 journeys as legs			
Park & Fly	34.5	34.5			
Kiss & Fly	27.3	54.6			
Car rental	4.2	4.2			
Тахі	32.5	65			
Car total	98.5	158.3			
Rail	90.7	90.7			
Bus	17	17			
Public transport	107.7	107.7			
Total	206.2	266			

Source: <u>APP-260</u> (Table 133)

10.159 Further to the information provided in <u>APP-260</u> (Table 133), SCC supports the evidence presented that rail passenger numbers will double, meaning that over 60% of the growth in passenger movements between the base year and 2032 with NRP is forecast to be in rail passengers. However, it does reveal the extent to which improved rail service provision is essential to drive public transport mode share. SCC is concerned that should any of the of significant rail investment shown in <u>APP-260</u> (Paragraph 9.2.5) not materialise, including a return to pre-Covid timetables, the passenger and employee mode share could be severely impacted.

- 10.160 Even if train services do grow as forecast, SCC is concerned sufficient capacity on the network with Croydon Junction remodelling and also that there is sufficient capacity within the carriages to accommodate the additional passengers comfortably. SCC would welcome further discussions on the provision of significantly enhanced rail capacity as this is the predominant sustainable mode for passenger travel.
- 10.161 Whilst SCC supports the extra 10k extra journeys by bus/coach between the base year and 2032 with NRP (<u>APP-260</u> Table 133), SCC is concerned that the bus and coach services are a fraction of that achieved at Stansted,

Surface Access Commitment 2 and 4 - Employees

10.162 The results presented in <u>(APP-268</u> Paragraph 8.6.12) indicate that the employee mode share will meet its commitment of 55% of airport staff journeys to and from the Airport to be made by public transport, shared travel and active modes. <u>APP-258</u> para 53 notes that "At least 15% of airport staff journeys originating within 8km of the Airport to be made by active modes". However, <u>APP-258</u> para 8.6.16 states that model outputs "*indicate that around 9% to 10% of staff journeys made to and from locations within 8km of the airport, compared to the target of 15% for such journeys*". The remainder of <u>APP-258</u> para 8.6.16 states that the model does not include specific walking and cycling improvements (whether infrastructure, facilities, or incentives) but the JSCs are concerned that no further mitigation is proposed to ensure that this target is met.

Surface Access Commitment 5 and 6 - Enhanced regional express bus or coach service

- 10.163 The JSCs support enhanced regional and local bus services but regrets that no new services will be implemented within the county (<u>APP-090</u> Table 1). The JSCs would be keen to work with the Applicant to identify potential routes and additions to existing services.
- 10.164 The JSCs need to know what constitutes "reasonable funding" and how they will be "liaised with" to ensure that the proposed (or other) services can be integrated in to the existing network and that these opportunities can be maximised. The JSCs will be keen to ensure that 'unofficial' park and rides do not materialise and that no undue affects are felt on the local network.

Surface Access Commitment 7 – The Applicant will also provide reasonable support for direct services from Crawley Down and Copthorne to Gatwick to improve local accessibility to the airport.

10.165 The JSCs would be keen to work with the Applicant to identify potential routes and additions to existing services in regard to the policy to Redhill-Horley-Gatwick Airport super-bus network.

Air passenger car parking

Surface Access Commitment 8 - The Applicant therefore commits to provide funding for: support for effective parking controls and/or monitoring on surrounding streets if considered necessary by the relevant local authority; and/or support local authorities in their enforcement actions against unauthorised off-airport passenger car parking.

10.166 The JSCs need to know what level of funding will be made available and what targets will be set to ensure that the NRP does not lead to traffic nuisance in the surrounding neighbourhood, including indiscriminate and unauthorised parking and waiting. The JSCs are concerned that the proposed S106 agreement does not provide any funding for parking enforcement within Surrey and seek that this be revised.

Surface Access Commitment 9 – using parking charges to influence air passenger travel choices.

10.167 Whilst the JSCs support having such commitments, concern has been expressed above that the passenger commitments rely very heavily on parking charges. The JSCs recognise that the Applicant is a commercial operation and will amend its parking charges in response to anticipated demand at different times of year and needs to be able to retain the flexibility to do this for commercial reasons (APP-090 Paragraph 5.2.9). However, the JSCs are particularly concerned that there could well be a conflict between the level of parking charge required to raise revenue at certain times of the year and the level required to deter use; such that charge levels may be deemed unacceptably high and SAC commitments not met. The impact of which would be more car travel and potentially greater impacts on the LRN.

Forecourt charging

Surface Access Commitment 10 – forecourt charges to influence passenger travel choices.

10.168 SCC support having such commitments, not least because kiss and fly trips involve two vehicle movements to each movement to or from the airport. However, concern has been expressed above that the passenger commitments rely very heavily on access charges and that they may need to be set at levels deemed unacceptably high to meet the and SAC commitments, meaning that they are not met. The impact of which would be more car travel and potential impacts on the LRN.

Staff travel

Surface Access Commitment 11 – no increase in staff parking provision as part of the project.

10.169 Whilst SCC support having such commitments, it does require Commitment 8 to be enforced for this commitment to be truly effective.

Surface Access Commitment 12 – introducing measures to discourage single-occupancy private vehicle use by staff and to implementing incentives for active travel and increasing discounts for staff using public transport.

10.170 Whilst the JSCs support having such commitments, the precise nature of those measures will need to be defined in due course, in consultation with employers and staff.

Sustainable Transport Fund

Surface Access Commitment 13 – The Applicant will continue to use the STF to support measures that will help to achieve the mode share commitments.

10.171 The JSCs supports the retention of a Sustainable Transport Fund to deliver sustainable transport measures over and above those required to mitigate the impact of the authorised development. Proposals are still being reviewed and there are a range of clarifications sought. The local authorities are clear that the concept of the STF needs to be decoupled from the SACs.

Transport Mitigation Fund

Surface Access Commitment 14 – The Applicant will also set aside a Transport Mitigation Fund (TMF) to support further interventions.

10.172 Proposals within the S106 are still being reviewed but it is clear that more information is needed on purpose, eligibility and operation of the fund. The local authorities also query how the proposed value of the fund has been calculated.

Monitoring Commitments

Surface Access Commitment 15 - The Applicant commits to undertaking a comprehensive monitoring exercise.

10.173 Similarly, significant discussion is required in relation to monitoring and intervention to address how matters will be dealt with if targets are not met.

Surface Access Commitment 16- The Applicant will prepare an Annual Monitoring Report (AMR).

- 10.174 The JSCs welcome the fact that the first AMR will be produced no later than six months before the commencement of dual runway operations (<u>APP-090</u> Paragraph 6.2.1).
 However, we ask that this be made a requirement that determines that dual runway operations can only commence when the mode share SACs are met.
- 10.175 However, the JSCs note in <u>APP-090</u> Paragraph 6.2.6, that should two successive AMRs continue to show that the mode share commitments have not been met or, in the Applicant's reasonable opinion, suggests they may not be met (having regard to any circumstances beyond the Applicant's control which may be responsible), the Applicant will prepare a further action plan. What is not evident is what would happen should this plan and a third AMR shows that the mode share commitments have not been met. The JSCs

consider that three AMR periods is too long to resolve any failings and that growth should be curtailed until the SAC are met. Our proposal to avoid this problem is that of Green Controlled Growth.

Further Aspirations

- 10.176 The Applicant has identified the following aspirational mode share targets within the SAC, which indicate the Applicant's longer-term goals. These are not commitments under the SAC but will provide context for future actions in relation to surface access interventions and for the development of future ASAS action plans and targets:
 - A minimum of 60% of air passenger journeys to and from the Airport to be made by public transport;
 - A minimum of 60% of airport staff journeys to and from the Airport to be made by public transport, shared transport and active modes;
 - A reduction of air passenger drop-off and pick-up car journeys at the Airport to a mode share of no more than 10% of surface access journeys;
 - At least 20% of airport staff journeys originating within 8km of the Airport to be made by active modes; and
 - At least 50% of airport staff journeys originating within 16km of the Airport to be made by public transport.
- 10.177 The JSCs support having such aspirations and would like to work with the Applicant to make them a commitment, in line with a Green Controlled Growth approach, that ensures that the impact on SCC's network and residents is kept to a minimum.

Securing the Surface Access Strategy

- 10.178 Appendix 5.4.1: Surface Access Commitments is secured as a legally binding commitment under the DCO, providing an additional level of assurance and security to stakeholders as to the Applicant's commitment to its specified surface access outcomes. (<u>APP-090</u> Paragraph 2.1.7).
- 10.179 The JSCs are concerned that the following elements of the surface access interventions, which form part of the SACs (Paragraph 58 of <u>APP-258</u>), remain unspecified:
 - Financial support for enhanced regional express bus or coach services and local bus services;
 - Funding to support local authorities in implementing additional parking controls or in enforcement action against unauthorised off-airport passenger parking sites;
 - Charges for car parking and forecourt access to influence passenger travel choices;
 - Introducing measures to discourage single-occupancy private vehicle use by staff, incentivise active travel use and increase staff public transport discounts;
 - Use of the Sustainable Transport Fund to support sustainable transport initiatives; and
 - Provision of a Transport Mitigation Fund to support additional measures should these be needed as a result of growth related to the Airport.

- 10.180 A draft S106 was first received in early February 2024 and the local authorities are currently reviewing it.
- 10.181 Furthermore, SCC propose an alternative approach that could easily fit within the existing SAC framework and would still deliver the outcomes that GAL desire. By adopting an approach similar to that of Luton Airport or referred to as Green Controlled Growth, whereby growth is only permitted after targets have been met, SCC could be confident that the outcomes described in the Environmental Statement and Transport Assessment would happen as described. Instead of GAL committing to achieve annualised mode share targets by the third anniversary of the commencement of dual runway operations and on an annual basis thereafter, GAL should not start operations until the commitments are met, with subsequent passenger growth being constrained until targets are met again. This way the same outcomes are delivered, without uncertainty, and would ensure that the impacts that have been presented are the likely worst case. SCC and other authorities propose to submit an interpretation of this Green Controlled Growth at Deadline 2.

Impacts

Missed Opportunities

- 10.182 The JSCs and parish councils within Surrey have responded to the formal consultation stages for the NRP including the Relevant Representations stage of the DCO. Issues raised but not addressed include:
 - impacts for the rural road network, and its users, which is often used as a cut-through by passengers and workers for Gatwick, especially when the SRN experiences congestion;
 - concerns regarding existing capacity issues on the rural road and SRN network
 - insufficient public transport provision and connections, including for more rural areas;
 - increased risk of unauthorised, off-airport parking;
 - lack of support for pedestrians and cyclists who will be impacted by increased transport levels and related speeding; and
 - additional noise and emission impacts generated by road vehicles with communities being impacted both from the ground and the skies.
- 10.183 The JSCs consider that rail-based provisions intended to offset the NRP and serve passengers and commuters rely on third party proposals. Despite the Applicant's assertions that the planned Gatwick Station upgrades and rail project will provide suitable rail interventions, the joint Councils considers that this is not extensive enough to provide real public and economic benefit as a large amount of this work relates to improving on site facilities and not the frequency and efficiency of services.
- 10.184 The joint Councils considers the Applicant to have been short sighted on rail matters and not to have looked at wider strategic opportunities that would reap rewards for the airport, businesses and communities alike. Noting that while access to sufficient services is important to encouraging rail travel, uptake is also impacted by other factors contributing to the use of stations and the network such as deteriorating structures, poor facilities, accessibility issues, etc., all of which, if remedied, would greatly increase rail usage. No regard is given to such factors and both Dorking (west) and Dorking Deepdene on the

North Downs Line suffer with these issues to varying extents and it presents an obstacle to usage.

10.185 While it is acknowledged that the physical conditions of existing stations may not a direct result of the NRP, addressing aspects which could increase usage and modal shift would be a positive outcome for the Airport but is an opportunity that has been overlooked. With a scheme such as this merely addressing the impacts proven to be caused by the development is not positive planning and increasing its rail offer only has benefits for the Airport both in terms of sustainability and financially. It is considered that the scheme would benefit from exploring investment to resolve accessibility issues at Dorking Deepdene and more innovative solutions to relevant stations elsewhere on the feeder network for the airport. The Applicant is also well placed to widen these conversations with external stakeholders to secure delivery.

Assessment of effects – Initial Construction Phase: 2024 - 2029

10.186 The Initial Construction Phase has been considered in two parts: Airfield Construction and Highways Construction.

Airfield Construction

- 10.187 Airfield construction covers the impact of peak airfield construction vehicle traffic on the highway network. The construction works consist of the reconfiguration of existing maintenance and airfield facilities, alterations to the existing northern runway, airfield works to support use of the realigned northern runway, and extensions to North and South Terminals.
- 10.188 Paragraph 15.3.8 of <u>APP-258</u> outlines a peak construction workforce of approximately 1,350 staff, with various assumptions. The JSCs would like the Applicant to incentivize works to achieve a mode share of greater than 10% using public transport to reduce the impact on the local road network.
- 10.189 Paragraph 15.4.8 of <u>APP-258</u> presents the estimated construction vehicle trip generation to be 40 (HGVs and LGVs) in and out per hour along the M23 Spur. This estimate has been reached by averaging vehicles over a 10-hour shift and subsequently presents a smooth average for construction vehicle traffic, rather than presenting any peaks. The JSCs note that the TA reports that these construction vehicles will travel via the M23 Spur.
- 10.190 In terms of the impacts of the airfield construction, the strategic modelling shows no link exceeds an increase in total traffic of 30%. The data shows that no link within the study area is expected to experience changes in traffic of over 30% as the result of the Project during the airfield construction period. Whilst HGV flows are forecast to increase by more than 30% along some roads in both peak periods, it is not forecast to do so on the SCC's network. Whilst SCC acknowledge that the magnitude of impact is considered to be negligible under the situations described above, that is predicated on a smooth profile of vehicles entering and exiting the site and then via the SRN.

Highway Construction

- 10.191 Highway construction covers the impact of constructing the surface access improvements on the highway network and would take place after the airfield construction and with the NRP in its opening year. The assessment for the highway construction period is based on the stage in the programme at which there would be concurrent works at Longbridge, North Terminal, and South Terminal Roundabouts, requiring traffic management across the whole of the affected area.
- 10.192 The highway works construction period has been assessed by overlaying construction activity onto the modelling for the first year of operation, which also includes the additional air passenger demand arising from the opening of the new runway. SCC welcomes that the most complex phase of traffic management has been selected for the assessment, which is expected to occur for the purposes of the assessment in the second half of 2029, for a sixmonth duration (<u>APP-258</u> para 15.5.20).
- 10.193 Highway construction modelling shows medium to high impacts in certain locations, however SCC are concerned that no mitigation has been proposed. Table 15.5.1 in the TA (<u>APP-258</u>), presents nine locations that are expected to experience a medium or high impact during highway construction in Table 15.5.1:
 - Four are located in Croydon or Epsom and given the distance to Gatwick Airport have been attributed to model noise. SCC agrees these can be attributed to model noise.
 - One location on the SRN, at the M23/M25 southern diverge, with medium impact (V/C increases by 2% from 93.7% to 95.8%).
 - The remaining four locations are of interest to SCC, located between Longbridge Roundabout and the South Terminal Roundabout. All locations are shown to be operating at or close to capacity during the highway construction period without mitigation being proposed.
- 10.194 SCC is concerned about the impact of construction of the SACs on its road network. In particular:
 - The high impact on Longbridge Roundabout for 6 months during highway construction, could lead to increased traffic on other routes with traffic rerouting to avoid the roundabout.
 - For the A23 Longbridge reconstruction, it appears that the south side utility bridge won't be used for pedestrians and the alternative route would be to use the north footway and then go anticlockwise around the whole roundabout. A widened utility bridge for pedestrians etc. would need to be considered in the scheme boundary extent. A controlled pedestrian crossing may need to be considered north/east of the Longbridge Roundabout if users are expected to use the northern footway.
 - The Applicant will need to engage with SCC regarding our Lane Rental schemes as well as the Permit scheme within the DCO as Surrey has commenced operation of Lane Rental Schemes under S74a of NRSWA '91.
 - Replacement of the Balcombe Road overbridge will most likely close the road under to pedestrians for a period with a temporary tunnel underneath to protect pedestrians.

Therefore, SCC requests further details regarding reconstruction of the Balcombe Road bridge as this has not been indicated previously.

- 10.195 SCC wish to see mitigation during the Longbridge Roundabout construction, A23 reconstruction and Balcombe Road Bridge installation. The Applicant also needs to engage with SCC regarding consideration of the Lane Rental scheme as well as the Permit scheme within the DCO.
- 10.196 Figure 15.3.2 in <u>APP-258</u> shows the Construction access routes proposed. SCC seek further information regarding the Construction access routes. Specifically, SCC is concerned about the impact on Longbridge Roundabout, Balcombe Road and other local roads, and question the restricted use access along Balcombe Road and Horley Road.
- 10.197 SCC notes that whilst previous information indicated that Longbridge Roundabout would form part of the main construction routing, it now appears that construction routing for the other compounds beyond South Terminal (Airside, MA1, Car Park B, Car Park Y, Car Park Z,) will use the North Terminal Roundabout for access. SCC requests confirmation that Longbridge Roundabout is only needed for access to the Longbridge Roundabout compound.
- 10.198 In addition, SCC seek clarification for the use of the northeast and northwest arms of Longbridge Roundabout as primary access routes and the inclusion of these arms as construction access routes. Furthermore, the entrance to the Longbridge Roundabout compound is not defined. Therefore, SCC seeks confirmation of this.
- 10.199 SCC is concerned that separate entrances to the South Terminal compound are proposed for HGVs (from the roundabout) and private vehicles (from Balcombe Road). This has not been discussed previously as access was anticipated from the roundabout. SCC is concerned about the impact on Balcombe Road and the Local Road Network. As local workers should be travelling by sustainable modes, this implies that the workers using this access will be from further afield, yet Balcombe Road is not directly linked to the SRN as the roundabout is. This implies that an extended journey on the local road network is required. Therefore, SCC wish to see all access to the South Terminal compound from the South Terminal Roundabout.
- 10.200 Finally, SCC acknowledges the high-level measures, promotion and monitoring proposed in the Outline Construction Workforce Travel Plan, but as these are high level with nothing confirmed, an agreed Full Construction Workforce Travel Plan will be needed for SCC to be able to agree to these. Similarly, SCC expects that a Full Construction Traffic Management Plan will be required as part of any DCO permission, and this would need to be agreed with SCC prior to construction. GAL state construction vehicles will travel via the M23 Spur only to get to/from the construction sites. What is unclear is what the impacts to the local roads / communities could be if this is not ensured. Therefore, SCC require GAL's construction to operate as per the proposed routing via the M23 Spur with minimal use of SCC's network other than access to the Longbridge Construction Compound that will require use of the Longbridge Roundabout and A217 between Longbridge and Tesco Roundabouts.

Assessment of Effects – Opening Year: 2029

- 10.201 The assessment period covers the summer period after the first year that the new runway opens in 2029. Opening of the northern runway is expected to generate approximately 4 mppa (million passengers per annum) more demand, totalling 61.3 mppa with the Project (Paragraph 58, Page 4 <u>APP-258</u>).
- 10.202 Surface access improvements will be being delivered during this time period, including:
 - South Terminal roundabout improvements (2029-2031)
 - North Terminal roundabout improvements (2029-2031)
 - Works to Longbridge roundabout (2028-2031)

Highway Impacts

- 10.203 SCC note that the VISSIM modelling concentrates on the 2032 and 2047 assessment years, so the following operational impacts are noted from the strategic model results only.
- 10.204 The strategic modelling assessment indicates that two junctions (located in Croydon and Epsom) would experience a medium or high impact in the 2029 assessment, based on a comparison between the future baseline and with NRP. The proportion of airport-related traffic at these junction is less than 1% of the total traffic volume and the additional number of airport related trips resulting from the Project is negligible (less than five vehicles). SCC supports that the impacts at these junctions are attributed to model noise, and no mitigation required/ proposed (Table 12.5.2, <u>APP-258</u>).
- 10.205 Paragraph 12.9.30 of the ES reports a number of links expected to experience a greater than 30% change in traffic flow, with the severance sensitivity of pedestrians and cyclists along the highway links ranging from low to high. SCC wish to seek clarification on severance impacts and the locations with medium to high sensitivity within the network. Severance and safety issues will act as deterrents to walking and cycle in some locations, which could threaten mode share targets if ignored/not mitigated.

Public Transport Impacts

- 10.206 The public transport modelling work assumes that a number of local and regional bus service improvements have been implemented by 2029 (Paragraph 11.3.15, Page 131 <u>APP-258</u>). SCC supports enhanced regional and local bus services but regrets that no new services will be implemented within the county (<u>APP-090</u> Table 1). SCC would be keen to work with the Applicant to identify potential routes and additions to existing services. SCC also raise concern that the financial support for enhanced regional express bus or coach services and local bus services, which form part of the SACs (Paragraph 58 of <u>APP-258</u>), remains unspecified.
- 10.207 With the assumed improvements to bus and coach services, the modelling work has shown that with the Project, demand on bus and coach services increases significantly across the assessment years from 5,600 daily passengers in 2016 to 10,500 in 2029 (Table 11.3.4, Page 133, <u>APP-258</u>). It has been assumed that operators would increase services to meet demand (<u>APP-037</u>, Paragraph 12.4.65, Page 12-64). In addition, the modelling of crowding on bus and coach services has not been considered within the modelling framework. SCC welcomes the possibility of additional bus and coach services within the county (although

notes that none have been specified). However, SCC wishes to understand the impacts and implications should the third-party operators fail to accommodate the growth in demand expected as a result of the Project and how this could affect other users of these services within Surrey.

- 10.208 SCC recognise the growth in demand from areas of Surrey is expected to be less significant than from other areas, nonetheless Surrey is concerned about a lack of public transport routes across the county and the likely reliance on the North Downs rail line as a result. We would like to understand how the Applicant will work with operators to ensure existing services are optimized as well as new routes/services considered or introduced.
- 10.209 Line loading and crowding analysis for the North Downs rail line shows that the impact of the Project on this line is expected to be very small in 2029. There is some higher crowding impact on the Brighton Main Line in the future scenario assessment, however standing capacity in the 2029 with the Project scenario is not expected to exceed 30% occupied on the AM northbound services or 20% occupied in the PM peak on southbound services.
- 10.210 SCC recognise that the modelled differences between the 2029 future baseline and future with Project scenario are small in terms of public transport impact. However, SCC wish to understand further how the Applicant intends accommodate the additional luggage requirements for passengers travelling to/from airports during the peak crowded times alongside commuters. Will changes be required to rolling stock? This is a concern as whilst the mode share targets apply to annual movements, it should also be important to meet the targets for as much of the year as possible.

Assessment of Effects – Interim Assessment Year: 2032

10.211 The Highway works are assumed to be completed by 2032 in VISSIM modelling, and through the SACs, the Applicant commits to achieving the mode share targets by the summer period 2032. By 2032, it is projected that demand at the Airport will have grown to 72.3 mppa with the Northern Runway compared to 59.4 mppa in the future baseline.

Highways Impacts

- 10.212 In <u>APP-037</u> para 12.9.108 the JSCs note that it is report that "*some locations have a high impact for cyclists*". The JSCs would like to where these locations are and what mitigation is proposed to address these impacts.
- 10.213 According to the strategic modelling junction assessment, the following junctions are expected to experience a medium or high impact (either part of the SRN or GAL road network):
 - An internal junction on Perimeter Road North, part of the Gatwick road network,
 - Some merges and diverges at the M23/ M25 interchange, and,
 - M23 Junction 9
- 10.214 VISSIM modelling was undertaken on the local highway network for 2032. The 2032 impacts on local roads are outlined in Section 13.5 in <u>APP-258</u> (Page 174):
 - AM peak, no significant queuing or congestion is indicated;

- M23 Spur performs better than in the future baseline, with less queuing on the exit from the South Terminal complex;
- Busy conditions at Longbridge Roundabout in the AM and PM peaks, similar to those seen in the future baseline, with spare capacity limited in both assessments for 2032 (Paragraph 13.5.5). SCC are concerned by the assessment at Longbridge Roundabout. Whilst extra capacity is provided for active modes at the junction, impacts for highway users could worsen. Therefore, SCC requests that GAL propose mitigation accordingly.
- In Figure 13.5.4, showing speed plots for the 2032 forecast year, the A23 London Road shows a reduction in average speeds compared to the future baseline, reflecting a change of speed limit part of the highway proposals.
- The model shows some slowing of vehicle speeds in / around the North Terminal junction, predominantly as a result of vehicles waiting at the new traffic signal junction with the A23 London Road, instead of having to travel north to Longbridge Roundabout to make a U-turn to return to the M23. SCC has concerns that the provision of the left turn from the North Terminal onto the A23 London Road makes travel by car easier for staff, which could work against the mode share targets outlined.
- 10.215 In terms of impacts to active modes, Table 12.9.16 (Page 12-131, <u>APP-037</u>) shows a number of links expected to experience a greater than 30% change in traffic flow, with the severance sensitivity of pedestrians and cyclists along these routes ranging from low to high. Of specific concern to SCC is A217 London Road (37% increase traffic). SCC wish to seek clarification on the severance impacts in this location. Severance and safety issues will act as deterrents to walking and cycling in some locations, which could threaten mode share targets if ignored/not mitigated.

Public Transport Impacts

- 10.216 By 2032, the highway works are assumed to be completed and through the SACs, the Applicant commits to achieving the mode share targets by the summer of 2032. This is the first year the Applicant will address any failure to meet the mode share targets. The modelling work assumes a number of public transport service improvements have been implemented by 2029 (discussed above), required to achieve the mode share targets. If by 2032, the third party public transport commitments have not increased/ been met to accommodate airport demand, SCC would like to understand what the impacts will be to users and how that translates to SAC mode share targets.
- 10.217 Whilst SCC support the extra journeys being made by bus or coach between the base year and 2032 with the Project (<u>APP-260</u> Table 133), SCC has to question the consequences if the private sector service improvements on rail and bus/coach are not delivered, and how this will impact the existing public transport services/users, local road network and mode share targets.
- 10.218 The line loading and crowding analysis for the North Downs rail line shows that the impact of the Project is expected to be small, with some crowding impacts occurring between Redhill and Reigate. In the 2032 assessment year with Project, the maximum Seated Load Factors during the AM peak period is 0.99 between Reigate and Redhill (eastbound). SCC recognises there are no capacity issues found on westbound services for 2032, and standing capacity is still available on all journeys both AM and PM. The JSCs are concerned

about the lack of alternative public transport routes across the county and the likely reliance on the North Downs rail line as a result. How would any shortfalls in the bus service provision that has been factored into the model, impact on this line, given lack of alternate routes? The JSCs would recommend the Applicant engage closely with Local Authorities and bus operators to make sure all existing bus routes are optimised across the county.

- 10.219 SCC note higher crowding impacts experienced on the Brighton Main Line in the 2032 future scenario assessment. The Project is estimated to contribute 295 additional passengers in the northbound direction in the AM network peak (2.5%). Southbound, the Project adds 558 passengers onto the future baseline line loadings during the PM network peak period (5.5% increase). Standing capacity in the 2032 with Project scenario does not exceed 30% occupied in the AM or 25% occupied in the PM peak.
- 10.220 The maximum Seated Load Factors on this line reach 1.9 (PM southbound) and 1.4 (AM northbound) on stopping services for the 2032 with Project scenario. For the northbound fast services, the Seated Load Factors are higher for the majority of the route and exceed 1.0 during the AM peak period from East Croydon to Norwood Junction, with the maximum Seated Load Factor reaching 1.4. In terms of Gatwick movements, AM London-bound services will serve airport arrival passengers, as the majority are expected to continue their journeys into London. In the PM peak, the seated load factors for southbound fast services are higher for the majority of the route, with seat capacity occupied (>1.0) between Clapham Junction, London Bridge and East Croydon. The maximum seated load factor is 1.7 on these services from London Bridge to East Croydon (Table 71-74 <u>APP-260</u>). With the crowding levels reported, how could this affect the mode share by acting as a deterrent to airport passengers continuing their journeys by rail, particularly those travelling during peak network times.
- 10.221 With regards to the crowding of services, the JSCs seek clarification on how the Applicant intend to ensure the rolling stock of these services is appropriate to accommodate the movement of Gatwick Airport passengers with luggage. There will be competing interests on lines with London-destined commuters also utilising this network. The Applicant needs to ensure engagement is taking place with operators so both these groups are accommodated for in terms of number of seats versus luggage areas. SCC recognises differences between the future baseline and future with Project scenarios are small in terms of crowding but wish to understand how additional luggage requirements of passengers using services to the airport will be accommodated.

Assessment of Effects – Design Year: 2047

10.222 Annual passenger demand for 2047 is expected to increase from 67.2 mppa in the future baseline scenario to 80.2 mppa with the Project.

Highway Impacts

Journey Time Changes

10.223 The analysis is presented to suggest that the journey time changes resulting from the Project are not expected to be significant in any location. The greatest increases in journey time would be two minutes in any of the modelled years compared to the future baseline, however, as we still have not agreed the modelling we reserve the right to disagree with this analysis. SCC is concerned about the impact on the journey times of buses, taxis and commuters including airport employees, as well as existing network users, including freight operators, the latter thereby potentially affecting the wider economy.

- 10.224 The key points outlined within the comparison of future baseline and with Project journey times across the modelled time periods and assessment years in relation to the SCC network are:
 - A23 north of Gatwick journey times between Longbridge Roundabout and Merstham would increase by up to six minutes in each direction from 2029 to 2047 in the future baseline. With the Project, northbound journey times would increase no more than an additional two minutes and southbound journey times would decrease by up to three minutes by 2047;
 - A217 north of Gatwick journey times between Longbridge Roundabout and M25 Junction 8 would increase by up to eight minutes northbound and up to three minutes southbound from 2029 to 2047 in the future baseline. With the Project, northbound journey times would decrease by up to five minutes by 2047, and southbound journey times would experience changes ranging between a decrease of two minutes and an increase of one additional minute by 2047, compared to the future baseline;
 - A22 from M25 J6 to Maresfield journey times would increase by up to six minutes northbound and up to nine minutes southbound between 2029 and 2047 in the future baseline. With the Project, the greatest change would be two additional minutes for the northbound journey;
 - A2011/A264 from M23 J11 to East Grinstead via Crawley journey times would increase up by to eight minutes eastbound and up to six minutes westbound. With the Project, the greatest change would be one additional minute by 2047;
 - A24 from M25 Junction 9 to West Grinstead journey times would increase by up to seven minutes northbound and up to six minutes southbound between 2029 and 2047 in the future baseline. With the Project there would be a change of no more than one additional minute by 2047
- 10.225 SCC are concerned by these journey time increases on its network and require that the Applicant proposes mitigation accordingly.

Strategic Junction Assessment Impacts:

- 10.226 In the 2047 strategic junction modelling, the assessment indicates 18 locations would experience a medium or high impact. Nine of these locations have been attributed to model noise. Of the remaining locations, two are within SCCs network and of interest.
 - Woodhatch Road/Dovers Green Road/Cockshot Hill, which would operate close to or at capacity in certain time periods in the future baseline but where the proportion of airport related traffic is less than 1% of the total traffic volume, the Project would add around ten vehicles and the junction would continue to operate at modelled capacity.
 - Woodroyd Avenue/Brighton Road, Horley, which would operate within capacity in the future baseline but is affected by the highway works that form part of the

Project. The junction would continue to operate within capacity in the 'with-Project' scenarios.

VISSIM Modelling Impacts

- 10.227 The VISSIM outputs for the 2047 future baseline indicate a network that would have very limited capacity to accommodate additional demand by this time, leading to poorer overall performance and significant congestion at key locations, both within the Airport network and on the strategic and local network serving the Airport. SCC has concerns that no mitigation of impacts is proposed, when, in the 2047 future baseline compared with the 2047 with Project scenario, numerous locations are highlighted to have capacity issues.
- 10.228 SCC also has other queries and concerns with regard to the VISSIM model and has requested extra information is provided to enable SCC to determine the impacts on its network, and this is yet to be received.
 - In Transport Assessment Diagrams 13.5.4 and 13.5.16, which show the speed plots for the 2032 and 2047 forecast years respectively, average speed deteriorates for the A23 London Road northbound at Longbridge Roundabout in the project scenario compared to the future baseline but no further mitigation is mentioned to alleviate the impact.
- 10.229 2047 future baseline vs future baseline with project
 - On page 49 of TA Annex E Highway Junction Review (APP-263), the assessment shows the Woodhatch Road/Dovers Green Road / Cockshot Hill junction operating over capacity in both scenarios with an increase in vehicles of around 100 in the PM peak. As the junction is operating very close to capacity (V/C ratios of 96% to 99%), even small change in vehicles is likely to increase delays significantly, yet no mitigation measures have been proposed at this location.
 - On page 50, the Woodroyd Avenue / Brighton Road junction is indicated as operating in the future baseline with maximum V/C of 91% in the PM peak. As a non-signalised junction, a V/C value of over 85% is considered as the junction operating at capacity. With the Project, the junction would continue to operate at maximum V/C of 93%. However, no mitigation measures to improve performance of this junction are included as part of the proposal for the Longbridge Roundabout.
 - On page 51, at the Longbridge Roundabout, the AM2 peak model predicts an increase in V/C from 84.6% in the future baseline to 90.8% with the Project. Similarly, the PM peak model predicts an increase in V/C with the Project from 90.5% to 92.4%. This analysis shows that the proposed highway improvement at this location is not able to mitigate the impact of the proposed development.
- 10.230 Therefore, SCC requests that GAL propose mitigation accordingly.
- 10.231 TA para 13.5.18 states that the 2047 model assumes the pedestrian and cycle crossings at Longbridge Roundabout are called every cycle. However, the frequency of pedestrian and cycle crossings in the base scenario together with the cycle time considered in all the forecast & base scenarios is not clear, nor whether the increase in pedestrian and cycle

numbers has been considered in all the forecast scenarios. Therefore, SCC seeks clarification on these matters.

- 10.232 The impacts on the LRN have been assessed to be minor in the modelling, and at present no mitigation is proposed. SCC has concerns over the modelling tools and assumptions/inputs within these assessments that have led to the impacts. SCC has requested sensitivity tests which would assess the impacts in the circumstance of the SACs not being met. SCC wish to understand what the impact would be if the mode share targets are not reached, and greater levels of car usage occurring.
- 10.233 SCC also has concerns as several locations are operating close to capacity. Where this is the case, the highway improvements should focus on accommodating improvements for buses & coaches (e.g. priority measures), active travel movements, taxis and service vehicles rather than private motorists. As such, SCC would like to work with the Applicant to achieve this, because, the proposed development improvements are focussed within the red line boundary, while the only tools available to the Applicant to achieve mode share targets are parking/drop off charges and there will be a limit to what is acceptable.

Public Transport Impacts

- 10.234 As outlined already, SCC is mainly concerned with the reality of delivering interventions to meet the targets and the heavy reliance on proposed additional public transport and specifically rail measures to meet these commitments.
- 10.235 By 2047, the daily passengers using the airport is predicted to be 13,400 with the Project. In terms of estimated crowding on the rail services, the Seated Load Factors on the North Downs line during the network peak period for 2047 with Project scenario are 1.10 (eastbound AM peak) and 0.94 (westbound PM peak). Crowding is expected between Reigate and Redhill however the highest Seated Load Factor of 1.10 is unchanged from the future baseline scenario, which suggests the section between Reigate and Redhill is not worsened with the Project in 2047. Standing capacity is available along the route during network peak times.
- 10.236 On the Brighton Mail Line, in the 2047 baseline standing capacity occupied does not exceed 50% occupied in the AM peak or 40% in the PM peak. The Project will add a substantial increase in patronage overall, however TA reports 'the impact of this on occupied standing capacity would be small when the additional patronage is distributed across the day and the available train services, and would not add significant crowding on these services' (Paragraph 9.6.48, Page 91). SCC is concerned specifically during the AM peak with the line accommodating London commuters and Gatwick arrival movements what is the impact of bags and rolling stock changes e.g. will there be a reduction in seats to accommodate cases.
- 10.237 Despite the increases in rail patronage expected as a consequence of the Project, the changes to Seated Load Factors caused by the Project are relatively small in 2047, being no more than an increase of 0.04. However, SCC are concerned that crowding levels could be much worse if third party improvements to services are not delivered.
- 10.238 For the 2047 assessment scenario, the Seated Load Factor exceeds 1.0 along the entire route north of Gatwick Airport into London during the AM peak, with a maximum Seated Load Factor of 1.6 expected on services to London Bridge and 1.4 to London Victoria. These

London-bound services would accommodate Gatwick arrivals. In the southbound direction in the PM peak, the SLF exceeds 1.0 along the entire route between London Victoria and London Bridge to Gatwick, with the highest Seated Load Factor being around 1.6. SCC is concerned that this level of crowding on services would impact on passenger decisions when choosing mode of travel.

Requirements and Obligations

Summary of impacts – Traffic and Transport					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context
TT1	 Construction traffic The Applicant states construction vehicles will travel via the M23 Spur only to get to/from the construction sites. What is unclear is what the impacts to the local roads / communities could be if this is not ensured; for example severance, pedestrian delay/amenity, driver delay, fear and intimidation, safety, noise and air quality. The Applicant estimates 40 vehicles will get to/from the construction sites per hour in the peak construction period. 	C	Negative (potential)	 SCC require the Applicant's construction to operate as per the proposed routing via the M23 spur with minimal use of SCC's network. It is noted access to the Longbridge Construction Compound will require use of the Longbridge Roundabout and A217 between Longbridge and Tesco Roundabouts. Construction Traffic Management Plan and Construction Workers Travel Plan to be secured by obligation. There are deficiencies with the Code of Construction practice and an outline Communications and Engagement Management Plan should be submitted to the examination. 	Airports NPS 2018 NPS for National Networks

Summary of impacts – Traffic and Transport					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context
TT2	 Impact of construction on traffic Highway construction modelling shows medium to high impacts in certain locations and SCC are concerned that no mitigation has been proposed. In particular, construction activity has resulted in a high impact on Longbridge roundabout for 6-months in 2029. The impacts will be increased traffic at the roundabout and on other routes with traffic re- routing to avoid Longbridge roundabout. Similarly, construction of the Balcombe Road overbridge will require closure of Balcombe Road with associated impact on the local Road Network. 	C	Negative	SCC wish to see further mitigation during the highway construction, especially affecting the Longbridge Roundabout and Balcombe Road Bridge installation.	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility
TT3	Impact of construction on footways and Rights of Way SCC is concerned about the length and impacts of the closures and associated diversions proposed during	C	Negative	SCC requests that impacts are minimised through phasing etc, with further details provided and set out in the Construction Management Plan.	Airports NPS 2018 NPS for National Networks Surrey LTP4

Summary of impacts – Traffic and Transport					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context
	 construction for footways and Rights of Way. Concerns about Rights of Way diversions are set out in Chapter 17 on Agricultural Land Use and Recreation, with particular concerns about: -Horley FP360 Sussex Border Path along the alignment of Horley FP362a and Horley Footpath 355a Horley FP367 -NCR21 In addition there are concerns about: Replacement of the River Mole Bridge northeast of Longbridge Roundabout pedestrians will need to use the northern footway and then travel anticlockwise around the whole roundabout Replacement of the Balcombe Road overbridge and associated impact on pedestrians using the Balcombe Road. 				Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility

Summary of impacts – Traffic and Transport					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context
	 The impact will be longer journeys for pedestrians and cyclists which are less convenient and likely to result in alternative modes being sought. The construction period diversions proposed will increase severance and safety issues could act as a deterrent to cycling/walking. 				
TT4	Construction accesses SCC is concerned that separate entrances to the South Terminal compound are proposed for HGVs (from the roundabout) and private vehicles (from Balcombe Road). Access was anticipated from the roundabout only based on previous engagement. SCC has concerns about the impact on Balcombe Road and the LRN. A smaller construction compound will be provided to the north east of Longbridge Roundabout, which will be served by a new single main	C	Negative	SCC require that access to the South Terminal construction compound should be from the South Terminal Roundabout only and not from Balcombe Road. SCC requests that a plan and further information is also provided for the Longbridge construction compound access. In particular, the existing access track is considered inappropriate in terms of width, geometry, its	Surrey Healthy Streets

Summary o	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
	entry point located on the A217 just before the roundabout. The location/priority control of this entry point in line with other methods of control on the roundabout is unclear in the OCTMP/Buildability Report submitted as part of the DCO. Subsequent information provided in the Statement of Common Ground has provided some clarification via text, but SCC still has concerns without further information			lack of visibility at its crossing of the shared cycle/footway and proximity with the pedestrian signals at the approach to the roundabout. We would expect to see this access being left in and left out only.				
TT5	Lack of incorporation of Permit Scheme and Lane Rental Scheme Coordination of activities through the incorporation of the schemes is intended to be of benefit to the Applicant as a means of achieving positive and constructive collaborative working.	C	Negative	SCC requires that Lane Rental Scheme and Permit Scheme are incorporated into DCO. Within Surrey the Southampton to London Pipeline Project DCO, as made 7 th October 2020, includes the Permit Scheme. It has proved invaluable during delivery for both parties.	SCC Lane Rental Scheme SCC Permit Scheme			

Summary of	Summary of impacts – Traffic and Transport						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context		
TT6	 Active Travel Infrastructure The proposed development is predicated on improved mode share for sustainable modes, yet the active travel infrastructure proposed is considered indirect and insufficient. In particular: The route via Longbridge Roundabout is being promoted as the preferred active travel route. However, SCC is concerned that: it is not the most direct route; and it is inconsistent being a mixture of fully segregated and shared use. In particular, the shared use pinch points are at the 2 River Mole bridges (Brighton Road and London Road), which are being widened anyway. As such, SCC queries why these bridges cannot be widened sufficient to enable segregation -the most direct route between Horley and North terminal via 	0	Negative	The proposed active travel infrastructure should be improved to: -provide a fully segregated route via Longbridge Roundabout -upgrade the most direct route between Horley and Gatwick Airport for pedestrians and cyclists (via the new signalised crossing of the A23 and Riverside Garden Park to North terminal and from the southern end of The Crescent through the landscaped Car park B to the South Terminal; -provide a new crossing of the Brighton Mainline suitable for pedestrians and cyclists to facilitate access east of the railway line; and -provide ROW improvements to surrounding residential	NPPF (2023) Airports NPS 2018 NPS for National Networks Surrey LTP4 Surrey Health Streets Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility MVDC Core Strategy: CS18 - Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport, Policy S2: Combatting the Climate Emergency		

Summary o	ummary of impacts – Traffic and Transport						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context		
	 the new signalised crossing of the A23 London Road and Riverside Garden Park should be improved in entirety for pedestrians and cyclists. the most direct route between Horley and North terminal is from the Crescent along the west side of Brighton Mainline. FP362a and FP355 are currently narrow and enclosed. At the Applicant is landscaping Car Park B anyway, SCC queries why an improved route for pedestrians and cyclists cannot be provided through here from the southern end of The Crescent. a new crossing of the Brighton Mainline for pedestrians and cyclists to facilitate access east of the railway line is not being provided The scheme has not fully explored further improvements to the Rights of way network 			areas, including Charlwood, Hookwood and Povey Cross.			

Summary of	Summary of impacts – Traffic and Transport						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context		
	around the airport from surrounding residential areas are such as Charlwood, Hookwood and Povey Cross (refer to Chapter 17) The impact will be that cyclists will have to use the more indirect route via Longbridge roundabout to get to North Terminal. Pedestrians will either have to use existing unimproved routes through Riverside Garden Park to get to North Terminal or the narrow and enclosed FP362a/FP355. This would result in longer journeys for cyclists, and safety issues for pedestrians and cyclists, which could lead to alternative modes being sought and the Applicant's SAC mode share targets being missed.						
TT7	Bus and coach services The operation of the new runway will result in increased demand on bus and coach services using	0	Neutral	SCC notes that the SAC proposes financial support to	Airports NPS (2018) Surrey LTP4		

Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context
	 these modes to access the airport. The Applicant proposes no new bus routes in Surrey. There could be wide impacts and implications should third party operators fail to accommodate the growth in demand. The impacts would be crowding on existing services, reduction in passenger amenity and journey quality which would lead to modal shift to other transport options. This would threaten the modal split required to meet the SACs. 			deliver the following for a minimum of 5 years:-Route 20 – enhancement to 6 buses per hour (bph) daytime, 4 bph early/late-Route 22 – enhancement to 2 bph in peaks, 1 bph other times-Route 100 – enhancement to 6bph daytime, 4 bph early/lateSCC seek further clarification of the measures that will be put in place to ensure that this happens, why only five years are considered acceptable, and why the 420 service is not 	Bus Service Improvement Plan (BSIP) Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility MVDC Core Strategy: CS18 - Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport,

Summary of	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
				The Applicant should consider increasing services further for those with longer journey times, such as Route 22, which takes in excess of an hour from end to end, and which may act as a deterrent to usage when there are quicker means such as the private car, or taxi.				
TT8	Rail services The operation of the new runway will result in increased demand on rail services: -Brighton Main Line: By 2047, the Seated Load Factor exceeds 1.0 along the ensure route north of Gatwick into London during the AM peak (meaning seats all occupied, standing capacity only remains). A combined impact of London bound commuters and Gatwick arrivals using these services. -North Downs Line. The main impacts in terms of service	0	Negative	SCC consider that a contribution is required to the proposed Network Rail schemes assumed in the baseline should be provided to ensure that they are delivered	Surrey LTP4 A new Rail Strategy for Surrey, March 2021 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS17: Travel Options and Accessibility MVDC Local Plan (20002): MOV13 – Railway network and interchange facilities. MVDC Core Strategy: CS18 -			

Summary	Summary of impacts – Traffic and Transport						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context		
	 crowding are identified in 2032 between Redhill and Reigate, with worsening conditions by 2047. The implications of the increased levels of crowding on existing services would be poor quality journeys and reduction in passenger amenity which could result in a shift in mode towards private car or other transport options. This threatens the mode share level of rail usage, needed to meet the SACs for the Project. 				Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport S2 – Combatting the Climate Emergency		
TT9	Highway impact – modellingSCC is concerned that thehighway impact is inaccurate/notfully understood, resulting ininfrastructure that is notappropriate or extensive enough.In particular, the VISSIM model islimited in extent and should beextended to cover:• A23/Massetts Road• A23/Victoria Road• A217/Tesco roundabout	0	Negative	Extension of VISSIM model to cover junctions and understand impact of Surrey's LRN	Airport NPS 2018 Paragraph 5.14 Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility		

Summary of	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
	 A217/Hookwood Roundabout The Covid sensitivity testing has resulted in some new impacts on the Local Road Network – e.g. A217/Meath Green Lane in Horley and Effingham Road/Copthorne Bank in Copthorne. SCC is concerned that the VISSIM model does not cover these areas and that no mitigation is proposed. 				MVDC Local Plan (2000): Policy MOV2 – Movement implications of development MVDC Core Strategy: CS18 - Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport			
TT10	Highway impact – pedestrians & cyclists The modelling shows highway links in all assessed years with increased traffic/speeds causing severance impacts for pedestrians and cyclists. Locations within Surrey's LRN with >30% increase in flows in either peak period are: 2029	0	Negative	Wider active travel improvements to mitigate the highway impact on pedestrians and cyclists.	Airport NPS 2018 Paragraph 5.14 Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility			

Summary o	ummary of impacts – Traffic and Transport						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context		
	 Reigate Road – Povey Cross (North of the Airport) Lee Street, Pankhurst Road – Vicarage Lane 2032 A217 London Road, Longbridge Roundabout A217 London Road/ A217 Reigate Road 2047 A217 London Road, Longbridge Roundabout A217 London Road, Longbridge Roundabout A217 London Road, Longbridge Roundabout A217 London Road, Longbridge Roundabout A217 London Road/ A217 Reigate Road A23 London Way The severance and safety issues caused by the increased traffic along highway links could deter people from choosing to walk and cycle and threaten the mode share targets if unmitigated. 				MVDC Local Plan (2000): Policy MOV2 – Movement implications of development MVDC Core Strategy: CS18 - Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport		

Summary of	Summary of impacts – Traffic and Transport						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context		
TT11	 Highway impact – Longbridge Roundabout Increased traffic will cause busy conditions at Longbridge Roundabout in both the AM and PM peak. Spare capacity is limited at the junction. The model analysis shows that the proposed highway improvement at this location is not able to mitigate the impact of the proposed development. As a result of the busier conditions and limited capacity, there will be longer journey times and congestion experienced by highway users at this location. 	0	Negative	SCC request further mitigation is considered. This includes: -Provision and agreement of the lane widths and lane numbers on entry and exit to/around the Longbridge Roundabout. -The 2-to-1 lane merge on the A23 southbound roundabout exit may need lengthening -The length of the splitter island on the A217 arm at the Longbridge Roundabout appears excessively long and may affect approach lane widths	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility MVDC Local Plan (2000): Policy MOV2 – Movement implications of development MVDC Core Strategy: CS18 - Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport		
TT12	Highway impact – A23/North Terminal signalised junction SCC is concerned about queuing back from the new A23/ North Terminal signalised junction affecting the Longbridge	0	Negative	SCC require queue length information to check whether queueing back from the new A23/ North Terminal signalised junction affects the	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport		

Summary	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
	Roundabout to U-turn to return to the M23. SCC has requested queuing information accordingly. The provision of the left turn from the North Terminal onto the A23 London Road makes travel by car easier for staff, which could work against the mode share targets.			Longbridge Roundabout, with mitigation proposed if it does. SCC requires provision of the left turn to be reviewed or for the Applicant to adopt a Green Controlled Growth approach as per Luton Airport.	Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility			
TT13	 Highway impact – Woodhatch Road/Dovers Green Road/Cockshot Hill junction Modelling shows capacity issues at Woodhatch Road/Dovers Green Road/Cockshot Hill junction in 2047. The junction is operating very close to capacity (V/C ratios of 96% to 99%) with an increase in vehicles of around 100 in the PM peak. The impact is that a small change in vehicles is likely to increase 	0	Negative	Mitigation measures need to be considered at this location.	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility			

Summary	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
	delays / congestion significantly at this junction.							
TT14	 Highway impact – Woodroyd Avenue/Brighton Road junction in Horley Modelling shows capacity issues at Woodroyd Avenue/Brighton Road junction in Horley. The maximum V/C is modelled at 91% (in the 2047 future baseline) and 93% (with the Project in 2047). As this is a non-signalised junction, a V/C value of over 85% is considered as operating at capacity. The impact is that a small change in vehicles is likely to increase delays / congestion significantly at this junction. 	0	Negative	Mitigation measures to improve performance of this junction should be included.	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility			
TT15	Highway impact – journey times There are journey time impacts experienced as a result of growth at the airport and additional	0	Negative	SCC require the journey time impacts to be mitigated, especially in terms of buses	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport			

Summary of	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
	 volumes of traffic on the network. With project journey times will increase: between the Longbridge Roundabout and the A23 (south of M25 near Merstham) by up to two minutes northbound on the A217 from M23 Spur via A217 to M25 J8 by up to five minutes. A22 from M25 J6 to Maresfield A2011/A264 from M23 J11 to East Grinstead via Crawley The impact will be longer journeys impacting highway users, yet no mitigation is proposed, including bus priority. 				Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility MVDC Local Plan (2000): Policy MOV2 – Movement implications of development MVDC Future Local Plan: INF1 – Transport			
TT16	 Passenger and employee mode share The modelling and infrastructure is based on sustainable mode share targets within the SACs. 	0	Negative	That a Green Controlled Growth Framework is adopted as per the expansion of Luton Airport.	Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport			

Summary of	impacts – Traffic and Transport				
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context
	There is a risk that the sustainable mode share targets are not met, resulting in greater traffic impact than modelled/anticipated. Furthermore, the plan for addressing such a situation is unclear.				Policy CS17: Travel Options and Accessibility MVDC Local Plan (2000): Policy MOV2 – Movement implications of development MVDC Core Strategy: CS18 - Travel Options and Accessibility MVDC Future Local Plan: INF1 – Transport
TT17	Parking Although the proposals include an additional 1,100 spaces, SCC is concerned that the proposed expansion will result in more offsite car parking on SCC streets.	C + O	Negative	The parking expansion should be phased. In addition, use of and provision of onsite parking for passengers and staff, as well as associated charges, should be regularly reviewed to ensure it is appropriate (i.e. not causing an increase in offsite car parking on SCC streets, and not undermining the SAC mode share targets). In this way, incentives for staff	Airports NPS (2018) Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility

Summary	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
				to travel sustainably with disincentives for car travel should be incorporated.	MVDC Local Plan (2000): Policy MOV2 – Movement implications of development Policy RUD28 – Off-airport parking MVDC Future Local Plan: INF2 – Parking INF6 – Gatwick Airport			
TT18	 Broader Public and Sustainable Transport incentives to assist in achieving modal share targets A lack of provisions and interventions that would remove obstacles from use of sustainable travel modes and increase uptake. While there is an obvious need for additional provisions, improvement of those already in existence can be improved and provide a resource efficient solution, at least in part. 	C/O	Negative	 As part of its offer and in addition any new services, the Applicant must take actions which will encourage the use of public transport and other sustainable modes. This should include: Worthwhile bus, rail and coach ticketing and discount schemes for residents and passengers to make such travel affordable. Improvement of bus stops and/or stations on the North Downs Line and which provide key connections to Gatwick such as Dorking Deepdene 	Airports NPS (2018) Surrey LTP4 Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS9: Gatwick Airport Policy CS10: Sustainable Development Policy CS17: Travel Options and Accessibility MVDC Local Plan (2000): Policy MOV2 – Movement implications of development MVDC Core Strategy: CS18 - Travel Options and Accessibility			

Summary o	Summary of impacts – Traffic and Transport							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/ Neutral/ Positive	Required mitigation and how to secure it? (change/ requirement/ obligation)	Policy context			
				which needs Access for All interventions, as well as live bus timetable data and lit shelters.	MVDC Future Local Plan: INF1 – Transport			
TT19	S106 elementsA number of items currently contained within the draft S106 are yet to be agreed. These include: -Sustainable transport Fund -Transport Forum Steering Group Terms of Reference -Transport Mitigation Fund -Investment in bus and coach services -Level of parking enforcement support	C/O	Negative	The Applicant to clarify and revise current S106 provisions	Airports NPS (2018) Surrey LTP4			

11. Air Quality (District and Borough lead)

Current Context

- 11.1 The proposed project has the potential to impact on air quality as a result of both direct emissions from the airport and indirectly from motor vehicles accessing the airport.
- 11.2 The most impacted area in Surrey is Reigate and Banstead (RBBC). The borough currently has nine Air Quality Management Areas (AQMAs) which are predominantly associated with the urban areas of Redhill, Reigate, Merstham and Horley as well as parts of the Local Road network and Strategic Road network, with the Horley AQMA which borders the airport boundary the most impacted by the proposed development.
- 11.3 Under the existing S106 between the airport and the local authorities, the Applicant provide RBBC with an annual payment of £68,000 for revenue costs to support their activities relating to air quality in the vicinity of the airport. The agreement also includes provision for the reasonable capital replacement costs of the equipment required to maintain the programme of air quality monitoring on the council's three permanent sites.

Policy context

National

Airports National Policy Statement (ANPS) (2018)

- 11.4 The Airports National Policy Statement (ANPS) sets out planning policy in relation to applications for any airport nationally significant infrastructure project in the South East of England. As stated in paragraph 1.18 of NPS-AP; "Under section 104 of the Planning Act 2008, the Secretary of State must decide any application in accordance with any relevant NPS...". Paragraph 1.41 of NPS-AP explains that although it caters primarily for the Heathrow Northwest Runway scheme, that nevertheless, the contents of NPS-AP will be both important and relevant considerations for the determination of other airport applications.
- 11.5 Paragraph 5.32 of NPS-AP states that the Applicant's environmental statement must demonstrate that the construction and operation of the airport development will not affect the UK's ability to comply with legal obligations on air quality. Specifically, the environmental statement should assess:
 - Existing air quality levels;
 - Forecasts of air quality levels at the time of opening for, (a) the 'future baseline' (not built), and (b) taking account of the impact of the scheme, including when at full capacity; and
 - 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.

- Paragraph 5.34 of NPS-AP advises applicants to refer to Defra data for national air quality projections and to use the latest available projections.
- 11.6 Paragraph 5.43 highlights where air quality considerations are likely to be particularly relevant for decision making, with reference to Air Quality Management Areas and "significant air quality impact in relation to Environmental Impact Assessment and / or to a deterioration in air quality in a zone or agglomeration".

National Policy Statement for National Networks (December 2014)

- 11.7 The National Policy Statement for National Networks (NPS-NN) sets out the Government's policies to deliver development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. Paragraph 1.2 states that "The Secretary of State will use this NPS as the primary basis for making decisions on development consent applications for national networks nationally significant infrastructure projects in England."
- 11.8 The NPS-NN states in paragraph 3.2 "The Government recognises that for development of the national road and rail networks to be sustainable these should be designed to minimise social and environmental impacts and improve quality of life." Paragraph 3.3 sets out the that applicants are expected to avoid and mitigate environmental and social impacts, and evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes.
- 11.9 Paragraph 5.6 states "Where the impacts of the project (both on and off-scheme) are likely to have significant air quality effects in relation to meeting EIA requirements and / or affect the UKs ability to comply with the Air Quality Directive, the applicant should undertake an assessment of the impacts of the proposed project as part of the environmental statement."
- 11.10 Paragraph 5.7 sets out what the environmental statement should describe:
 - *"existing air quality levels;*
 - forecasts of air quality at the time of opening, assuming that the scheme is not built (the future baseline) and taking account of the impact of the scheme; and
 - any significant air quality effects, their mitigation and any residual effects, distinguishing between the construction and operation stages and taking account of the impact of road traffic generated by the project."
- 11.11 Paragraph 5.8 of NPS-NN says that the applicant's assessment should be consistent with Defra data for national air quality projections but may include more detailed modelling to demonstrate local impacts. Paragraph 5.9 goes onto say that "a judgement on the risk as to whether the project would affect the UK's ability to comply with the Air Quality Directive" must be provided by the applicant.
- 11.12 Paragraph 5.12 states that "The Secretary of State 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."

11.13 Paragraph 5.13 states that "The Secretary of State should refuse consent where, after taking into account mitigation, the air quality impacts of the scheme will: result in a zone/ agglomeration which is currently reported as being compliant with the Air Quality Directive becoming non-compliant; or affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the European Commission at the time of the decision."

National Planning Policy Framework (NPPF) (December 2023)

11.14 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."

11.15 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."

11.16 Paragraph 109 of the NPPF states:

"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".

11.17 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

Mole Valley District Council

Adopted Mole Valley Local Plan

11.18 The Council's current Local not include any policies directly applicable to air quality. It does, however, have regard to pollution and environmental impacts more widely. There are no Air Quality Management Area's within Mole Valley.

Future Mole Valley Local Plan

- 11.19 With the increasing emphasis on the importance and understanding around air quality the future Local Plan (2018-2033) includes clear policy provisions for the benefit of air quality including within policy EN12: Pollution Control. The policy states that proposals should avoid increasing exposure to poor air quality, including odour, particularly where vulnerable people are located (such as health facilities, care homes or schools). It also requires that proposals contribute towards the achievement of national air quality objectives by demonstrating that significant new emission sources will be suitably mitigated to be as low as reasonably practicable.
- 11.20 Policy EN12, once adopted, will be used to resist schemes that would have significant adverse impacts on air quality or expose the public to existing sources of air pollution, either as a result of the on-site activities or traffic movements, unless appropriately mitigated.

Reigate and Banstead Borough Council

Local Plan

- 11.21 Policy CS10 (Sustainable development) in the Council's Local Plan Core Strategy 2014 states that development will be designed to minimise air pollution.
- 11.22 Policy DES9 (Pollution and contaminated land) in the Council's Development Management Plan 2019 (DMP) states that development will only be permitted where it can be demonstrated that (on its own or cumulatively) it will not result in a significant adverse or unacceptable impact on the natural or built environment (including sensitive habitats); amenity; or health and safety due to air pollution. Where there would be potential adverse effects from pollution and adequate mitigation cannot be provided, development will not normally be permitted. This includes pollution from construction and pollution predicted to arise during the life of the development. Particular attention should be paid to development within Air Quality Management Areas. The policy goes onto say that new development will not normally be permitted where existing air pollution is unacceptable and there is no reasonable prospect that these can be mitigated against to satisfactory levels.
- 11.23 Within Air Quality Management Areas, Policy DES9 requires development to be designed to minimise the occupants' or users' exposure to air pollution, both internally and externally.

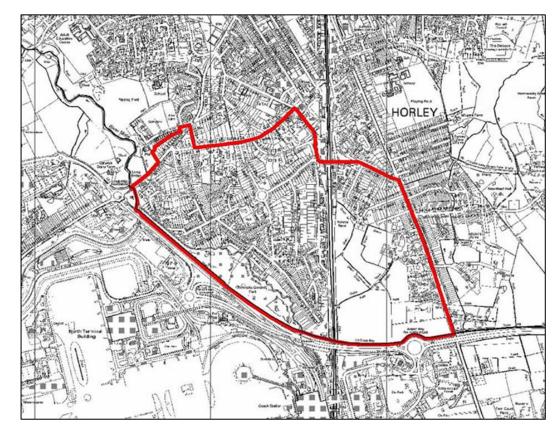


Figure 11.1 Air Quality Management Area no.3 2003 for the pollutant Nitrogen Dioxide. SW Area of Horley

11.24 The council's draft air quality action plan and strategy (February 2024) in relation to the Horley AQMA deals primarily with non-airport sources of pollution, with the expectation that the airport will develop its own action plan for airport related sources of pollution as in previous years.

Tandridge District Council

Local Plan

11.25 Tandridge District Council (TDC) details its policies in the Part 2: Detailed Policies 2014-2029 of the Tandridge Local Plan. Paragraph 22.16 states

"As part of the Local Air Quality Management (LAQM) duties, specified by the Environment Act 1995, the Council continually monitor the quality of the air in the District, producing annual reports and assessments. Generally, the air quality in Tandridge is good and, to date, no Air Quality Management Areas (AQMA) have been declared"

11.26 However, the current LAQM Technical Guidance TG22^{6[1]} highlights the emerging issue of Ultrafine Particulates (UFPs). It notes that there is growing evidence of the health impacts associated with UFPs close to airports. It also states that measurements of UFPs near to airports suggest that aircraft are an important source of UFP and that emissions from

⁶ [1] LAQM-TG22 August 22

aircraft can result in elevated concentrations of this pollutant "tens of kilometres" from airports. TG22 also notes that there is evidence of increased UFP concentrations from landing aircraft.

- 11.27 TDC take into consideration that more stringent air quality targets have been introduced in 2023 for PM_{2.5} and are concerned that currently no assessment against the new target for 2040 has yet been undertaken even though one assessment year is 2038. The new PM_{2.5} target are less than half the current PM_{2.5} air quality standard and hence TDC would be concerned if any new development resulted in increases in levels of this pollutant.
- 11.28 The latest Air Quality Status report (ASR) notes that TDC is a predominantly rural area with 90% of the district's area within the Metropolitan Green belt. The two main population areas are Caterham in the north and the Oxted cluster including Hurst Green and Smallfield south of the M25. Although it has a largely rural character, the ASR notes that there are a several main roads in the district that are significant sources of air pollution, notably the M23, M25, A22 and the A25. These roads pass near to, or through some of the major population areas, particularly the A25 passing through Godstone and the Oxted cluster.

Construction Phase Impacts

Positive

11.29 The JSC's have identified no positive impacts during this phase.

Neutral

11.30 The JSC's have identified no neutral impacts during this phase.

Negative

11.31 In the construction phase negative air quality effects are expected to be associated with construction dust and particulate matter generation, traffic and non-road mobile machinery (NRMM). The Applicant considers that construction traffic air quality effects at all locations are not significant.

Lack of a Dust Management Plan

- 11.32 A major concern for the JSCs is the lack of a Dust Management Plan. This is a particular issue for RBBC in relation to residents on the Horley Gardens Estate and especially along Longbridge Road due to the potential impact of dust from the planned car park Y materials reprocessing centre which will store crushed materials and undertake concrete crushing activities during the initial years of the project, and the subsequent surface access works on and around the Longbridge Roundabout.
- 11.33 The construction dust air quality assessment (para 13.10.18 Chapter 13) states: 'Following the implementation of appropriate embedded mitigation as set out in ES Appendix 13.8.1: Construction Period Mitigation..., but without any additional actions being required, the effects of construction-related activities on dust soiling and human health would be negligible and the effects would therefore not be significant.

- 11.34 Appendix 13.8.1 para 2.2 states: 'Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the local authority. This should have due regard to all measures provided here and should be site specific, setting out how the works would be carried out to mitigate dust impacts and provide details of monitoring locations and consideration of whether monitoring locations need to change based on phasing and works being carried out.' Paragraph 2.2.7 of the CoCP sets out that the Construction Dust Management Plan will be prepared in accordance with the CoCP.
- 11.35 At present the JSCs have not had sight of any Dust Management Plan even in a draft form. Given this document will form part of the code of construction practice - a key document in the DCO process – such a document needs to be produced for approval by the local authorities during the examination process, and needs to include a map showing the forecast areas of High, medium, and low dust impact (without mitigation) and what activity is driving that impact.
- 11.36 The plan will also need to include (but not be restricted to) proposed dust mitigation measures, the monitoring locations proposed, the monitoring techniques planned, dust thresholds, monitoring durations and frequencies (where appropriate), the process of reviewing monitoring results including how the plan will be adjusted in response to elevated dust emissions and the data sharing and reporting process with local authorities.

Pollution from Non Road Mobile Machinery (NRMM) and Road going Construction Vehicles.

- 11.37 The proposed project has a construction period extending over 14 years and by its very nature is a relatively large construction project in terms of scale. As such the project needs to be using the lowest emission equipment available for any given type of plant being used over the construction period.
- 11.38 Therefore there needs to be a commitment from the developer to only use (not just encourage) on road vehicles that meet the London Low Emission Zone standards and for NRMM equipment to meet London's 'Low Emission Zone' for Non-Road Mobile Machinery standards with equipment as a minimum meeting Stage IV requirements from 2024, and stage V from 2030.
- 11.39 This is in line with RBBC's draft air quality action plan which covers the Horley AQMA which states: 'Road going construction vehicles to meet the London Low Emission Zone standards, and for projects over 6 months NRMM equipment must as a minimum meet Stage IV requirements from 2024, and stage V from 2030.'
- 11.40 The JSCs notes that in the air quality assessment prepared by the Applicant chapter 13 para 13.6.4) it has assumed as a minimum that the construction equipment meets Stage V from 2024. Therefore if the Applicant wishes to adopt the more stringent standard it has used in its air quality assessment this would be welcome.
- 11.41 The JSCs noted the comment from the Applicant around availability of equipment and spoke to one of the NRMM leads in London on this matter. The council was told that there is a good availability of equipment that meets the relevant standards, as the major infrastructure projects have adopted the standards including outside of London e.g. HS2 and so there is more supply from the rental companies.

11.42 Where the Applicant wishes to use a specialist piece of equipment that does not meet the standard then there is no reason why an exemption cannot be applied for as is the case in London.

Code of Construction Practice - data availability to be made available to local authorities.

- 11.43 The JSCs notes that in the Code of Construction Practice (APP-082) (CoCP) (Paragraph 2.1.2) that contractors will be required to provide the Applicant with construction method statements to demonstrate compliance with the CoCP.
- 11.44 Where the construction activities impact directly on local residents then those method statements also need to be actively supplied to that local authority for information and comment prior to their adoption, in addition to being available to all local authorities on request.
- 11.45 The Code of construction practice ((APP-082) Paragraph 4.12.1) also states that a Communications and Engagement Management Plan will be prepared and that this will be an internal GAL document. This document must be shared with the local authorities given this type of plan is also identified as a general control measure for dust (para 5.8.2), reinforcing this cannot just be a GAL internal document.
- 11.46 The Code of construction practice ((APP-082) Paragraph 4.12.7) states a complaints procedure will be established. The text also needs to include the statement that when complaints are received that the relevant local authority will be notified of the complaint along with the measures being taken by the Applicant (GAL) or their contractors to rectify the problem.

Complaint Management

11.47 Paragraph 4.12.1 and 4.12.7 of the Environmental Statement (Appendix 5.3.2: Code of Construction Practice (APP-082)) states a Communications and Engagement Management Plan and a complaints procedure will be implemented. The JSCs welcome the production of a contractor led approach to recording and managing complaints but there is insufficient information within the COCP to understand how these procedures will work and how there will be effective communication between residents and the contractors responsible for carrying out the work.

Road Traffic

11.48 Impacts from road vehicles have been assessed using dispersion modelling. This has been carried out using "peak traffic flows" at the start of each construction period assessed (2024 and 2029). It is assumed that peak traffic flows are defined by the number of construction related vehicles generated at the construction sites during these periods, the JSCs are concerned that this may not be the same period as the peak volumes of construction traffic passing through their area. There is also a concern that the combined effects of construction and operational traffic has not been assessed. Paragraph 13.5.24 of the ES notes that there are two separate scenarios for construction and operational traffic. Paragraph 13.5.25 of the ES notes that the 2029 operational assessment does not include construction traffic. It is therefore unclear how the combined impacts have been assessed. Similarly, the treatment of construction traffic in the 2032 interim assessment requires clarification, this appears to be solely based on operational traffic and therefore may not

have included the additional impact from construction works that would still be taking place at the same time.

- 11.49 The assessment of construction traffic was undertaken using detailed air quality modelling techniques within ADMS-Airport. The assessment of NRMM was undertaken using detailed air quality modelling techniques within ADMS-Airport. This was then used to inform on control measures for incorporation into the CoCP.
- 11.50 Although Mole valley is generally some distance from the majority of the construction work some phases such as work on the Longbridge round about and the A23 will result in construction work. There is also a risk of wider dust impacts from all construction and demolition work including but not limited to earthworks, vehicle movements and site compound and haulage holding and loading areas. The impact of these construction impacts have not been suitably assessed and there are no proposals to control any of these impacts as a dust management plan has not been provided.
- 11.51 There are around 50 residential receptors located in Mole Valley district within 25m of Charlwood and Povey cross road which will be exposed to construction traffic if it is routed along that way and there are 8 properties located within 200m of the Longbridge roundabout.
- 11.52 For TDC the construction phase impacts of greatest concern are those relating to road traffic. The JSCs wish to see robust measures in the construction traffic routing to avoid HGVs passing through their area on unsuitable roads and would wish the traffic to be directed onto motorway routes.
- 11.53 Appendix 5.3.2: Code of Construction Practice [APP-082] states that traffic management plans will be developed with the highway authorities. A suitable traffic management plan with routings, timings estimated volumes and vehicle booking system should be provided. The plan must also include locations of any vehicle holding areas and provision for suitable consultation mechanisms with local communities. The plan should be reviewed annually to take account of changes to the working areas.
- 11.54 Discussion is also required on how measures that are only listed as potential measures 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.
- 11.55 The examination process should bring forward a suitable control document to ensure appropriate processes are in place to identify and control routes to the numerous construction sites site and consult with Local authorities and other stakeholders such as Parish Councils in relations to timings and volume of traffic on those routes.

Operation Phase Impacts

Positive

11.56 The JSC's have identified no positive impacts during this phase.

Neutral

11.57 The JSC's have identified no neutral impacts during this phase.

Negative

- 11.58 Operational impacts from the proposal have been assessed using a dispersion modelling approach that combine aircraft emissions, on airport sources and emissions from road vehicles. This is a standard approach for airport assessments. The assessment has examined the impacts during several phases of the development up to 2047 (although only an emissions assessment has been carried out for 2047). The assessment has focused on predicting concentrations of NOx/NO₂, PM₁₀ and PM_{2.5}. Operational impacts within Surrey would be expected from a wide range of emission sources including: traffic (e.g. staff and passengers), changes in car parking, changes in aviation emissions (aircraft, vehicles and mobile equipment), combustion plant at the airport and miscellaneous emissions (e.g. engine testing).
- 11.59 The JSCs note the large predicted increase in emissions from the airport as a result of the proposed development. Emissions from the airport being predicted to increase by 14-16% in the design year of 2038. The JSCs are also concerned that even though the assessment predicts that concentrations of pollutant will decrease in the future, the emissions from the airport in 2038 still represent a substantial increase compared with present levels although other pollutant sources will decrease. It would therefore appear that the contribution of the emissions from airport activities to local pollutant levels will increase in the future and it is therefore vital that emissions are minimised as far as possible to ensure local authorities will continue to experience an improvement in air quality in the future. This is of particular concern given the more stringent air quality targets that have been introduced. Therefore, the JSCs would expect to see a plan that aims to minimise any increase in future emissions from the airport and its operations.

Lack of an Air Quality Action Plan.

- 11.60 The development of an AQAP would provide the opportunity to not only mitigate air quality but look at opportunities to improve air quality.
- 11.61 A combined operational air quality management plan has not been prepared to draw together the Carbon Action Plan and Surface Access Commitments documents and to specifically focus on local air quality. An AQAP is required to collate all the proposed air quality mitigation measures, identify any further opportunities to maximise air quality benefits and avoid any unintended consequences. It is also noted that the approach differs from previous discussions where a draft AQAP was provided to the local authorities at a topic working group on 21st October 2022. The proposed air quality action plan could be informed by local monetisation of air quality impacts.
- 11.62 Since the PEIR and also during recent discussions in the air quality technical working group on the 13th December 2023, the Applicant have indicated that an AQAP will be developed, setting out the measures the airport will be taking to reduce air pollution. Slides presented on 16th Jan 23 (slide 18) stated: *GAL will include an Air Quality Action Plan in addition to the mitigation sections in the ES.* Further discussion and reviews of the AQAP will be

required during the Examination to maximise the effectiveness of the AQAP and to include air quality monitoring commitments, including the continuation of existing sites and the addition of further sites. Ongoing engagement requirements should also be incorporated in the AQAP. The AQAP should set out how changes in air quality will be monitored, evaluated and reported to local authorities, along with the further steps that would be taken via the AQAP should air quality deteriorate further than predicted. A wide range of measures are expected to be included, including the development of low or zero emission bus services, measures to support mode shift etc.

- 11.63 The JSCs require that the plan sets out:
 - Costings, performance indicators, delivery timescales.
 - the level of pollution reduction the measure is likely to deliver either as a concentration reduction on the Horley Gardens Estate or tonnage released to atmosphere.
 - what measures are the 'embedded mitigation' i.e. measures the airport has already
 assumed in place in the DCO air quality assessment, so it is possible to assess if these
 measures are on track given the DCO application is based on all these measures
 being implemented. For example Appendix 13.4.1: AQ assessment methodology
 (Paragraph 3.10.2) states,' the traffic data takes into account embedded design
 mitigation in the surface access strategy designed to reduce vehicle numbers'.
 - the additional measures intended to mitigate the increased airport related pollution as discussed in the RBBC section below 'Falling Non Airport Pollution masking rising Airport Related Pollution' and Table 11.5, and reflected in the emissions inventories for the with and without project scenarios. In essence measures to deliver reductions over and above those assumed in the air quality model.
- 11.64 The need for air quality action plans is recognised in government policy Flight path to the future⁷ (p.35) states, 'Air quality emissions and noise from aviation can have detrimental impacts on local communities, and addressing these impacts is an important aspect of a sustainable future for the sector'. It goes on to state, the Government set out new policy proposals to tackle these localised impacts through the Aviation 2050 consultation (2018).' In Aviation 2050: The future of UK aviation (para 3.127) it states, 'The government recognises the need to take further action to ensure aviation's contribution to local air quality issues is properly understood and addressed and is proposing the following measures:...... requiring all major airports to develop air quality plans to manage emissions within local air quality targets'.
- 11.65 It is also important to note that the role of air quality action plans / strategies has moved on from just ensuring compliance with a legal limit value, with DEFRA's 2023 Air Quality Strategy – Framework for local authority delivery (p.18) stating 'Local authorities should consider prevention and reduction of polluting activities in preference to only taking steps to improve air quality once exceedances have been identified'.
- 11.66 In view of the need for an action plan the mitigation and enhancement measures that are planned as part of the operational phase of the project for air quality need to be clearly set out as discussed above.

⁷ Flightpath to the future: a strategic framework for the aviation sector. DfT May 2022

- 11.67 The current environmental statement simply refers to the carbon action plan, but it is unclear which of these measures are intended to benefit air quality nor is any indication given as to the likely reduction such measures are likely to deliver either in terms of pollutant emissions or pollutant concentrations.
- 11.68 In addition, some of the measures in the carbon action plan involve the use of hydrogen, and it is unclear if this is being used in a fuel cell to produce electricity or being burnt. If hydrogen is being burnt this will have little to no impact on NOx emissions, and where the thermal / energy performance is optimised this could lead to higher NOx emissions than carbon based fuels. Equally the use of sustainable aviation fuels (SAF) has potential carbon benefits but there are no measurable impacts seen to date on NOx emissions⁸.
- 11.69 From a RBBC perspective the need for an action plan / mitigation measures is particularly pertinent as despite the 'headline' fall in concentrations on the Horley Gardens estate, away from areas heavily affected by road traffic pollution the absolute amount of airport related NO_x pollution goes up (Table 11.2).

	2018	2024	2029	2032	2038	2038 without development
Airport	8.0	9.2	9.1	10.3	9.9	8.7
Airport	2.0	1.5	0.7	0.8	0.8	0.6
Roads						
Total	10.0	10.7	9.8	11.1	10.7	9.3

Table 11.2: Airport and Airport Roads Contribution to NO_x concentrations at RG1 monitoring site

Need to comply with Crawley / Sussex Planning Policy on Air Quality Mitigation.

- 11.70 In Crawley (the planning authority for Gatwick) the local authorities apply the Air Quality and Emissions Mitigation Guidance for Sussex (2021) to new developments. In essence this applies a damage cost calculation to the additional pollution produced by the development plans which determines the value of the mitigation measures needed.
- 11.71 The local authorities had agreed to the Applicants approach of costing the air quality damage using the TAG assessment methodology, and note that under the central case the damage cost '*is estimated to be £83.5 m in 2010 prices and values*'. (ES Needs Case Appendix 1 National Economic Impact Assessment Table 7.2.1 (APP-251).
- 11.72 Therefore. the additional mitigation measures proposed in the air quality action plan will need to approximate to this value over the lifetime of the project, which should help reduce pollution exposure on the Horley Gardens Estate.

Impact of Ultrafine Particles on Residents

11.73 The ES makes the assumption in Paragraph 13.2.5 that changes in concentrations of PM2.5 is considered to be a good indicator of the general risk associated with exposure to fine and ultrafine particulate matter. The JSCs consider that this assumption is flawed for several reasons:

 $^{^{8}}$ ACI – Integration of sustainable aviation fuels into the air transport system – p.15

- The JSCs are not aware of any work that suggests the PM_{2.5} metric is a good indicator of the risk associated with exposure to ultrafine particulate matter in fact quite the reverse with the WHO stating⁹: 'Generally there is very little or no relationship between particle number count and mass concentrations of larger particles (PM_{2.5})' and goes on to say 'focusing only on PM_{2.5} may result in overlooking the impact of UFP (Ultra fine particles) and there is no evidence that mitigating particle mass only (PM₁₀, PM_{2.5}), as the existing air quality measures do, will necessarily lead to a reduction in UFP.
- UFPs potentially make up a small mass fraction of PM_{2.5} and hence substantial changes in UFP level may be masked by changes in PM_{2.5} emissions from other sources;
- Aircraft emissions are acknowledged to be a significant source of UFPs in comparison with road vehicles, and the increase in UFP emissions from aircraft sources would not be properly captured in the methodology applied in the ES as this will generally be dominated by traffic emissions;
- The methodology used to calculate PM2.5 emissions from some aircraft is based on conversion from smoke number and this provides no information on UFP emissions and there is also a concern that this method is out of date.
- 11.74 As a result of these factors and the level of exposure seen in the local community (see Reigate and Banstead Section below) together with the uncertainty associated with the assessment and the health impacts of UFPs the JSCs consider that monitoring of UFPs should start as soon as possible and a plan for the minimisation and reduction of UFP emissions should be developed by the Applicant. The JSCs acknowledge that a quantitative assessment of UFP impacts with development may not be practical but a qualitative assessment is possible and should be provided. This assessment should consider the current information available regarding UFP levels around Gatwick (data presented in UFP impact on RBBC residents below) and other airports, information on emissions from aircraft (and other sources) and make an assessment of the likely impacts in the area.

PM_{2.5} Assessment

11.75 When determining the impacts of PM2.5, the ES has used the interim target of 12µg/m3 rather than the 2040 target of 10µg/m3 (Paragraph 13.5.34). The JSCs do not consider that this is appropriate for this assessment, particularly as one assessment scenario is for the year 2038. There is a clear direction of travel that is making PM2.5 standards more stringent and this is reflected in both UK policy and the new air quality guidelines from the WHO. Reflecting this, the new UK target for PM2.5 (which is still double the WHO guideline) would be a more appropriate choice.

Odour

- 11.76 The operational phase impact of jet fuel odour has not been quantitatively assessed yet the JSCs receive complaints regarding this and it is a matter of concern to local communities and Councillors.
- 11.77 This is discussed further in the Reigate and Banstead section below.

⁹ WHO (2021) Global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. ISBN 978-92-4-003421-1.https://apps.who.int/iris/handle/10665/345329. Page 151

Article 48 Draft DCO

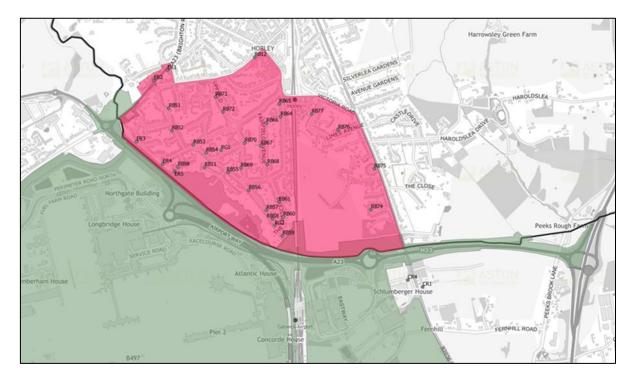
- 11.78 The JSCs also have concerns that Article 48 of the draft DCO which provides a defence to proceedings in respect of statutory nuisance (including odour) goes beyond the precedent set in recent DCOs. Specifically, the Applicant cites the Sizewell C (Nuclear Generating Station) Order 2022, in its explanatory memorandum to the DCO as a precedent when drafting Article 48 for the defence against statutory authority.
- 11.79 However, the Applicant has departed from the cited precedent by assuming greater powers. Article 48(1) lists 7 statutory nuisances falling within paragraph (c), (d), (e), (fb), (g), (ga) and (h) of section 79(1) of the Environmental Protection Act 1990, compared to the four paragraphs for Sizewell (d), (fb), (g) and (ga). Other provisions of Article 48 are also drafted more favourably for the Applicant than in the Sizewell DCO.
- 11.80 Article 48(2) states that: For the purposes of paragraph (1), compliance with the controls and measures described in the code of construction practice will be sufficient, but not necessary, to show that an alleged nuisance could not reasonably be avoided.
- 11.81 This goes beyond the Sizewell 12(1)(a)(iii) and the council would like clarification from the Applicant on the justification for this.

Impacts by Borough and District

11.82 Given the location specific air quality impacts, further detail is provided in the following district and borough specific sections.

Reigate and Banstead

11.83 The main impact of the proposed airport growth on air quality in Reigate and Banstead is in the Horley Gardens Estate located to the NE of the airport (Figure 11.3), which has also been declared an air quality management area for the pollutant nitrogen dioxide. As a consequence the majority of the council's response on air quality grounds focuses on this area. However it is important to note that comments on ultrafine particles (below) while specific to this area are also likely to impact on a far wider area around the airport. Figure 11.3 : Location of Horley Gardens Air Quality Management Area (Red), and Gatwick Project Boundary (Green).



Sensitivity of AQ Impact Assessment to latest Science and policy emanating from that Science.

- 11.84 The UK (and EU) annual average limit value for nitrogen dioxide of 40 μ g m⁻³ was adopted nearly 25 years ago based on the then World Health Organisation (WHO) standard of that period (40 μ g m⁻³) when it was thought that there might be a threshold value i.e. a point below which nitrogen dioxide had no effect. Since that time the science has moved on considerably and it is now recognised that nitrogen dioxide is no threshold pollutant, the health impacts are much better understood and as a consequence the WHO have since revised the WHO guideline value to 10 μ g m⁻³. In response the EU are planning to implement a revision to the EU air quality objectives¹⁰_that sets an annual average limit value of 20 μ gm⁻³ for nitrogen dioxide to be met by 2035.
- 11.85 The Council accepts that for the purposes of assessing the impact of the development the 25 year old UK limit value is valid, but in the context of the more up to date science the negligible / not significant column in Appendix 13.9.1 Part 5 p48 and 49 for EHO receptors on the Horley Gardens Estate (EHO 9, 10, 17 to 36 and 43) would be showing far bigger impacts than the current assessment suggests as shown in Table 11.4.

¹⁰ <u>EU (2022) Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on ambient air quality and cleaner air for</u> <u>Europe. COM(2022) 542 final/2.</u>

GAL Site Code	RBBC Site Code	2032 NO2 base Project	2032 NO2 With Project	Change with Project	Impact
EHO_9	RG1	18.3	19.4	1.1	moderate
EHO_10	RG2	24.8	25.7	0.9	substantial
EHO_25	RB59	25.4	26.1	0.7	substantial
EHO_21	RB55	19.3	20.5	1.2	moderate
EHO_14	RB11	19.3	20.7	1.4	moderate
EHO_43	RB98	19.2	20.6	1.4	moderate
EHO_27	RB61	20.1	21	0.9	moderate
EHO_34	RB70	17.9	18.9	1	moderate
EHO_29	RB65 (towards northeast edge of AQMA)	16.5	17.3	0.8	slight

Table 11.4: Impact assessment using 20 µg/m³ annual limit value for Nitrogen dioxide

- 11.86 While the UK air quality limit values are unlikely to change overnight they are significantly out of step with WHO guidelines and policy being adopted elsewhere in Europe to suggest that they may well change over the next 5 to 10 years.
- 11.87 Therefore the table suggests that a greater degree of caution is needed to monitor and mitigate the air pollution arising from the proposed development than might otherwise be suggested by the assessment in Appendix 13.9.1 Part 5.

Falling Non Airport Pollution masking rising Airport Related Pollution.

- 11.88 The other key point of note on the Horley Gardens Estate is that while the headline nitrogen dioxide concentrations are falling overall, this is driven primarily by falls in the non-airport background concentration and the non-airport road traffic pollution.
- 11.89 There are also falls in the airport related road traffic pollution although these are not as great as those seen in the non-airport traffic due to the airport related traffic growing at a faster rate. However much, and in several cases all, of the airport related road traffic improvements are used up by the growth in the aircraft / airport pollution as shown in Table 11.5.

Table 11.5: Airport and Airport Roads Contribution to NOx concentrations ($\mu g m^{-3}$) at the RG1 monitoring site

	2018	2024	2029	2032	2038	2038 without development
Airport	8.0	9.2	9.1	10.3	9.9	8.7
Airport Roads	2.0	1.5	0.7	0.8	0.8	0.6
Total	10.0	10.7	9.8	11.1	10.7	9.3

11.90 Here it is clear that at the RG1 site the airport contribution has gone from $10\mu g m^{-3}$ of NOx in 2018, to 10.7 in 2038 with the development, having peaked at 11.1 $\mu g m^{-3}$ of NOx in 2032.

- 11.91 In the without development scenario residents would be exposed to 7.5 % less airport pollution in 2038 than in 2018, whereas with the northern runway their exposure to airport related pollution is 15 % higher than it would have otherwise been in 2038 i.e. not only is there no improvement in airport related emissions in 20 years at this site but forecast levels have actually risen.
- 11.92 It is unclear from the current work what the airport related pollution impact will be on residents in 2047 compared to 2038 as the airport declined to model 2047 (despite repeated requests), nor is it possible to assess the 2047 without development scenario to examine the impact of the DCO development in 2047 in its totality. However the emissions inventory does suggest a 4.3 % in airport emissions between 2038 and 2047 driven by a 5.3 % increase in aviation emissions.

Lack of Air Quality Modelling for 2047.

11.93 The 2047 base and with development scenario needs to be modelled in full to examine the impact of the airport on the Horley Gardens estate residents when the airport is at full capacity. This is in line with the airports national policy statement (para 5.33) which says:

'5.33 The environmental statement should assess: Forecasts of levels for all relevant air quality pollutants at the time of opening, (a) assuming that the scheme is not built (the 'future baseline'), and (b) taking account of the impact of the scheme, including when at full capacity;'

- 11.94 In 2038 over 50 % of the NOx pollution exposure at some sites on the Horley Gardens Estate is due to the airport, and in practice this is likely to be higher still given the model does not reflect the falling levels of pollution from background sources. Therefore the airport is the dominant significant local source in 2038.
- 11.95 Based on the emissions inventory the airport will see an overall increase in emissions of 4.3 % between 2038 and 2047 with a 5.3 % increase in aviation emissions (the dominant pollution source of the airport component) over this period. Given the airport is both the dominant local source of pollution and emissions are increasing between 2038 and 2047 this needs to be modelled to understand the impact of the rising airport emissions on the local community.
- 11.96 We are aware that the DEFRA background mapping does not currently go beyond 2030 but also note that a lack of background data has not stopped the Applicant modelling beyond 2030 in the past, with work completed in 2013 (Additional R2 Options: Gatwick Airport. Ricardo-AEA/R/3396)¹¹ looking out to 2040 and 2050.

Lack of confirmed funding for Local Authority pollutant monitoring (NO_x, Nitrogen Dioxide and PM₁₀ and PM_{2.5}) beyond 2038.

11.97 The commitment to continue to fund the monitoring programme in the vicinity of the airport is welcome (para 13.9.9 p64 Chapter 13), although the commitment will need to be strengthened to ensure that the monitoring program is funded in full until 2047 or 389,000 aircraft movements whichever occurs later, rather than 2038 with subsequent 2 yearly reviews given:

¹¹ <u>Air Quality Modelling - Additional R2 Options: Gatwick Airport. Ricardo-AEA/R/3396. Issue Number 1. Date 19/12/2013</u>

- By 2038 the airport will be a significant and in several cases the dominant pollution source (i.e. over 50 %) for nitrogen dioxide.
- By 2038 most if not all of the residents on the estate will still be exposed to levels of pollution above the WHO health based guideline of 10 μg/m³ (even allowing for the current overestimation of the background concentration in 2038) and thus monitoring will still be needed to look at the ongoing health impact on residents.
- The emissions inventory suggests a further 4.3 % rise in airport emissions i.e. increasing nitrogen dioxide pollution between 2038 and 2047.
- 11.98 The S106 provided at the start of February 2024 provides some detail on what the Applicant is proposing to fund. RBBC are currently reviewing this but at present the level of funding does not cover the period to 2047 or 389,000 movements i.e. the airport at full capacity, and the level of funding in relation to the capital replacement costs of the equipment is unclear.
- 11.99 The council would expect the level of funding to be in line with that for 2023/24 with an appropriate CPI uplift to ensure the current monitoring programme can continue given the monitoring programme:
 - Allows an accurate assessment of residents' exposure to air pollution using equipment that is type approved for compliance monitoring purposes i.e. all stakeholders can have confidence in the monitoring results.
 - allows the examination of trends in pollution in the vicinity of the airport e.g. by wind direction to assess the impact of the 2nd runway and the effectiveness of measures to improve air quality on airport, and if a deterioration in air quality occurs to identify the source(s) on or off airport responsible for the deterioration so that appropriate remedial action can be taken.
 - Allows residents most affected by air pollution from the airport to have confidence that pollution levels are falling, and that the predictions made by the airport DCO modelling exercises are being met.
 - Will allow validation of future air quality models used at Gatwick that involve the 2nd runway.
- 11.100 The comments in para 13.9.11 (Chapter 13) relating to the capital replacement of equipment are welcome however we would also suggest the following timetable for capital planning purposes, based on a 10 year life expectancy for the RG1 and RG3 stations and a seven year life span for RG2(6) in line with the replacement programme to date.
 - 2025 RG3 kit replacement including cabin
 - 2026 RG2(6) kit replacement including cabin
 - 2032 RG1 kit replacement including cabin
 - 2033 RG2(6) kit replacement including cabin
 - 2035 RG3 kit replacement including cabin
 - 2040 RG2(6) kit replacement including cabin
 - 2042 RG1 kit replacement including cabin
 - 2045 RG3 kit replacement including cabin
 - 2047 RG2(6) kit replacement including cabin

11.101 The need for real time monitoring of ultrafine particles (both number and size distribution) using equipment used on the UK national network is discussed in the ultrafines section of this response given the significant exposure of residents on the Horley Gardens estate.

Impact of Ultrafine Particles on RBBC Residents

- 11.102 The Applicant in the DCO submission state (Chapter 13 para 13.2.5), 'However, PM2.5 is considered to be a good indicator of general risk associated with exposure to fine and ultrafine particulate matter, and this has been quantitatively assessed in this ES, to allow an evaluation of effects and to respond to stakeholder queries.'
- 11.103 In the Health and Wellbeing chapter (Chapter 18) at para 18.8.3 it states: *The scale of change in UFPs due to the Project is considered to be small. This judgement takes into account the very small relative changes for other types of particulate matter discussed in ES Chapter 13: Air Quality.... Whilst it is acknowledged that this is only an indicator for UFP, the UFPs are of common combustion engine source origin (taking into account that there are volatile and non-volatile components).*
- 11.104 The council is not aware of any work that suggests the PM_{2.5} metric is a good indicator of the risk associated with exposure to ultrafine particulate matter in fact quite the reverse with the WHO stating¹²: 'Generally there is very little or no relationship between particle number count and mass concentrations of larger particles (PM_{2.5})' and goes on to say 'focusing only on PM_{2.5} may result in overlooking the impact of UFP (Ultra fine particles) and there is no evidence that mitigating particle mass only (PM₁₀, PM_{2.5}), as the existing air quality measures do, will necessarily lead to a reduction in UFP.
- 11.105 Given the level of ultrafine particle exposure seen on the Horley Gardens Estate discussed below this approach in the Health chapter is likely to lead to a significant underestimate of the potential health impact even on a qualitative basis.
- 11.106 To date Gatwick has not undertaken any off airport monitoring of ultrafine particles despite this issue first being raised with the airport in June 2012 following some preliminary monitoring by the council in December 2011 (Report to GATCOM Steering Group 28th June 2012), and then annually with the airport thereafter (GATCOM Steering Group June 2013 to present).
- 11.107 The Council was forced to undertake its own monitoring in conjunction with Kings College, Imperial College, and Leicester University in 2018 / 19 to begin to examine if residential exposure in the vicinity of Gatwick was significant given the increasing evidence of the impact of ultrafine particles on health and the airport's on going unwillingness to examine the potential extent of the issue.
- 11.108 While there is no UK legislated standard for UPF (as the Applicant point out in para 13.2.5 of Chapter 13) the WHO did issue guidance¹³ in 2021 defining 'High' and 'Low' UPF exposures in terms of both hourly exposures and daily exposures.

¹² WHO (2021) Global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. ISBN 978-92-4-003421-1.https://apps.who.int/iris/handle/10665/345329. Page 151

¹³ WHO (2021) Global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. ISBN 978-92-4-003421-1.https://apps.who.int/iris/handle/10665/345329.

- 11.109 The main outcomes of the 2018/19 monitoring programme as presented to the steering group of the airport consultative committee in June 2019, June 2020 and June 2021 were:
 - that despite being in the middle of a residential housing estate (Horley Gardens) 350m from the nearest part of the airport, ultrafine particle concentrations when winds were off airport were comparable to those at a kerbside site 1.5m from a six lane highway in central London.
 - Over the 9 month period of sampling for over 50 % of the days residents were exposed to ultrafine particle concentrations that were 'High' on either an hourly or daily basis while zero days were classed as 'Low' based on WHO guideline values.
 - On days matched to a similar UPF monitor located kerbside next to a 6 lane road in central London 216 hours were classed as high in Horley Gardens 350 m from the airport boundary, compared to 111 hours kerbside in London.
- 11.110 Despite being aware of a potential issue for over 11 years the Applicant's only proposal on ultrafines as part of the DCO is to 'commit to participating in national aviation industry body studies of UFP emissions at airports including reviewing how monitoring could be undertaken.'
- 11.111 As far as the council is aware there has been limited, if any, UK industry led work to date looking at residential exposure to ultrafine particles in the vicinity of airports. The only published literature from an industry sponsored source was a 2 month study in 2017 at Heathrow¹⁴ (Oaks Road).
- 11.112 An earlier 2 month residential study in 2014/15 at Harlington near Heathrow was undertaken by the University of Birmingham¹⁵ and not funded by the industry.
- 11.113 The council is currently in the process of developing a revised air quality action plan and air quality strategy for the borough, and DEFRAs Local Air Quality Management Technical Guidance (TG22) states 'In addition to NO2, there is growing evidence of the health impacts associated with Ultra-Fine Particulates (UFP) linked to airport activities. Measurements of UFP close to airports suggest that aircraft are an important source of UFP that can result in elevated concentrations tens of km from airports...... Local authorities should be aware of UFP as a potential pollutant and consider it when preparing Air Quality Plans/Strategies alongside airport operators'.
- 11.114 As part of the Council's interim actions to improve air quality (2022 Annual Status Report Table 2.2 measure 24) a need for ultra-fine particle monitoring in the vicinity of Gatwick was identified based on the results of the council's monitoring in 2018/19.
- 11.115 In Flight path to the Future¹⁶ (p35) it states: 'Air quality emissions and noise from aviation can have detrimental impacts on local communities, and addressing these impacts is an important aspect of a sustainable future for the sector.' It goes on to say. 'In addition, the

¹⁴ Stacey *et al.* (2020) Evaluation of ultrafine particle concentrations and size distributions at London Heathrow Airport. Atmospheric Environment. V. 222, 1 February 2020, doi 117148

¹⁵ Masiol *et al.* (2017) Sources of sub-micrometre particles near a major international airport. Atmos. Chem. Phys., v.17,

pp. 12379–12403.

¹⁶ Flightpath to the future: a strategic framework for the aviation sector. DfT May 2022

Government set out new policy proposals to tackle these localised impacts through the Aviation 2050 consultation (2018).'

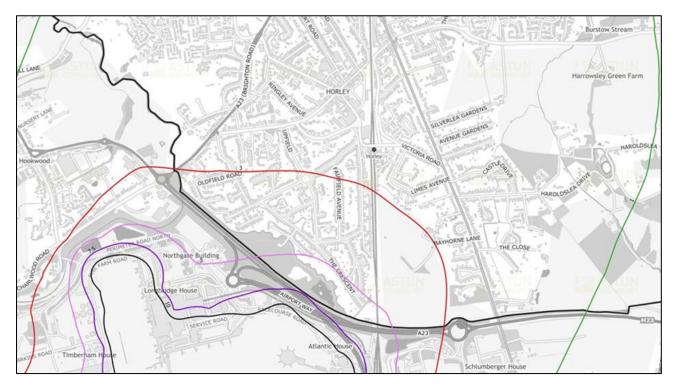
- 11.116 Aviation 2050: The Future of UK Aviation (para 3.127) states: 'The government recognises the need to take further action to ensure aviation's contribution to local air quality issues is properly understood and addressed and is proposing the following measures: improving the monitoring of air pollution, including ultrafine particles (UFP), in order to improve understanding of aviation's impact on local air quality. This will be achieved by standardising processes for airport air pollution monitoring and communication.'
- 11.117 It is also important to note that the Applicant in Chapter 18 (Health and Wellbeing) at para 18.8.85 state: 'The monitoring of UFPs is therefore supported, including correlating results with use of sustainable aviation fuel (SAF) at the airport and, as appropriate, future hydrogen and/or electric aircraft transition. SAF use may reduce UFPs due to its very low sulphur content, though the relationship requires investigation'.
- 11.118 The health chapter also points out (para 18.8.76) that 'Differences in airport and aircraft operations, geography, and meteorology have a significant impact on the results..' which supports the need for dedicated monitoring in the vicinity of Gatwick rather than relying on work elsewhere in the UK given Gatwick's size and use of its 2nd runway closest to the main residential receptors solely for departures.
- 11.119 Given the lack of action by the Applicant to date despite being aware of a potential problem for over 11 years, a limited industry led response to date, and as aircraft emissions (based on NOx a better surrogate for ultrafines) are forecast to increase by 35 % between 2018 and 2032 with the development, and by 40 % by 2047 with the development, the airport needs to fund in full the monitoring of ultrafine particles at one of the council's monitoring sites examining both particle size and particle number to the same standard as that used on the UK national network. The funding needs to continue to 2047 or until the airport reaches 389,000 total movements whichever occurs later and include the 10 year capital replacement costs of the equipment.

Odour Impacts

- 11.120 The operational odour assessment in the DCO has to a large extent simply looked at odour complaints. As the report acknowledges in Chapter 14 para 13.10.179 'the absence of registered complaints does not necessarily indicate the absence of nuisance', and this comment would certainly tie in with the council's direct experience of working with residents on the Horley Gardens Estate.
- 11.121 When discussing air quality the first response is usually 'you should have smelt it last....' even though the discussion is around nitrogen dioxide for example which has no odour at the concentrations being discussed. Equally when a complaint comes in it is usually a sign that the odour level is especially bad rather than the odour being smelt for the first time.
- 11.122 Although the airport did not undertake a quantitative analysis of the odour impact for the DCO, the airport did undertake quantitative work in 2019 (Screening report Assessment of odours arising from Gatwick Airport Ricardo Oct 2019) to begin to understand the likely extent of any potential odour problem although work in this area has since stopped.

The report modelled odour contours around the airport and defined the $3.0 \text{ OU}_{\text{E}}/\text{m}^3$ (98th %ile 1-hour average) contour (red line in Figure 11.6 below) as the area that further work should focus on.

Figure 11.6: Fuel Odour contours on the Horley Gardens Estate. Red line is the 3.0 OUE/m3 (98th %ile 1-hour average) and defines the area where further work on odour should focus.



- 11.123 It would have been helpful if the DCO odour assessment had actually modelled the potential odour impact and examined the change in the 3.0 OUE/m3 and the 5.0 OUE/m3 (light purple in Figure 11.6) contour in the 'with' and 'without' development scenarios but it did not.
- 11.124 Therefore if the DCO is granted further work needs to be undertaken within the 3.0 OU_E/m^3 area to first establish the ambient concentration of aviation fuel at which odours are perceived on the Horley Gardens Estate, using a tracer for aviation fuel such as 1,3,5 trimethlybenzene.
- 11.125 Then assuming the concentrations are high enough that a field based detection system can be used, install a monitor at the RG1 site for one year to examine the distribution of the odour events to help understand the meteorological and operational practices that give rise to the odour issues for local residents.
- 11.126 Once the new runway opens if there is an increase in the number of odour complaints then the equipment can be reinstalled to determine if the number of odour events has increased and, if so, what is driving the increase in odour events so that appropriate changes can be made if needed.
- 11.127 A commitment is therefore needed within the S106 to produce a two stage odour study prior to the construction of the northern runway:

- determine the ambient concentration of aviation fuel at which odours are perceived on the Horley Gardens Estate, using a tracer for aviation fuel such as 1,3,5 trimethlybenzene.
- Subject to the concentrations determined in a) being sufficiently high that a field based detection system can be used, to install a monitor at the RG1 monitoring site for a 1 year period to examine the distribution of odour events and to understand the meteorological and operational practices that give rise to the odour issues for local residents.

Proposed Air Quality Data Dissemination

- 11.128 The council welcomes the Applicants plans to publish its own air quality data on a public facing website (Chapter 13, para 13.9.17) as the council has done for the past 24 years. However, it is important that the data / results from the low cost sensors planned as part of the DCO are caveated as not suitable for compliance monitoring purposes and should only be considered indicative. This is in line with DEFRA's current view of this type of equipment and is important to ensure that residents can have full confidence in the data available.
- 11.129 As the council has previously pointed out to the Applicant (Oct 2022) low cost sensors can give significantly higher (and lower) values for a given pollutant concentration than that measured using equipment approved for use on the UK national network, especially at the nitrogen dioxide concentrations recorded around Gatwick.
- 11.130 Therefore the air quality monitoring data on the proposed public facing website from so called 'low cost' sensors needs to be caveated as 'not suitable for compliance monitoring purposes'.

Mole Valley District Council

- 11.131 There are 551 residential premises located in the mole Valley area within 2.5km of the airport. Based on the calculations and data submitted to support of Environmental Statement Chapter 13 Air Quality APP-038 residents in the area of Povey Cross roundabout will be exposed to materially more pollution in 2038 with the runway than without.
- 11.132 This increased exposure has a material impact on the long-term health and quality of life as indicated in the significant monetisation of AQ impacts in Appendix 1 of the needs case assessment APP-251. Of these 551 properties around 170 properties in Charlwood located between 1.0 and 1.2 km from the end of the runway, and 18 properties are located directly under the flight path.
- 11.133 MVDC considers it essential that the DCO ensures an ongoing commitment to monitor AQ impacts within the area. This extends to include the future monitoring of UFPs. There should be provision to model the impacts of the airport across the impacted authorities every 5 years. There must also be contingency to expand monitoring dependant on the modelled impacts and changes in emerging scientific knowledge.
- 11.134 The Applicant states in the ES para 13.2.5 that changes in PM_{2.5} are considered a good indicator of ultrafine particles. MVDC also questions the science behind this and contends

that the impact of ultrafine particles is increasingly important. MVDC expects the examination process to suitably consider this and ensure ongoing funding in accordance with the Polluter Pays Principle, which was firmly embedded in UK legislation and practice since the Environmental Protection Act of 1990 and further developed under the Polluter Pays principle as most recently enshrined in the Environmental Principles Duty Environment Act 2021.

11.135 Central Government has promoted the policy that the polluter pays for the last 30 years, since the introduction of the Environmental Protection act 1990. It is not acceptable given the high cost of the expansion in terms of health impacts across the population that the operational air quality impacts of the development go unregulated.

Tandridge District Council

- 11.136 The results of the modelling show relatively small changes in pollutant concentrations but do show a continuing exceedance of the new PM_{2.5} target in 2029. A wide range of model verification factors have been used for the assessment, but none are specific to the Tandridge region (a generic zonal factor has been used). The adjustment factors used vary from 1-2 and therefore the range of adjustments made are substantial. Only six monitoring sites have been used for verification in the TDC area and after adjustment, three of the six sites show a worse error than before adjustment.
- 11.137 It is unclear if the model verification factor has been applied to PM₁₀ and PM_{2.5} concentrations. Generally, the adjustment factor used suggests that the model is underestimating pollutant concentrations and this should be clarified. If the verification factor has not been applied, then a justification for this approach is needed.
- 11.138 Eight verification zones have been identified; these seem to have been based on where the model performance was significantly different but without any consideration for specific area features that may have resulted in changes in model performance. TDC are therefore concerned that the model adjustment factors may not be appropriate for their area.
- 11.139 The verification factors have been based on comparison of measured and modelled nitrogen dioxide concentrations. Although 420 monitoring sites were available within the study area, 173 of these were not included within the verification process. One of the criteria for removal of a site from the verification process was if the data capture was less than 75%. This may have resulted in the loss of suitable data for inclusion in verification. The high proportion of monitoring sites omitted (~40%) suggests that the exclusion criteria may have been too stringent. It would be useful to understand the impact of the exclusion of these sites in terms of how this would have affected the verification factor.
- 11.140 It is noted that many assumptions made in the assessment of aircraft emissions are based on information collected for the Project for the Sustainable Development of Heathrow (PSDH) which took place in the early 2000s. Much of the information was collected 20 years ago and relates to earlier aircraft types. In addition, some of the methods used, in particular the conversion of smoke number to obtain PM_{2.5} and PM₁₀ emissions for some aircraft types may be out of date. It is surprising that these methods have not been updated for this assessment as there is much more concern regarding the health impacts of fine particulate matter and UFPs. TDC would require reassurance that the methods applied in the Environmental Statement still represent the best available science for this type of assessment.

- 11.141 Operational phase monitoring is discussed in para 13.9.7 of the ES and the monitoring locations shown in Figure 13.1.10. These monitoring locations are local to the airport and appear to be aimed at capturing the impact of aircraft emissions. Within the TDC area the emissions from motor vehicles would also be of concern and there are no proposals for monitoring the impacts from this source within TDC. Furthermore, although there are some proposals for monitoring within the ES, there are no details regarding how this data will be reviewed and what measures would be taken if the resulting impacts were higher than those predicted.
- 11.142 TDC suggest:
 - Monitoring of baseline levels of ultrafine particles (UFPs) should commence as soon as possible to establish the current baseline;
 - A requirement to maintain the current air quality monitoring funded by the Applicant
 - An Emissions Reduction Plan to reduce the increase in air pollutant emissions as a result of the proposed development

Summa	Summary of Impacts – Air Quality						
Ref 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		
AQ01	Dust and particulate matter generation (Dust Management Plan)	C	Negative	 No Dust Management Plan (DMP) has been provided, but the provision of one is committed to by the Applicant within the CoCP at a later stage. It is proposed this is brought forward to the examination phase. As a minimum the DMP should address the following: 1. The DMP should identify the locations and operations likely to create the highest level of adverse impacts from dust ensure suitable generic mitigation. 2. To include a map showing the forecast areas of High, medium, and low dust impact (without mitigation) and what activity is driving that impact. 3. Provision for a suitable period of baseline monitoring prior to works commencing. 4. The monitoring techniques planned, dust thresholds, monitoring durations and frequencies (where appropriate), 5. The process of reviewing monitoring results including how the plan will be adjusted in response to elevated dust emissions e.g. an action plan for when monitored dust levels exceed a set threshold; 6. Data sharing and reporting process with local authorities 	Future MVDC Policy EN12: Pollution Control RBBC Policy CS10 TDC Policy DP22 and TPL46		

Summa	Summary of Impacts – Air Quality					
Ref 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	
AQ02	Emissions from road going construction vehicles and Non-road mobile machinery (NRMM)	C	Negative	Mandatory requirement in CoCP that road going construction vehicles to meet the London Low Emission Zone standards, and NRMM equipment must as a minimum meet Stage IV requirements from 2024, and stage V from 2030.	RBBC Draft air quality action plan.	
AQ03	Lack of information sharing	C	Negative	Text change in CoCP to share method statements with the local authorities, to share the communications and engagement plan with the local authorities, and to actively share the complaints received from local residents and how the matter was resolved with the local authority.		
AQ04	Construction traffic emissions	C	Negative	Construction Traffic Management Plan (CTMP) and Construction Worker Transport Management Plan (CWTMP) – A CTMP and CWTMP have been provided with the application. This is welcomed to mitigate adverse air quality effects associated with both construction traffic and construction work traffic, but additional information is required e.g. how traffic routings will be enforced, when contingency access arrangements come in, details on the delivery management system, how wheel washing will be secured and so on.	Future MVDC Policy EN12: Pollution Control RBBC Policy CS10 and TDC Policy DP22 and TPL46	
AQ05	Traffic emissions and operational impacts from Aviation (Air	0	Negative	Air Quality Action Plan - A combined operational air quality management plan has not been prepared to draw together the Carbon Action Plan and Surface Access Commitments documents and to specifically focus on local air quality. An AQAP is required to collate all the proposed air quality mitigation	DEFRA Air Quality Guidance (TG22) Flight Path to the Future (p.35) /	

Summa	ary of Impacts – Air	Quality			
Ref 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
	Quality Action Plan)			 measures together, identify any further opportunities to maximise air quality benefits and avoid any unintended consequences. Aviation emissions are expected to be considered within the GAL AQAP. A wide range of mitigation measures for aviation sources are anticipated to be included e.g. Fixed Electrical Ground Power Supplies (FEGP) for new Aircraft Stands, low emission vehicle standards. Discussions are also proposed on the inclusion of ultrafine particulate monitoring. The plan will need to set out: what measures are the 'embedded mitigation' i.e. measures the airport has already assumed in place in the DCO air quality assessment so it is possible to assess if these measures are on track given the DCO application is based on all these measures being implemented, the additional measures intended to mitigate the increased airport related pollution as discussed in the '<i>Falling Non Airport Pollution masking rising Airport Related Pollution</i>' section above, and reflected in the emissions inventories for the with and without project scenarios. It is suggested that the airport also include costings for the additional measures to meet the requirements of the Sussex air quality Guidance. 	Aviation 2050 para 3.127 DEFRA Air Quality Strategy (2023) – Framework for local authority delivery

Summa	Summary of Impacts – Air Quality					
Ref 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	
AQ06	Need to comply with Air quality and Emissions Mitigation Guidance for Sussex (2021)	0	Absence – Negative. If implemented neutral.	Proposed new measures in air quality action plan need to be costed to ensure meets the Sussex guidance. Final AQ action plan prior to granting of DCO.	Crawley Planning Policy /Air quality and Emissions Mitigation Guidance for Sussex (2021)	
AQ07	Impact of ultrafines on residents	0	Negative	A commitment from the airport to fund in full from 2025 ultrafine particle monitoring (both number and size distribution) using equipment used on the UK national network at one of the council's real time monitoring sites out to 2047 or 389,000 movements whichever occurs later, including the capital replacement costs of the equipment on a 10 year basis.	DEFRA Air Quality Guidance (TG22) Flight Path to the Future (p.35) / Aviation 2050 para 3.127	
AQ08	Odour emissions	0	Negative	It is unclear from the application documents how odour emission management will be secured for the operational phase, which has historically been a cause of concern in local communities. Further discussion is required to understand how this can be secured. Discussions are also proposed on how odour monitoring may be secured. It is proposed that this may be achieved through an Operational Odour Management and Monitoring Plan.	Future MVDC Policy EN12: Pollution Control RBBC Policy CS10 and TDC Policy DP22 and TPL46	
AQ09	Odour impact	0	Negative	A S106 commitment to produce a two stage odour study prior to construction of the northern runway to:		

Summa	Summary of Impacts – Air Quality						
Ref 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		
AQ10	Potential underestimation of magnitude of impact	0	Negative	 a) determine the ambient concentration of aviation fuel at which odours are perceived on the Horley Gardens Estate, using a tracer for aviation fuel such as 1,3,5 trimethlybenzene. b) subject to the concentrations determined in a) being sufficiently high that a field based detection system can be used, to install a monitor at the RG1 monitoring site for a 1 year period to examine the distribution of odour events and to understand the meteorological and operational practices that give rise to the odour issues for local residents. Need for fully funded monitoring programme for RBBC within S106 to 2047 not to 2038 with reviews. 			
AQ11	Falling overall pollution levels masking rising Airport Related Pollution.	0	Negative	Need for fully funded monitoring programme for RBBC within S106 to 2047 not to 2038 with reviews.	DEFRA's Air Quality Strategy ^[1] p.18 'Local authorities should consider prevention and reduction of polluting activities in preference to only taking steps		

Summa	Summary of Impacts – Air Quality					
Ref 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	
					to improve air quality once exceedances have been identified' ¹⁷	
AQ12	Lack of Air Quality Modelling for 2047.	0	Negative	Production of model output for Horley Gardens. The emissions inventory for the airport shows an overall increase in emissions of 4.3 % between 2038 and 2047 with a 5.3 % increase in aviation emissions (the dominant pollution source of the airport component) over this period. Needs to be complete to inform DCO.	Airports National Policy Statement para 5.33 'taking account of the scheme at full capacity'	
AQ13	Lack of confirmed funding for conventional pollutant monitoring to 2047 or 389,000 movements whichever occurs later	0	Negative	Need for fully funded monitoring programme for RBBC within S106 to 2047 not to 2038 with reviews. Capital funding required as outlined in main text.	Flight Path to the Future (p.35) / Aviation 2050 para 3.127.	

¹⁷ [1] DEFRA (2023) Air Quality Strategy – Framework for local authority delivery. p.18.

Summa	Summary of Impacts – Air Quality						
Ref 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		
AQ14	Odour Impact	0	Negative	Changes sought in relation to Article 48 in Draft DCO, to allow residents to bring nuisance action in relation to odour as they can do at present.			
AQ15	Use of low costs sensors	0	Potentially negative	AQ monitoring data on the proposed public facing website from so called 'low cost' sensors needs to be caveated as 'not suitable for compliance monitoring purposes'	DEFRA Technical Guidance TG22.		
AQ16	Use of an environmentally managed growth approach	0	Neutral / Positive	The Applicant adopt an environmentally managed growth framework that includes air quality based on the appropriate UK air quality limits and thresholds e.g. Luton Green Controlled Growth Approach.			

12. Noise and Vibration (District and Borough Lead)

12.1 This section provides an overview of the main concerns of the JSCs in relation to the noise and vibration impacts of the Applicant's proposed scheme. Detailed comments for Mole Valley District Council, Reigate & Banstead Borough Council and Tandridge District Council are presented in Appendix C.

Current Context

12.2 The three Surrey districts that border Gatwick will all experience noise and vibration impacts from the construction and operation of the Project. This will vary dependent on their relative location to the airport. In relation to air noise in particular, these areas are affected by the final approach and several noise preferential routes, whichever mode of runway operation - Westerly or Easterly - occurs. The aircraft radar tracks for operation in these directions are shown in Figures 12.1 – 12.5 below. (Source:

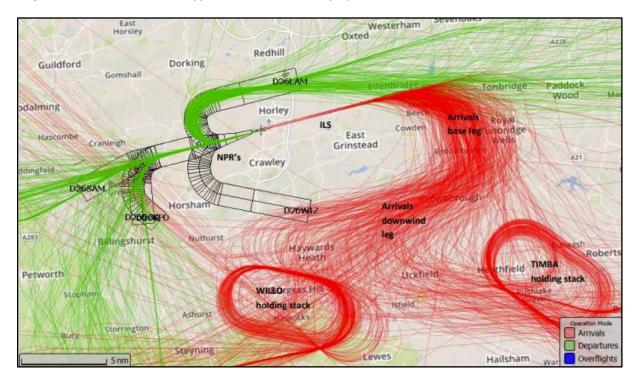


Figure 12.1: The track for a typical 24 hour Westerly operation

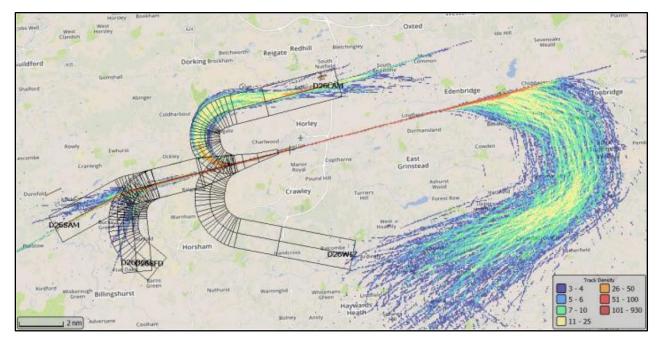
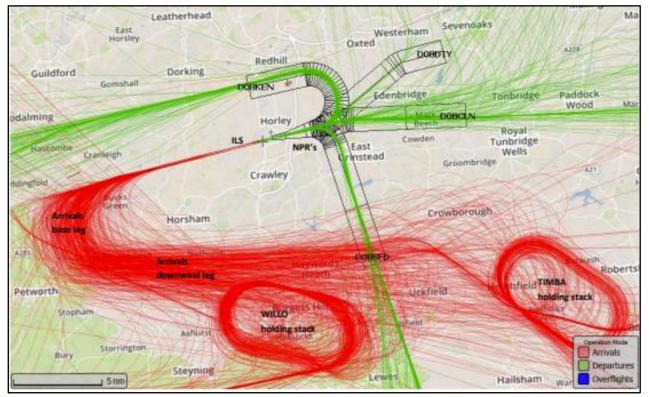


Figure 12.2: The density for a typical 24 hour Westerly operation





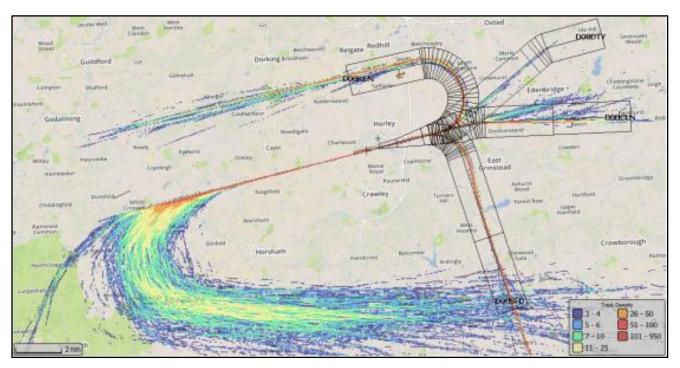
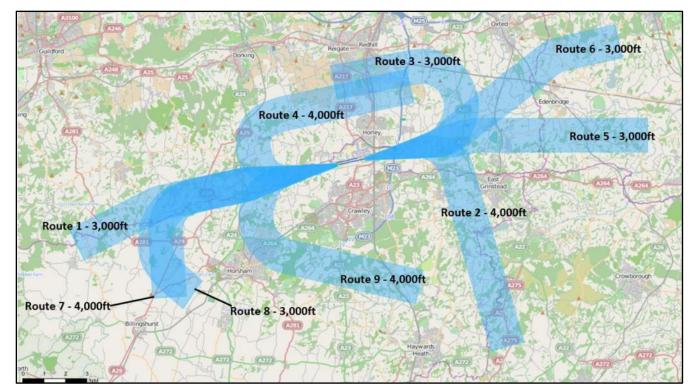


Figure 12.4: The density for a typical 24 hour Easterly operation

Figure 12.5: Gatwick noise preferential routes



Mole Valley District

- 12.3 Communities especially in the south and wider southern half of Mole Valley are currently affected by operational aircraft noise from Westerly departures (mostly from Route 4) and Easterly arrivals and residents will experience more overflights with the Project. Charlwood and areas 1-2 km west of the airport boundary are particularly affected by the noise generated by aircraft leaving the end of the runway. These areas are also impacted by ground noise from the taxi ways towards the western end of the airport and engine running. Some mitigation is currently provided by the existing earth bund at the end of the runway.
- 12.4 As part of the proposals, the Juliet Runway and holding spur will be reconfigured and the earth bund removed, and acoustic barriers and concrete panelled bund erected which will give rise to construction noise impacts.

Reigate and Banstead Borough

- 12.5 Reigate and Banstead is currently affected by air, ground, airport related road traffic, and other airport related noise sources primarily in the south of the borough and especially in Horley, including the Horley Gardens Estate, which will also be heavily affected by construction noise (and a number of other impacts) if the Project goes ahead.
- 12.6 Elsewhere in the borough, residents under and in the vicinity of the Route 4 and Route 3 departure routes from the airport amongst the busiest routes out of the airport are heavily affected by aircraft noise even at the present time. While Route 4 and Route 3 are noise preferential routes, residents living under these routes will see a significant increase in the number of overflights in the 'with' development scenarios over the next 8 to 10 years.

Tandridge District

- 12.7 On Westerly operations, Tandridge is currently affected by air noise from aircraft flying Route 4 and from all arriving aircraft on the final approach, which particularly impacts the communities of Burstow and Lingfield and surrounding areas to the east of the airport. On Easterly operations, parts of the district are affected by overflying aircraft departing on Routes 3, 6, 5 and 2. Communities already impacted can therefore expect to be affected by more overflights if the Project goes ahead.
- 12.8 Many parish councils within Surrey responded to the statutory consultation and have submitted Relevant Representations to the Examination. A key concern relates to the impact of the development on noise levels and many consider proposed mitigation to be insufficient.
- 12.9 Issues raised include:
 - Cumulative impacts of noise from Route 3, Route 4, Heathrow flights and to other airports, particularly the concentration of aircraft flying below 3,000ft in some areas.
 - Increased noise from additional road traffic.
 - Issues with the Applicant's approach to engagement or to provide requested data on noise matters.

- A failure regarding the noise envelope process, which was not determined in consultation with the local community and does not properly take account of community group views.
- The scheme does not ensure that benefits are shared between the aviation industry and local communities, arguably predominantly benefitting Gatwick and its customers.
- A lack of incentive for airlines to introduce the quietest suitable aircraft.
- Concerns that there will be a negative noise impact over a wider area without proper mitigation, including over land designated National Landscape. That aircraft movements will create more of a nuisance, rather than be reduced as suggested by the Applicant.
- Concerns over airport operating hours and negative impacts of night-flights which some parishes believe should be banned.
- Wider implications for health and well-being due to noise impacts.

Policy Context

National

National Planning Policy Framework (NPPF) (December 2023)

12.10 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".

- 12.11 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".

Noise Policy Statement for England (2010)

12.12 The Noise Policy Statement for England (NPSE) sets out Government's overarching policy on noise management. It includes the long-term 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).
- 12.13 Paragraph 2.20 identifies the LOAEL (Lowest Observable Adverse Effect Level) as "the level above which adverse effects on health and quality of life can be detected". Paragraph 2.21 identifies the SOAEL (Significant Observable Adverse Effect Level) as "the level above which significant adverse effects on health and quality of life occur".
- 12.14 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".
- 12.15 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".

Aviation Policy Framework (2013)

- 12.16 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."
- 12.17 Paragraph 3.3 provides context: "We want to strike a fair balance between the negative impacts of noise (on health, amenity (quality of life) and productivity) and the positive economic impacts of flights. As a general principle, the Government therefore expects that future growth in aviation should ensure that benefits are shared between the aviation industry and local communities. This means that the industry must continue to reduce and mitigate noise as airport capacity grows. As noise levels fall with technology improvements the aviation industry should be expected to share the benefits from these improvements."
- 12.18 Paragraph 3.28 states: "The Government expects airports to make particular efforts to mitigate noise where changes are planned which will adversely impact the noise environment. This would be particularly relevant in the case of proposals for new airport capacity, changes to operational procedures or where an increase in movements is

expected which will have a noticeable impact on local communities. In these cases, it would be appropriate to consider new and innovative approaches such as noise envelopes or provision of respite for communities already affected."

- 12.19 At Paragraph 3.29 it states that "The Government wishes to pursue the concept of noise envelopes as a means of giving certainty to local communities about the levels of noise which can be expected in the future and to give developers certainty on how they can use their airports."
- 12.20 Further on in that paragraph it states: *"The Government would determine principles for the noise envelope in the NPS having regard to the following:*
 - The Government's overall noise policy.
 - Within the limits set by the envelope, the benefits of future technological improvements should be shared between the airport and its local communities to achieve a balance between growth and noise reduction.
 - The objective of incentivising airlines to introduce the quietest suitable aircraft as quickly as is reasonably practicable."

Consultation Response on UK Airspace Policy: A framework for balanced decisions on the design and use of airspace (2017)

- 12.21 At paragraph 9, this response document 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".
- 12.22 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."
- 12.23 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."

Airports National Policy Statement (2018)

- 12.24 The Airports NPS sets out planning policy in relation to applications for any airport related nationally significant infrastructure project in the South East of England. Paragraph 1.41 explains that although it caters primarily for the Heathrow Northwest Runway scheme, nevertheless, the contents of the NPS will be both important and relevant considerations for the determination of other applications for airport development, particularly where it relates to London or the South East of England.
- 12.25 The Airports NPS sets out a number of principles for environmental impact assessment:
 - 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." The noise assessment should take into account construction and operational noise (including from surface access arrangements) and aircraft noise.

- 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".
- Paragraphs 5.54 to 5.66 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 include a requirement for the applicant to put forward plans for a noise envelope and that best practice noise mitigation measures should be adopted for the construction phase.
- Paragraph 5.68 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."
- 12.26 For the noise envelope, paragraph 5.60 states: "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 Noise. The benefits of future technological improvements should be shared between the applicant and its local communities, hence helping to achieve a 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."

Beyond the Horizon – The Future of UK Aviation: Making Best use of Existing Runways (2018)

12.27 Paragraph 1.29 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."

Aviation 2050: The Future of UK Aviation – A Consultation (2018)

12.28 Paragraph 3.115 states: The proposed new measures (for a stronger and clearer noise policy framework) 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".
- 12.29 Paragraph 3.121 sets out that the government is also "proposing new measures to improve noise insulation schemes for existing properties, particularly where noise exposure may increase in the short term or to mitigate against sleep disturbance."
- 12.30 Paragraph 3.122 continues: "Such schemes, while imposing costs on the industry, are an important element in giving impacted communities a fair deal. The government therefore proposes the following noise insulation measures:
 - to extend the noise insulation policy threshold beyond the current 63dB LAeq 16hr contour to 60dB LAeq 16hr
 - to require all airports to review the effectiveness of existing schemes. This should include how effective the insulation is and whether other factors (such as ventilation) need to be considered, and also whether levels of contributions are affecting take-up
 - the government or ICCAN to issue new guidance to airports on best practice for noise insulation schemes, to improve consistency
 - for airspace changes which lead to significantly increased overflight, to set a new minimum threshold of an increase of 3dB LAeq, which leaves a household in the 54dB LAeq 16hr contour or above as a new eligibility criterion for assistance with noise insulation."

Overarching Aviation Noise Policy (2023)

12.31 In March 2023, the government published their revised overarching aviation noise policy statement. This was in the context of framing the then upcoming night-time noise abatement objective consultation and also to provide clarity for airports and their stakeholders preparing or responding to noise action plan consultations, both of which were due later in 2023.

12.32 The document stated:

"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."

- 12.33 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.
- 12.34 The statement concluded by saying: "We intend to publish a noise policy paper later this year which will set out our plan to monitor our progress against this objective and what specific actions we are taking in this respect and how the government will evaluate whether the policy aims are being met." At the annual meeting of the UK Airport Consultative Committees in November 2023, a DfT official stated that the Government intend to publish a consolidated noise policy paper in the new year (i.e. 2024).

UK National Policy of Sharing the Benefits of Technological Improvement

- 12.35 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. 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.
- 12.36 In paragraphs 14.2.40 to 14.2.46 of Chapter 14 (APP-039), the Applicant discusses the March 2023 policy statement from the Department for Transport and states: *"Reference to Sharing the Benefits of aircraft noise emission reduction has been removed"* and *"this ES does not provide further material on sharing the benefits."* It is unclear whether the Applicant has interpreted the omission of wording on sharing the benefits as a change in Government policy. However, the JSCs are of the view that 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. 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.

National Policy Statement for National Networks (NPSNN) (2014)

- 12.37 The National Policy Statement for National Networks (NPS-NN) sets out the Government's policies to deliver development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. Paragraph 1.2 states that "The Secretary of State will use this NPS as the primary basis for making decisions on development consent applications for national networks nationally significant infrastructure projects in England."
- 12.38 Paragraph 3.2 states: "The Government recognises that for development of the national road and rail networks to be sustainable these should be designed to minimise social and environmental impacts and improve quality of life." Paragraph 3.3 sets out that applicants are expected to avoid and mitigate environmental and social impacts, and evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes.
- 12.39 Paragraph 5.189 sets out for development subject to EIA what should be included in the applicant's noise assessment as part of the environmental 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;
 - \circ 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.
- 12.40 Paragraph 5.194 states: "The project should demonstrate good design through optimisation of scheme layout to minimise noise emissions".
- 12.41 Paragraph 5.195 states: "The Secretary of State should not grant development consent unless satisfied that the proposals will meet, the following aims, within the context of Government policy on sustainable development:
 - avoid significant adverse impacts on health and quality of life from noise as a result of the new development;
 - mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and

- contribute to improvements to health and quality of life through the effective management and control of noise, where possible".
- 12.42 Paragraph 5.196 highlights the need to ensure that the development does not exceed estimated noise levels, and that mechanisms are in place to secure mitigation to tackle any exceedance.
- 12.43 Paragraph 5.199 makes reference to national noise regulations (Noise Insulation Regulations 1975 as amended) which would apply and for which any eligibility for compensation would need to be determined.
- 12.44 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."

Local

Mole Valley District Council

Adopted Mole Valley Local Plan

12.45 Adopted planning policies seek to restrict the amount of new housing in areas affected by aircraft noise. Policy ENV56 - Housing Development Affected by Noise requires the impacts of noise for both day and night time noise levels to be properly considered within planning applications for housing. It highlights that appropriate conditions will be imposed to ensure an adequate level of protection against noise where relevant to do so.

Future Mole Valley Local Plan

- 12.46 The Council's imminent Local Plan (2020-2037) includes a variety of policy provisions to address noise impacts. In particular, Policy EN12: Pollution Control, sets requirements for high noise or vibration environments or where there is a reasonable possibility of significant adverse noise or vibration impacts. It sets out the importance of mitigation and where relevant aims to ensure existing and future occupiers are not subjected to an unacceptable level of noise disturbance, both within buildings and externally. Policy EN12 also addresses construction impacts of development and requires that proposals minimise the impacts of air pollution, dust, odour, noise, vibration, water pollution, soil contamination and CO2 emissions on nearby sensitive locations arising from demolition and construction. All environmental impacts are required to be mitigated.
- 12.47 Policy INF6: Gatwick Airport sets out that in areas near the airport or otherwise adversely affected by aircraft noise, noise-sensitive development particularly residential schemes will be resisted unless adverse effects of the noise on occupants of the proposed development are shown to be sufficiently mitigated. It requires that specific consideration should be given to the effects of noise on habitable rooms, including night time noise on bedrooms. Where aircraft noise levels would have a significant adverse effect on occupants of the proposed development, both within buildings and externally, noise-sensitive development will be resisted.

Reigate and Banstead Borough Council

Local Plan

- 12.48 Policy CS10: Sustainable development in the Local Plan Core Strategy states that development will "be designed to minimise pollution, including air, noise and light, and to safeguard water quality."
- 12.49 Policy DES9: Pollution and contaminated land in the Development Management Plan (DMP) sets out that development will only be permitted where it can be demonstrated that (on its own or cumulatively) it will not result in a significant adverse or unacceptable impact on the natural or built environment (including sensitive habitats); amenity; or health and safety due to noise pollution. Where there would be potential adverse effects from pollution and adequate mitigation cannot be provided, development will not normally be permitted. This includes pollution from construction and pollution predicted to arise during the life of the development. The policy goes on to say that new development will not normally be permitted where existing noise pollution is unacceptable and there is no reasonable prospect that these can be mitigated against to satisfactory levels.
- 12.50 In relation to development near Gatwick Airport, Policy DES9 states:

"In areas near Gatwick Airport, residential development will be permitted where it can be demonstrated that the noise levels will not have a significant adverse effect on the proposed development. Proposals for residential development on sites falling within the 57 dB LAeq (07:00 to 23:00) or 48 dB LAeq (23:00 to 07:00) noise contours for Gatwick Airport must:

a. Be accompanied by a full noise impact assessment. b. Demonstrate that, through satisfactory design, mitigation and/or attenuation measures, future occupants would not be subject to unacceptable noise disturbance both within buildings and externally."

- 12.51 DMP Policy DES8: Construction Management sets out the following requirements:
 - "1. Through the use of conditions, the Council may require Construction Management Statements to be agreed and implemented on a case by case basis. [...]
 - 2. The Construction Management Statement must address how any development impacts will be managed. The statement should be appropriate to the scale and context of the development but should include:
 - a. Prediction of potential impacts with regard to water, waste, noise and vibration, dust, emissions and odours, ground contamination and soil pollution, wildlife and features and heritage/archaeology. Where potential impacts are identified, mitigation measures should be identified to address these impacts [...]".

Tandridge District Council

Local Plan

12.52 Policy CSP 16 Aviation Development of the Core Strategy states that *"The Council will seek to minimise the impact of Gatwick Airport by working with BAA Gatwick, Crawley Borough*

Council and adjoining local authorities on the development of the airport up to the projected 45 million passengers per annum within the agreed limits of a single runway/two terminal airport. New off-airport parking and extensions to existing sites will be considered in the light of Green Belt policy and the need to minimise the use of the private car to travel to the airport. The Council will oppose any expansion beyond the agreed limits that would adversely affect communities in Tandridge by way of aircraft noise or reduced air quality."

12.53 Policy DP22: Minimising Contamination, Hazards & Pollution states: "The Council will require noise generating forms of development or proposals that would affect noisesensitive development to be accompanied by a statement detailing potential noise generation levels and any mitigation measures proposed (such as containment of the noise generated, screening barriers or restrictive activities/hours of operation) to ensure that all noise is reduced to an acceptable level. Where a development proposal is able to demonstrate that acceptable noise levels will be achieved, the application will be supported."

Surrey Wide

Surrey County Council Guidelines for Noise and Vibration Assessment and Control (Minerals, Waste and Other County Development) (2020)

12.54 The guidelines seek to ensure that noise (including vibration) from new development does not have an unacceptable adverse effect on the natural environment, human health or quality of life through provision of information required when determining planning applications.

Construction Phase Impacts

Positive

12.55 The JSCs have identified no positive impacts during this phase.

Neutral

12.56 The JSCs have identified no neutral impacts during this phase.

Negative

12.57 The Applicant has considered the impacts of construction noise, construction vibration and construction traffic noise during the construction phase of the Proposed Development. Appendix 14.9.1 Construction Noise Modelling (APP-171) presents results in terms of the number of properties predicted to experience construction noise levels between LOAEL and SOAEL and the number of properties predicted to experience construction noise levels exceeding SOAEL. Significant construction noise effects are identified, and mitigation is proposed through measures secured in the Code of Construction Practice (CoCP) and use of acoustic barriers. No significant construction vibration effects are identified; however, vibration generated by vibratory rollers during road compaction has not been assessed.

Impacts by Authority (see also Appendix C)

Mole Valley District

- 12.58 In addition to the removal of the existing earth bund (Northwest Noise Bund) at the end of the runway to allow for the development to take place and its replacement with acoustic barriers and associated bund, other sources of construction noise and vibration that affect Mole Valley will include but not be limited to, construction compounds, vehicle haul roads and loading/unloading areas which will be determined by necessity as the programme develops. Even areas such as the welfare compounds are likely to have fixed plant that can give rise to significant intrusive noise for example from large, fixed diesel generators (and it is considered that using BS4142 (2019) would be a more appropriate assessment method for this type of source at the compounds).
- 12.59 Mole Valley District Council does not consider that the proposed management of the impact from the construction phase properly recognises the long duration of the works and the extent of the disturbance and disruption caused. The proposals indicate that the works are not transient and would last for many months or even years and long term impacts above the LOAEL and shorter but more intense noise impacts will create significant disturbance even if they are below the SOAEL.
- 12.60 Residual exceedances of the night-time SOAEL are predicted at a property in Lowfield Heath Road. The property would be offered noise insulation to reduce significant effects. This property is within the inner zone for aircraft noise insulation. Details should be provided on the interaction between construction noise insulation and aircraft noise insulation.
- 12.61 Residual exceedances of the night-time SOAEL are predicted at five properties on Povey Cross Road due to works on the A23 Brighton Road Bridge for approximately 20 nights. As the SOAEL would not be exceeded for a duration of 10 or more days in any 15 consecutive day period or for more than 40 days in any six-month period, the properties would not qualify for noise insulation. Effects are deemed as not significant despite exceedances of the SOAEL. Duration of exposure is not a reason to define effects as not significant and the adverse impact needs to be addressed.
- 12.62 Residual exceedances of the night-time SOAEL are predicted due to works on the sheet piling works on the A23 Brighton Road Bridge at Burstow Court, 48a Longbridge Road (in Reigate and Banstead) and Gatwick Dairy Farm cottages near the Longbridge roundabout. Properties at Burstow Court, 48a Longbridge Road are likely to be offered insulation; however, although exceedances of the SOAEL are identified at Gatwick Dairy Farm properties, they are unlikely to be offered insulation because: "...the predicted noise levels are at least 6 dB lower." No further explanation is provided yet effects are deemed as 'not significant' despite exceedances of the SOAEL not being addressed and an adverse impact which needs to be managed and monitored.
- 12.63 Evening or early morning activities are a particular concern for affected communities. The CoCP (APP-082) proposes that the core operating hours for the construction works (paragraph 4.2.5) will be as follows: *"Outside the airport boundary, the core working hours will be 07:00 to 19:00 Monday to Friday (excluding bank holidays) and 07:00 to 13:00 on Saturdays"*. Section 4.2.6 goes on to state there will be an additional hour at the beginning and end of the day for work unlikely to cause a nuisance and specifies the work as loading and unloading of lorries. If this takes place in the early hours of the morning or late at night

these activities are highly intrusive. Movements of HGVs in and of themselves generate high levels of noise and Government policy (NPSE) requires such intrusive noise to be mitigated and minimised.

- 12.64 SOAEL noise levels stated in paragraph 5.9.11 of the CoCP (APP-082) are insufficiently justified for all locations and specific SOAELs need to be determined for the shoulder periods in order to be fully understood and justified.
- 12.65 The proposed core working hours in the COCP (APP-082) are unacceptable to Mole Valley District Council and the council expects standard off airport operating hours to be limited as follows, with one hour either side for mobilisation and low impact work as detailed in paragraph 4.2.6 of the CoCP:
 - 08:00 to 18:00 weekdays
 - 08:00 to 13:00 Saturdays
- 12.66 It is noted that the Applicant has asked for extensive and unlimited derogations under Section 82 Environmental Protection Act 1990. The extent of these derogations in the DCO should be restricted to construction and time limited for the duration of the construction work only.

Reigate and Banstead Borough

- 12.67 The main impacts from construction noise are on the Horley Gardens Estate, and residential premises along and off the Balcombe Road.
- 12.68 The Horley Gardens Estate will be affected from noise during the road works on the A23 London Road and the A23 Brighton Road the Horley Gardens Estate and potentially from the Car park Y material reprocessing area, which will include concrete crushing and construction of new Car park Y extending the construction duration time at this site to over 6 years. Other potential noise sources, albeit with a potentially lower impact, are the Longbridge Roundabout site welfare compound (4.5 years in total), and Car park B site welfare compound (2 years concurrent with South Terminal Roundabout compound).
- 12.69 Residents along and off the Balcombe Road, in addition to being affected by noise from works on the M23 spur and South Terminal Roundabout, are likely to be affected by noise from the South Terminal Roundabout Compound (4.5 years) which includes a batching plant.
- 12.70 All the work site compounds are shown below:



Figure 12.6: Location of work site compounds around the airport (Appendix 5.3.1 Buildability Report Part A)

- 12.71 The concrete crusher located in Car Park Y opposite the Horley Gardens Estate (paragraph 8.5.8 appendix 5.3.1: Buildability Report Part A (App-079)) was not modelled as part of the noise assessment of the car park Y compound (p.10 Appendix 14.9.1 (APP-171)). The absence of such a significant and noisy piece of equipment from the assessment of this site raises a concern as to what else has been missed in terms of potential noise sources at the construction phase and suggests a more precautionary approach to mitigation measures is required.
- 12.72 Residual exceedances of the night-time SOAEL are predicted due to works on the sheet piling works on the A23 Brighton Road Bridge at Burstow Court, 48a Longbridge Road. Given this very noisy work will take place at night, the Borough Council would expect to see hydraulic piling techniques used for any sheet piling work taking place in the vicinity of this area. The current proposal is for the use of vibratory piling (Chapter 14 paragraph 14.9.65 (APP-039)) and therefore an explanation is required as to why a noisier technique is being chosen in preference to hydraulic piling for this sensitive residential area.
- 12.73 The Borough Council's suggested hours of work for all developers are Monday to Friday 08:00 to 18:00 and then on weekends Saturday 09:00 to 13:00, with no working on bank holidays or Sundays. This compares with GAL's proposal in the CoCP (APP-082) of core working hours Monday to Friday 07:00 to 19:00 Monday to Friday (excluding bank holidays) and Saturday 07:00 to 13:00 outside the airport boundary. This is then followed by the comment in the CoCP paragraph 4.2.6 of *"A period of up to one hour at the beginning and end of these core working periods is anticipated to be used for start-up and close-down of activities. This will include (but not be limited to) unloading, site briefings, inspection, refuelling, maintenance and general preparation work and housekeeping works. These activities will not include operation of plant or machinery that is likely to cause a disturbance to local residents or businesses."*

- 12.74 The overall core working hours as proposed, in effect 06:00 to 20:00 weekdays and 06:00 to 14:00 on Saturdays, are considered unacceptable at sites likely to impact on local residential premises, especially given the duration of the works, which for residents of part of the Horley Gardens Estate will (based on the life of the contractor compounds) last up to 8 years.
- 12.75 Extended working hours may be necessary in some circumstances and the CoCP (paragraph 4.2.7) states: "In most cases, extended working hours will be from 07:00 to 22:00 Monday to Saturday (excluding bank holidays)". Given the potential for extended working to have taken place on a number of days prior to the weekend, it is not clear why extended hours on a Saturday should last till 22:00 where noise from such works is likely to impact/cause an adverse effect at residential premises. By way of comparison, on the Thames Tideway project DCO where there were impacts on residential premises, extended works only ran till 17:00 on a Saturday.
- 12.76 In relation to overnight working, paragraph 4.2.11 states: "In certain circumstances, works will have to be undertaken outside the core and extended working hours. The relevant local planning authority and the public will be notified in advance in accordance with the Communications and Engagement Management Plan (see section 4.12). Where necessary, Section 61 consents will be obtained from the relevant local authority. Paragraph 4.2.12 continues: "Any activities required to be carried out outside of the core or extended hours within the strategic road network will be agreed with National Highways in advance."
- 12.77 The Borough Council would expect to be notified of any overnight working (i.e. after 22:00) including on the strategic road network where local residents are likely to be impacted by noise. The CoCP needs to be clear that discussions on s61 notices will take place well in advance of night works commencing.
- 12.78 Chapter 14 paragraph 14.9.14 (APP-039) states: "For part of the Longbridge Road area and at the properties on the Balcombe Road nearest the M23, night-time traffic noise levels are above Leq 8 hr 55 dB, with façade levels in the range 60 to 61 dB. For these particular properties the night-time LOAEL and SOAEL have been increased to 60 dB in accordance with the BS5228 methodology". However, this principle in BS5228 only works if the background noise Leq is driven by a relatively constant noise source i.e. traffic noise, and it is possible that on the A23 and M23 late at night that there are gaps in the traffic when residents will hear the construction noise and be more adversely affected by it than the existing Leq noise levels might otherwise suggest. Evidence from traffic noise to confirm the approach being taken is correct. In the event that gaps are present in the road traffic night noise, then the LOAEL and SOAEL should not be increased as proposed.

Tandridge District

12.79 No residual exceedances of the daytime or night-time construction noise SOAEL are predicted in Tandridge. Due to the distance from the main works, it is not anticipated that there will be any impact from construction noise from either on airport works or from works along the M23 and M23 spur. It is possible that some construction noise may be noticeable occasionally during the day, but the effects remain at the lower end of the LOAEL range.

Key issues

Construction Noise and Vibration

- 12.80 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).
- 12.81 Construction noise predictions were undertaken at"...12 of the 13 baseline noise measurement locations shown in Figure 14.4.1. The Charlwood Road Receptor Area has two receptors 3 and 4, but only 3 is used here." (paragraph 14.9.5 (APP-039)). No justification is given for excluding receptor 4 and this approach does not align with Appendix 14.9.1 (APP-171), which identifies the number of properties affected by construction noise. Some clarification is required as to where construction noise predictions were undertaken as using monitoring locations as assessment locations does not cover all receptors that may be affected.
- 12.82 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 nearest receptor to likely sheet piling locations is 50m away. At this distance, vibration effects are deemed as 'not significant', but as there is no commitment to avoid percussive sheet piling, there remains some uncertainty about whether significant construction vibration effects may occur.
- 12.83 No assessment on vibration effects due to the use of vibratory rollers during road compaction has been provided.
- 12.84 Increases 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 Road Traffic Noise Modelling (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.

Construction Phase Mitigation

- 12.85 Embedded mitigation measures are detailed in Chapter 14 Section 14.8 (APP-039). These include Best Practicable Means, which are secured in the CoCP (APP-082). The CoCP also includes a noise insulation scheme and a commitment to obtaining prior consent through the Section 61 process. Further mitigation measures are identified in Section 14.9 (APP-039). However, it is unclear how this specific mitigation would be secured.
- 12.86 Although, the CoCP (APP-082) contains details of Best Practicable Means, there is nothing specific to secure the assumptions in the construction noise assessment. The following items have all been 'assumed' as mitigation measures to reduce noise levels from construction, including at night. However, the need for this level of mitigation has not been

specified in the CoCP and so it is unclear how the Applicant will ensure the assumed level of mitigation in the noise assessment will occur in practice. Key measures that need to be secured include:

- Ensuring the 5dB reduction applied to sheet piling, breakers, bulldozer, compactors, cranes, dump trucks, dumpers, excavators, graders, loaders etc is achieved. This needs to be set in the CoCP.
- Specifying in the CoCP the need for noise barriers including alignment and a minimum height at the following sites:
 - A23 Brighton Road Bridge along the southern side of the utilities diversion bridge.
 - 23 London Road Bridge along the eastern side of the temporary footpath.
 - $_{\odot}$ $\,$ Airport Way Rail Bridge on the northern side of the eastbound carriageway.
 - Car Park X along the southern site boundary.
- 12.87 No construction works should start before 7am or continue after 19:00 where noise is likely to impact on residential premises. This is in line with the Thames Tideway project (Code of Construction Practice Part A: General Requirements)¹⁸ where:

Standard working hours: 08:00 to 18:00 weekdays 08:00 to 13:00 Saturdays

Plus, up to one hour before and after for mobilisation i.e. working hours 07:00 to 19:00 weekdays and 07:00 to 14:00 on Saturdays.

The term 'mobilisation' is clearly defined in the Tideway project as follows which should also apply to applicant's project given the applicant's current 'definition' is somewhat loose:

Arrival and departure of the workforce at the site and movement to and from places of work (if parked engines shall be turned off and staff shall be considerate towards neighbours with no loud music or raised voices); general refuelling (from jerry cans only, use of fuel tractors and bowsers shall be limited to standard working hours); site inspections and safety checks, site meetings (briefings and quiet inspections / walkovers); site clean up (site house keeping that does not require the use of plant); site maintenance; and low key maintenance and safety checking of plant and machinery (providing this does not require or cause hammering or banging, etc). Mobilisation does NOT include lorry movements into or out of sites.

12.88 The CoCP (paragraph 5.9.10) (APP-082) defines the following noise insulation and temporary rehousing thresholds 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

¹⁸ Thames Tideway Tunnel –

12.89 However, it does not appear to define the 10 hr period in terms of time. Assuming that it is 08:00 – 18:00 and the night period is 23:00 - 07:00, this leaves periods where the trigger levels are undefined especially in situations where extended working and 24/7 working are being undertaken. The JSCs consider the following noise trigger values for noise insulation and temporary accommodation should be used for the Project and included in the CoCP. These take the Applicant's proposals and extend them in line with the trigger values used in the Thames Tideway development (Off site mitigation and compensation policy) and in Heathrow Airport Limited's Heathrow expansion proposals (Heathrow Noise Insulation policy- June 2019):

Day	Time	Averaging period, T	Noise insulation trigger value dB LAeq,T	Temporary rehousing trigger value dB LAeq,T
Mondays to Fridays	07:00 to 08:00	1 hour	70	80
i nauys	08:00 to 18:00	10 hours	75	85
	18:00 to 19:00	1 hour	70	80
	19:00 to 22:00	1 hour	65	75
Saturdays	07:00 to 08:00	1 hour	70	80
	08:00 to 13:00	5 hours	75	85
	13:00 to 14:00	1 hour	70	80
	14:00 to 22:00	1 hour	65	75
Sundays and Public Holidays	07:00 to 22:00	1 hour	65	75
Any day	22:00 to 07:00	1 hour	55	65

Table 12.1 Noise Insulation and temporary rehousing trigger values to be included in CoCP.

- 12.90 Elevated night-time temperatures are a particular health hazard during heatwave events as they can prevent recovery from the heat of the day and maintain physiological stress on the body. Where overnight working is proposed in the summer months, the CoCP needs to recognise that residents may be unable to shut their windows at night due to excessive daytime or night time temperatures and the need to cool the property down overnight.
- 12.91 Therefore, in situations where daytime temperatures are over 27C (heatwave definition in south east) and overnight working is planned on two or more consecutive nights, residents where noise levels between 22:00 and 07:00 fall between the LOAEL and the SOAEL (or above the SOAEL) should be offered the opportunity to stay in local hotels with air conditioning overnight (at no cost) so they are able to sleep. This is especially important if the proposed noise mitigation measures fail given there are 39 properties projected to be above the night time construction SOAEL on Longbridge Road in July 2029 (Table 3.1.3, Appendix 14.9.1 (APP-171)).

12.92 The extent of the derogations under Section 82 Environmental Protection Act 1990 the Applicant has asked for in the DCO document should be restricted to construction and time limited for the duration of the construction work only.

Operational Phase Impacts

Positive

12.93 The JSCs have identified no positive impacts during this phase.

Neutral

12.94 The JSCs have identified no neutral impacts during this phase.

Negative

- 12.95 The operational phase of the Project has been considered for air noise, ground noise, operational traffic and fixed plant. Significant air noise effects are identified. These would be partially reduced by noise insulation, but residual significant effects would still occur outdoors. Although a noise envelope has been proposed, it 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 relevant policy requirements and is not considered fit for purpose.
- 12.96 The assessment of ground noise identifies residual significant effects but requires a complete rework as the information provided and the subsequent discussion are not consistent. Acoustic barriers and a bund are included as mitigation; however, it is not identified how the implementation of these measures will be secured. Noise limits for fixed plant have been defined; however, no information on consultation to agree the approach is provided. Furthermore, it is uncertain how these noise limits will be secured.

Air Noise

12.97 The assessment of likely significant effects was undertaken using primary night noise metrics values for LOAELs and SOAELs based on National Aviation Policy:

Table 12.2: Primary metrics

	LOAEL	SOAEL				
Day	L _{eq,16 hour} day 51 dB	L _{eq,16 hour} day 63 dB				
Night	L _{eq,8 hour} night 45 dB	L _{eq,8 hour} night 55 dB				
Sou	Source: Chapter 14: Noise and Vibration (APP-039) Table 14.4.6 Air Noise LOAELs and SOAELs.					

12.98 Secondary metrics including Number Above events - N65 (day) and N60 (night) - number of overflights, Annual Lden and Lnight contours were used to provide context to the assessment. The JSCs consider that these may be equally important either singly or in conjunction in identifying likely significant effects, particularly given that 'averaging' LAeq metrics do not necessarily reflect how residents experience noise. Furthermore, due to the greater impact on health of night time noise exposure, the number of additional awakenings is an important metric that should be given weight.

- 12.99 The assessment of likely significant effects focusses on noise effects in 2032, which is identified as the worst-case year. In terms of secondary metrics such as Number Above and overflights, 2032 is not the worst case. It would be helpful to have an analysis that covered all assessment years to fully understand the temporal effects to the local population of the proposed expansion with secondary metrics supplementing the primary metric assessment.
- 12.100 The Applicant has undertaken a TAG assessment (Table 6.1.1 Appendix 14.9.2 (APP-172)). The JSCs consider that this is likely to underestimate the health costs of noise as it uses evidence for noise effects on health based on studies largely published before 2010 and includes a limited number of health outcomes including amenity (annoyance), subjective sleep disturbance, hypertension, vascular dementia, acute myocardial infarction (AMI), and stroke (paragraph 14.12.22, Chapter 14 (APP-039)). TAG does not include mental health, well-being and quality of life outcomes, yet a number of exposure response functions are being produced that could be used in such an analysis. The JSCs would have expected the Applicant to have adopted such an approach given this was discussed in the *Study on Fair and Equitable Distribution of Aircraft at Gatwick (2022)* commissioned by the Applicant. Consequently, the current assessment is likely to be an underestimate of the true health cost of the Project.

Impacts by Authority (see also Appendix C)

Mole Valley District

- 12.101 Mole Valley is already severely impacted by operational aircraft noise and the most significant change in the primary metric is close into the airport, 1-2 km west of the airport boundary, with approximately 40 properties experiencing an increase in daytime noise of 3-6 dB.
- 12.102 Around 250 additional properties will be exposed to 50 events greater than 60 dB per night in Charlwood (including Russ Hill and Ifield Road) as a result of the Project.

Reigate and Banstead Borough

- 12.103 Any 'with development' scenario leads to an increase in the number of people exposed to a higher noise level both by day and night within the southern half of Horley, and an increase in overflights within the route 3 and route 4 noise preferential routes (NPRs).
- 12.104 It is worth noting that one of the key messages the council has had from local residents over the past 10 years as a consequence of various changes to the Route 4 departure flightpath and 2013 ADNID trial is that the 'average' noise metrics such as Leq metrics on their own do not adequately reflect residents' noise experience on the ground, often with an Leq metric suggesting that there are no noise issues whereas the residents find that there are. There is also support in the science literature for this position especially at night as reported by the DfT in the 2017 night noise consultation where it states: "averaging metrics indicators are insufficient to fully predict sleep disturbance and sleep quality."
- 12.105 As an illustration, the N60 event based metric of 10 events greater than 60 dBA per night covers a far larger area than the 45 dB Leq 8 hr LOAEL proposed by the applicant.

12.106 The final key point is that while some communities will benefit from noise insulation this does not affect outdoor amenity space.

Tandridge District

- 12.107 For Tandridge, under all primary and secondary metrics that have been produced the situation becomes worse as a result of the Project during both the day and night. It is expected that when the overflight information is produced for the missing years this will indicate a substantial increase in overflight because the district is below final approach and noise preferential departure routes.
- 12.108 At night, with existing operations the area already experiences high levels of additional awakenings and this will only deteriorate under the two runway operation.
- 12.109 Communities will benefit from noise insulation, but the increase in overflights will impact outdoor amenity space.

Primary metrics issues

12.110 Whilst the JSCs accept that the thresholds used by the Applicant for the primary metrics are as currently set out in national policy, they consider that these values may underestimate the health impacts of noise and that the Applicant should undertake further sensitivity testing. The following paragraphs set out the JSCs concerns in more detail.

Day time LOAEL and SOAEL

- 12.111 The daytime thresholds of 51 dB LAeq,16h (LOAEL) and 63 dB LAeq,16h (SOAEL) to identify impacts used in the assessment are based on annoyance and derived from the Survey of Noise Attitudes (SoNA) 2014 which:
 - was not designed to determine impacts below 51 dB LAeq,16h
 - the majority of respondents were located around Heathrow (which has a different context to Gatwick)
 - does not take account of vulnerable groups
 - is predicated on studies at airports where there is stable operation.
- 12.112 Therefore, the Applicant's assessment may underestimate the effects of annoyance around Gatwick as it grows (both with and without the Project) given that affected communities tend to react more negatively when there is an expectation that noise annoyance will become worse. Furthermore, as SoNA did not sample levels of lower noise exposure below 51 dB LAeq,16h, this threshold may not be suitable for identifying where health effects begin.
- 12.113 The reliance on a daytime SOAEL of 63 dB LAeq,16h based on SoNA may result in the health effects associated with daytime exposure being underestimated and 60 dB LAeq,16h is increasingly being recognised as the threshold for noise insulation ("Aviation 2050: The future of UK Aviation"¹⁹ consultation and the Manston Airport Decision²⁰).

¹⁹ Aviation 2050 – the Future of UK Aviation

²⁰ Article 9 Manston Development Consent Order

Night time LOAEL and SOAEL

- 12.114 In relation to the effects of exposure to air noise at night, while there is an element of annoyance, the impact on sleep and the effect on health is more significant and it can also result in loss of productivity and impair learning. There is increasing recognition of the importance of reducing the exposure to night noise in UK policy to reduce adverse impacts^{21,22,23}.
- 12.115 The night time 45 dB LAeq,8 hr LOAEL used in the assessment is based on the thresholds cited in Consultation Response on UK Airspace Policy (Department for Transport 2017). However, the World Health Organisation (WHO) Night Noise Guidelines for Europe (2009) ²⁴ state: "The LOAEL of night noise, 40 dB Lnight, outside, can be considered a health-based limit value of the night noise guidelines (NNG) necessary to protect the public, including most of the vulnerable groups such as children, the chronically ill and the elderly, from the adverse health effects of night noise."
- 12.116 At Heathrow, the importance of the WHO LOAEL for night time noise has been recognised in the airspace change options appraisal work as a sensitivity test. Therefore, the JSCs consider that the Applicant should undertake a sensitivity analysis using the 40 dB LAeq,8h threshold compared with the 45 dB LAeq,8h level and this should also be reflected in the health assessment.
- 12.117 The 55 dB LAeq,8h SOAEL threshold as set by Government policy and used in the Applicant's assessment is consistent with the WHO Night Noise Guidelines 2009 in which it was described as an interim target. The WHO 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"*.
- 12.118 The WHO²⁵ in 2018 recommended for the night time period that: "For night noise exposure, the GDG strongly recommends reducing noise levels produced by aircraft during night time below 40 dB L_{night}, as night time aircraft noise above this level is associated with adverse effects on sleep."
- 12.119 The Department for Transport completed a re-analysis of SoNA in 2021 (CAP 2161 Survey of Noise Attitudes 2014: Aircraft Noise and Sleep Disturbance²⁶) to examine what additional insights could be obtained from the original study in relation to night noise. The analysis found that similar levels of % highly sleep disturbed occurred for exposures ranging from 48 dB LAeq,8h to 54 dB LAeq,8h with 14% to 17 % highly sleep disturbed. This suggests that setting the SOAEL at 55 dB LAeq,8h could be underestimating health effects and mitigation requirements.

²¹ Overarching Aviation Noise Policy 2023

²² Aviation Policy Framework 2013 Paras 3.34 to 3.35

²³ Government Consultation Outcome on Night Flight Restrictions

²⁴ WHO (2009) Night Noise Guidelines for Europe ISBN 978 92 890 4173 7. p.109.

²⁵ WHO (2018) ENVIRONMENTAL NOISE GUIDELINES for the European Region.

Supplementary metrics

Noise induced awakening contours

- 12.120 Additional noise induced awakenings caused by external stimuli such as aircraft noise interferes with sleep patterns. Heathrow in its 2019 PEIR document (para 17.7.46 Chapter 17 Noise and Vibration) referring to research by Basner and Samel (2006)²⁷ stated: "For aviation, research on objective sleep disturbance suggests that, on average, to protect health, bearing in mind that a healthy adult briefly awakens around 20 times during an 8-hour night period in environments without external stressors, there should be less than one additional awakening induced by aircraft noise per night".
- 12.121 An awakening contour takes account of both the number of flights and how loud they are i.e. a few loud aircraft may cause an awakening or several less noisy aircraft. This is directly relevant to Gatwick given:
 - it operates utilising the full 8 hour night period unlike Heathrow which operates a voluntary night flight ban between 23:00 and 04:30;
 - it has on average more night flights (127) than Heathrow (87) and Stansted (93) based on the 92 day summer period (2019 figures);
 - the Applicant is looking to grow flights as part of the DCO in the night period especially 06:00 to 07:00.
- 12.122 Given that research on objective sleep disturbance suggests that, on average, to protect health, there should be less than one additional awakening induced by aircraft noise per night the JSCs consider that the one additional awakening per night (92-day summer average) metric should be reflected as a SOAEL in the proposed noise insulation policy. This is in line with the one awakening SOAEL proposed by Heathrow in their noise insulation scheme (2019 Heathrow Expansion Consultation: Noise Insulation Policy Table 4.1).

Single mode contours

12.123 Single mode operation noise contours inform how residents experience aircraft noise when the airport is on Westerly or on Easterly operations on a given day as opposed to the average mode impact. The JSCs consider that these should be reflected in the proposed noise insulation scheme to adequately take account of the impacts as experienced by residents under actual aircraft operations and note that the Airports NPS (para. 5.245) indicates that Heathrow Airport had publicly committed to contributing to insulation of residential properties based on single mode contours.

Secondary metrics issues

LAmax

12.124 Lmax levels from the A320 were calculated to provide an indication of how they may change as a result of the Project. The A320 is one of the most common aircraft at Gatwick so was considered suitably representative of typical aircraft noise levels. However,

²⁷ 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

identification of decreases in LAmax levels due to northern runway departures are potentially misleading as LAmax levels will not change as a result of the expansion.

Annual Lden and Lnight contours

- 12.125 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 LAeq,16h noise contours; however, Lnight contours increase by 11-12%, which is larger than the increase in LAeq,8h contours. This suggests that there is a larger increase in annual night-time movements than in the 92-day summer period.
- 12.126 Clarification should be provided on seasonality during the annual night-time period and whether a larger increase in contour size warrants any identification of significant effects. It would be helpful to understand if there are any seasonal variations in movements during other assessment years.

Overflights

- 12.127 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 detail on the number of overflights is 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 LAmax noise levels.
- 12.128 Figures 14.6.7 to 14.6.9 (APP-063) provide overflight figures from analysis of 2019 data, but no data is provided for 2038 and 2047. Figures showing overflights for future scenarios would allow greater understanding of how communities would be affected by the Project.
- 12.129 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 movements 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. Although the Project does not require new flight paths, use of the northern runway for departures would result in intensification of movements on tracks that are currently infrequently used, that is the northern runway departure tracks that join with the existing departure routes. Northern runway departures should be included so overflights could be understood in areas close to the airport.

Ground Noise

- 12.130 Ground noise is dominated by the use of the End Around Taxiways (EATs), Engine Ground Running (EGR) taxi-ing and engine testing.
- 12.131 The assessment of likely significant effects is based on ground noise predictions in Table 14.9.13 (APP-039) and the change in noise as a result of the Project presented in Table 14.9.14 (APP-039) with reference to the LAeq,T and LAmax noise metrics.

12.132 The assessment 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, while 2032 provides the highest absolute noise levels, there appears to be larger increases in noise at some receptors during other assessment years (Table 5.3.4 and Table 5.3.6 (APP-173)).

Impacts by Authority (see also Appendix C)

Mole Valley District

- 12.133 Of key relevance to Mole Valley are the taxi ways towards the western end of the airport, in particular the Juliet Runway and holding spur, which are being reconfigured.
- 12.134 Based on the LAeq,T noise metric, residual significant effects are likely at various receptor locations:
 - Paragraph 14.9.237 (APP-039) identifies that residual daytime significant effects are predicted at (3) Charlwood Road.
 - In accordance with Table 14.9.14 (APP-039), residual daytime significant effects should also be identified at (2) Charlwood.
 - Paragraph 14.9.238 (APP-039) identifies that residual night-time significant effects are predicted at (2) Charlwood, (3) Charlwood Road and (5) Povey Cross.
 - In accordance with Table 14.9.14 (APP-039), residual daytime significant effects should also be identified at (4) Farmfield.
- 12.135 The LAmax metric also indicates noise from engine ground running at Juliet 4 in excess of 65 dB at five locations:
 - 3 Charlwood Road
 - 2 Frys Cottages
 - Westfield Place
 - The Seasons
 - Brook Farm

(There are multiple sensitive dwellings at these locations and the number of receptors is underestimated.)

12.136 Given the JSCs' concerns over the Applicant's assessment as outlined above, full ground noise modelling is required to better understand the ground noise and predict how changes on airport, including during the removal and replacement of the Northwest Noise Bund, may result in impacts on surrounding communities.

Reigate and Banstead

12.137 Full ground noise modelling is required to better understand the ground noise and predict how changes on airport may result in impacts on surrounding communities.

Tandridge District

12.138 Full ground noise modelling is required to better understand the ground noise and predict how changes on airport may result in impacts on surrounding communities.

Key issues

Metrics

- 12.139 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.
- 12.140 The assessment was undertaken with reference to the LAeq,T and LAmax noise metrics. The use of the LAmax 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)). However, it is unclear why these noise sources are not included when predicting LAeq,T noise levels as they should be represented in a reasonable worst-case day, particularly as EGR is not an instantaneous event so the duration of exposure is an important consideration. The cumulative impact of engine ground running on a typical day needs to be assessed and the number of premises impacted properly considered.
- 12.141 No significant effects are identified from assessment of the LAmax noise metric despite numerous exceedances of the defined criteria being identified (Table 14.9.16 (APP-039)). Consequently, some clarification should be provided as to how the LAmax metric is used to identify significant effects and why significant effects are not identified.
- 12.142 Furthermore, 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 should be assessed as it may identify larger increases in ground noise and result in a greater number of exceedances of SOAEL and so be more representative of the worst-case scenario. Any noise insulation scheme should be based on the worst-case scenario as a precautionary measure.
- 12.143 Noise contours have been provided for aircraft noise and road traffic noise, but no noise contours are provided for ground noise. Ground noise contour plots should be provided for each assessment year and scenario to allow better understanding of the extent of effects. It would be expected that LAeq,T and LAmax contour plots are provided.

Road Traffic Noise

- 12.144 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). The assessment has been carried out and significant effects determined following Design Manual for Roads and Bridges (DMRB) LA111 guidance.
- 12.145 The road traffic noise study area extends 600 m from new highway works associated with the Project. 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).
- 12.146 Baseline road traffic noise predictions have been made at 17 noise sensitive receptors (NSRs) and results are discussed in paragraph 14.6.23 (APP-039). 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. 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).

Impacts by Authority (see also Appendix C)

Mole Valley District

12.147 No residual significant effects during the daytime or night-time periods are identified.

Reigate and Banstead Borough

- 12.148 Although there is a marginal improvement in road noise in certain areas with the scheme compared to the base case in a given year, noise levels remain above the significant adverse effect level (SOAEL) in 2047 and also in a Noise Important Area.
- 12.149 Residents living along Longbridge Road (NSR 5, 6, 15, 16, 17), Woodroyd Gardens (NSR3) and Cheyne Walk (NSR 4) currently (2018) experience road traffic noise levels that are above the SOAEL i.e. the point at which significant adverse effects on health and quality of life are likely to occur, during both the day and night (paragraph 14.6.23 Chapter 14 (APP-039)). Some residents on Longbridge Road (NSR 5) experience noise levels that are within the top 1% of the highest noise exposures in the UK and as such are living within a designated Noise Important Area.
- 12.150 While the Project does offer a marginal improvement over the base case in a given year, by 2047 residents will have seen no real improvement in the noise climate since 2018 and in the Noise Important Area it could potentially be slightly worse.
- 12.151 During the development of the Project, the Applicant considered a 2 m noise barrier between the A23 and Riverside Garden Park shown on Figure 5.1.1 (APP-174) as part of the design and modelled its impact. Table 12.3 below (upper half), indicates that for properties behind the barrier noise levels fall by 4 dB to 6 dB in any given year compared to the 1 dB under the Applicant's current proposed scheme (lower half) and in the Noise Important Area at NSR5 in 2047 noise levels are 65.9 dB i.e. 4.6 dB lower than in 2018.
- 12.152 It is important to note that the residents affected by the ongoing road traffic noise will also:
 - Be impacted by three years of construction work on the Longbridge roundabout and associated bridge works including 20 nights of overnight working and around 5 weeks of sheet piling works, and
 - See the clearance of a significant proportion of the vegetation that currently separates them from the A23. While this vegetation loss will have little impact on the measured noise levels, vegetation loss on this scale does affect the perception of noise as the road itself becomes much more visible.
- 12.153 However, the Applicant has not taken forward the barrier citing that significant effects can be avoided without the barrier due to the road design and speed reduction and visual and ecological impacts.

12.154 Given the noise levels in this area are above the SOAEL, the presence of a noise important area, and an overall lack of improvement in noise in these areas over the lifetime of the project, the council considers the applicant's approach does not meet one of the key aims of the NPSE (2010) i.e. *Where possible, contribute to the improvement of health and quality of life.*

	Baseline 2018	2032 base	2032 DCO	2032 DCO + barrier	2047 base	2047 DCO	2047 DCO + barrier	2047 DCO to 2047 base	2047 DCO + barrier to 2047 base	2047 DCO to 2018 Change	2047 DCO with barrier to 2018 Change
NSR3 Woodroyd Gardens	69	70.2	69.3	64.8	70.6	69.6	65.1	-1	-5.5	0.6	-3.9
NSR4 Cheyne Walk	70.9	72.1	71.1	65.9	72.4	71.4	66.3	-1	-6.1	0.5	-4.6
NSR5 Longbridge Rd E	70.5	71.6	70.5	65.6	71.9	70.8	65.9	-1.1	-6	0.3	-4.6
NSR6 Longbridge Rd W	70.2	71.2	70.5	69.9	71.4	70.8	70.2	-0.6	-1.2	0.6	0
NSR10 Riverside Garden N*	63	64	64.4	60.1	64.3	64.7	60.4	0.4	-3.9	1.7	-2.6
NSR15 Longbridge Rd Centre E	71.2	72.3	70.6	67.8	72.6	70.9	68.1	-1.7	-4.5	-0.3	-3.1
NSR16 Longbridge Rd Centre	70.1	71.2	69.8	68.4	71.4	70.2	68.7	-1.2	-2.7	0.1	-1.4
NSR17 Longbridge Rd Centre W	69.8	70.9	69.8	68.9	71.1	70.1	69.2	-1	-1.9	0.3	-0.6
Data from Noise Bar	rier Note Au	ugust 20)22 / Tal	ble 5.1.1 /	Appendi	x 14.9.4	l .				
NSR3 Woodroyd Gardens	68.6	70	68.9	N/A	70.3	69.2	N/A	-1.1	N/A	0.6	N/A
NSR4 Cheyne Walk	70.6	71.9	70.8	N/A	72.2	71.1	N/A	-1.1	N/A	0.5	N/A
NSR5 Longbridge Rd E	70.2	71.3	70	N/A	71.6	70.4	N/A	-1.2	N/A	0.2	N/A
NSR6 Longbridge Rd W	69.3	70.4	69.5	N/A	70.6	69.8	N/A	-0.8	N/A	0.5	N/A
NSR10 Riverside Garden N*	62.8	63.7	64.1	N/A	64	64.4	N/A	0.4	N/A	1.6	N/A
NSR15 Longbridge Rd Centre E	70.9	72	70	N/A	72.3	70.4	N/A	-1.9	N/A	-0.5	N/A
NSR16 Longbridge Rd C	69.3	70.4	68.7	N/A	70.7	69	N/A	-1.7	N/A	-0.3	N/A
NSR17 Longbridge Rd Centre W	68.6	69.7	68.1	N/A	69.9	68.4	N/A	-1.5	N/A	-0.2	N/A

Table 12.3 Daytime Road Traffic Noise Levels (LA10, 18 hour (Façade))

GAL revised Noise values Table 6.3.1 Appendix 14.9.4

*Free field noise level

Significant adverse effect level SOAEL is 68 dB LA10, 18 hour (Façade) highlighted in red.

Noise Important Area NSR5 highlighted in *bold italic*

Modelled barrier height is 2m.

- 12.155 Chapter 14 paragraph 14.8.28 (APP-039) states: "A low noise surface was also considered as an additional form of mitigation, however, the lack of noise performance of low noise surfaces at the relatively low design speeds in the relevant areas, together with potential maintenance implications, led to the decision that this would not be a suitable and effective form of noise mitigation." Appendix 14.9.4 Road Traffic Noise Modelling (App-174) paragraph 3.3.15 states: "Due to the lower speeds on the A23 and other surrounding roads (<75 kph / 46 mph), applying any low noise surface to the roads would not provide any additional reduction in noise to the roads, therefore, no additional low-noise surface correction was applied to future scenarios."
- 12.156 It is unclear what evidence the Applicant has used in coming to this conclusion. However, research has found (Proceedings of the Institute of Acoustics.v.40, Part 1, pp 400 408)²⁸ that at 30 40 mph there are acoustic benefits to this type of 'whisper tarmac' which would be beneficial and especially important in an area where noise levels are close to or above the SOAEL or affect a Noise Important Area.

Tandridge District

12.157 No residual significant effects during the daytime or night-time periods are identified.

Key issues

- 12.158 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 (APP-039) does clarify that all roads in the strategic model have been screened for changes in road traffic noise.
- 12.159 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.
- 12.160 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 conclusion 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.

²⁸ Muirhead, M. (2018) Road Surface corrections for use with CRTN. Proceedings of the Institute of Acoustics. v.40, Part 1, pp 400 – 408.

- 12.161 Similarly, Table 6.3.3 (APP-174) shows that 57 dwellings and 91 other NSRs are predicted to experience a minor increase in daytime road traffic noise in 2032. Commentary should be provided on the absolute noise levels at these receptors to support the conclusion that none of these increases lead to significant effects.
- 12.162 The limited duration of the baseline sound survey in Riverside Garden Park means that the assessment contains no validation of the road traffic noise model against measurement.

Fixed Plant Noise

- 12.163 Noise limits have been set to aid the design of fixed plant at locations that would be affected by fixed plant noise. Theses 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.
- 12.164 Surrey County Council Guidelines for Noise and Vibration Assessment and Control states: *"It is recommended for normal working hours (weekdays between 07:00 and 19:00 hours), that the difference between the rating levels and the background sound level should be no greater than +5 dB depending upon the context. Lower differences may be appropriate at other sensitive times of the day, depending upon the context."* Fixed plant noise limits have been defined at the measured background noise level so align with Surrey County Council requirements for the period 07:00 to 19:00. However, it is uncertain if consultation has been undertaken to agree whether lower limits are appropriate for more sensitive times of day.

Operational Phase Mitigation

12.165 The Applicant is proposing various mitigation measures in relation to adverse noise and vibration impacts during the construction and operation of the Project. While the JSCs are supportive of these in principle, they have concerns over the details of the noise insulation scheme and noise envelope and would also like to see further additional operations measures.

Noise insulation scheme

- 12.166 Apart from quieter aircraft, improved operational practice, and controlling new development near the airport, the only means to reduce air noise impacts in various Surrey locations is to provide noise insulation or assist with relocation if where the effect of noise is so great. Therefore, it is vital that the noise insulation scheme is workable and effective at permanently reducing exposure and must not result in the creation of other health effects such as poor indoor air quality and overheating.
- 12.167 The Applicant is proposing a noise insulation scheme that comprises:
 - An Inner Zone defined as the larger of the 63 dB Leq,16h or the 55 dB Leq,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.

 An Outer Zone with the outer boundary defined by the 54 dB Leq,16h contour: provision of acoustic ventilators (plus double glazing for older properties) for 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.
- 12.168 The JSCs consider that the design of any scheme must reflect the on-the-day noise experience of residents, and this is better represented by single mode easterly and westerly contours. Therefore, the JSCs consider that single mode contours should be used in the definition of the inner zone. Heathrow Airport's draft noise insulation policy for its expansion programme included using a combined contour based on both full, single mode contours (the Easterly and Westerly mode contours) reflecting Heathrow's commitment for noise insulation reiterated in the Airports NPS (paragraph 5.245). The JSCs are also of the view that the threshold for the inner zone should be a daytime SOAEL of 60 dB Leq,16h to reflect the growing body of evidence indicating that sensitivity to aviation noise has increased and emerging policy in Aviation 2050.
- 12.169 Given the health impacts of sleep disturbance, the night time inner zone boundary definition should combine the one additional noise induced awakening contour (as discussed above) with an appropriate Leq noise SOAEL (i.e. the larger of the contours either alone or in combination defines the inner zone boundary).
- 12.170 A key element of the scheme is acoustic ventilators to enable residents to keep their windows closed but still allow air into the property. However, on hot days much of the overnight cooling of a property will depend on the performance of the ventilators and so an overheating screening assessment should be standard for all eligible properties to ensure the ventilators are sufficient. If this is not the case then the scheme should offer measures to minimise overheating from blinds and shutters to mechanical cooling. The scheme will also need to cover the costs of ongoing service, maintenance, repair, and replacement of the ventilators and any other mechanical equipment supplied.
- 12.171 Some communities are split in terms of eligibility by the extent of the current inner noise insulation scheme. Given that policy requires mitigation of intrusive noise and the uncertainty in the modelling, a sensitivity assessment should be provided to consider if the noise insulation scheme should be expanded in these locations to ensure consistency and fairness.
- 12.172 It is important that eligibility for the scheme should be established in advance on the basis of prediction and an annual target provided to ensure effective and timely installation of insulation and that it should be updated to ensure it is fit for purpose in terms of monetary values and any changes to national policy. The scheme should also take account of ground noise and ensure that properties requiring insulation are identified and insulated prior to the Project opening, not after the project is up and running as suggested by paragraph 14.9.235 in Chapter 14 (APP-039).
- 12.173 Once installed there also needs to be post installation monitoring to ensure that the noise insulation measures provided are sufficient to reduce noise to the level intended.
- 12.174 There needs to be a commitment to annual monitoring of the combined air noise and ground noise levels at specified locations to test the validity of the noise models and to check whether additional properties would qualify for noise insulation.

Noise Envelope

- 12.175 Apart from the DfT night noise regulations, a noise envelope represents the only control on air noise from an airport to protect the local community. The CAA document CAP 1129²⁹ Noise Envelopes sets out:
 - "... a noise envelope should as a minimum:
 - 1. be clearly defined
 - 2. be agreed among stakeholders
 - 3. be legally binding

4. not be compromised by the lack of up-to-date understanding of the relationship between annoyance and the exposure to aircraft noise

5. take account of new technology

6. 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."

- 12.176 CAP 1129 (p46) goes on to set out that once the need for a noise envelope has been established (for example as in this case where a major airport is undergoing significant expansion), the next stages in implementing a noise envelope should be to identify stakeholders and set up an envelope design team including technical and legal representatives from stakeholder groups before producing a proposal for the noise envelope design. The document also identified a possible need for independent third parties to assist stakeholders to reach agreement where necessary.
- 12.177 The JSCs raised concerns over the envelope design process at the statutory consultation when the Applicant produced a fully developed proposal with metrics and limits in the PEIR that had not been designed in conjunction with community groups and local authorities. Following the consultation, the Applicant set up a Noise Envelope Group (NEG) that included a separate Local Sub-Group for community stakeholders and local authorities and another separate Aviation Sub-Group for aviation stakeholders. The NEG was chaired by the Applicant unlike both Heathrow's and Luton's Noise Envelope Design Groups which were independently chaired. This was somewhat surprising given the significant concerns of the local authorities and community groups over the process up to that point.
- 12.178 As part of the process to reach agreement with stakeholders, the local authorities requested information on single mode contours, the noise footprint of the noisiest aircraft operating in 2028/29 and noise contours based on aircraft movements fixed at 2019 levels, but the technology allowed to advance. The request was to reflect the comments from community groups and residents that conventional metrics don't reflect their experience, and to examine how much of the technology benefit from the airport's growth from 2019 to 2028/29 was being shared with the community rather than just the Project element, given that the noise envelope will control total noise as the airport grows not just that arising from the Project. This latter comparison also reflects the adopted scoping opinion for the northern runway³⁰ which, in relation to alternatives, states (paragraph 2.3.13): "*The ES should also give consideration to the prospect of a 'no development' and 'no growth scenario' for comparative purposes and in support of the justification for the Proposed Development in the form that is to be presented in the DCO application."* The information was not supplied by the Applicant.

³⁰ SCOPING OPINION: Proposed Gatwick Airport Northern Runway Case Reference: TR020005. P.8 para 2.3.13.

- 12.179 The JSCs are of the view that the proposed noise envelope was not produced in accordance with what is considered good practice guidance on noise envelopes, and as a result there remain a number of issues with the current proposal which need to be resolved.
- 12.180 One of the conclusions of CAP 1129 is: "The benefits of future technological improvements must be shared fairly between industry and local communities. This is fundamental to the noise envelope concept, and will be considered when defining parameters and setting limits." On mitigation, the Airports NPS³¹ states: "The benefits of future technological improvements should be shared between the applicant and its local communities, hence helping to achieve a balance between growth and noise reduction." Therefore, the JSCs consider that the noise envelope should reflect this principle. As discussed earlier, the Applicant has highlighted (paragraph 14.2.44 Chapter 14 (APP-039)) that the Government's 2023 overarching aviation noise policy statement removes specific wording on sharing the benefits that was included (paragraph 2.69) in its consultation response on its 2017 policy paper, UK Airspace Policy. However, the JSCs are of the view that this does not mean that the principle should no longer apply as there was nothing explicit in the 2023 statement to indicate this is the case.
- 12.181 The noise envelope proposed by the Applicant is predicated on an area under a noise contour expressed in km² and the area not being exceeded, specifically:

•	Area within the LAeq,16h 51 dB contour:	146.7 km ²
•	Area within the I Aea 8h 45 dB contour:	157.4 km ²

- Area within the LAeq,8h 45 dB contour: 157.4 km
- 12.182 These boundaries are based on the slower fleet transition case, which has not been updated since the PEIR despite significant orders of new generation aircraft by EasyJet and other airlines that would mean that the central case fleet assumptions appear much more realistic. The Applicant should revise its forecasts to reflect this likely faster fleet transition, and these should form the basis of a revised noise envelope which would better reflect the sharing the benefits principle.
- 12.183 The noise envelope document (APP-177) states in paragraph 6.1.9 that the first noise envelope limit shall continue for: "*Nine years after the opening of the NRP or by the end of the year when annual commercial ATMs reach 382,000 (whichever is the sooner)…*". Given that the JSCs consider that the demand forecasts have been overstated (see Appendix B), they are concerned that the limit size of the noise contour in the noise envelope will have been set too large. When combined with the slower transition case, this would mean no effective control or incentive to reduce noise levels with no reduction until 2038. To incentivise the introduction of quieter aircraft and reduce noise impacts, there needs to be a better review process for the noise envelope which should include revised fleet forecasts and align with the five year Noise Action Plan cycle.
- 12.184 The current proposal has inadequate sanction and enforcement processes. It allows breaches of the noise envelope for two years before any form of control applies and any sanctions are placed on the airport. At this stage, the JSCs have not seen confirmation that the CAA will take the role proposed by the Applicant. The JSCs are aware of the Green Controlled Growth Framework being proposed as part of Luton Airport's expansion and how it deals with managing the implementation, enforcement and review of a noise

³¹ Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England.- June 2018. Paragraph 5.60.

envelope. Gatwick's noise envelope should similarly be part of an environmentally managed growth approach that could draw on the Luton experience, which has recently been tested at Examination, and includes local authorities as part of the management process. Under this approach, any breaches of limits will have significant implications for the airport in terms of increasing capacity and slot allocation.

Caps on Air Traffic Movements and Passengers

- 12.185 The Applicant has included a cap of 386,000 commercial air transport movements per annum in the draft DCO document (AS-004). Such a cap is supported in principle since unlike other major airports, Gatwick currently has no cap on air traffic movements and/or passengers. However, the JSCs consider that a total movement cap of 389,000 movements per annum should be placed on the airport given that non-commercial air transport movements also produce noise. A cap on passenger numbers should also be considered as a control as there are serious concerns as to whether the surface access commitments are robust with consequent implications for road traffic noise.
- 12.186 The proposed movement cap is more than 100,000 higher than the 280,700 aircraft movements at Gatwick in 2019. Although the Applicant is proposing as a requirement that the northern runway would not be routinely used between 23:00 and 06:00, Gatwick does not operate a voluntary ban on scheduled flights for part of the night period unlike Heathrow (although Heathrow's current voluntary ban is for less than the 6.5 hours expected in the Airports NPS (paragraph 5.62)). The JSCs consider that there should be movement limits on night flights as a DCO requirement given the impact of such flights on sleep disturbance and because Gatwick indicated in its response to Government's 2021 Night Flights Restrictions Consultation that its preferred option would be to remove existing movement limits. As a minimum, the current night noise restrictions (as at March 2024) should be used to set a cap between 23:30 and 06:00 of 11,200 movements in the summer period (218 days) and 3,250 movements in the winter. This would reflect what has been modelled for the night noise impact and used for the health impact assessment. Including a requirement that imposes night noise limits aligns with Government's expectation that appropriate noise controls are usually best set locally through the planning system.

Noise Barriers and Acoustic Bund

- 12.187 To mitigate ground noise impacts, the project proposes to replace the Northwest Noise Bund by a number of embedded mitigation measures detailed in Section 14.76 and 14.8 [APP-039] to:
 - Earthworks, bunding at least 8 metres in height situated at the western end of northern runway.
 - Noise barriers 10 metres in height adjoining the bund installed at the western end of the northern runway and running for approximately 500 metres to the north of the relocated Juliet taxiway and around the boundary of the relocated fire training ground.
 - Landscape bunding around the flood pond has been designed to provide additional ground noise screening.

The Applicant should clarify how these mitigation measures are to be secured.

- 12.188 A 2m noise barrier should be installed along the A23 London Road from the Longbridge Roundabout to the proposed new junction with the A23 to mitigate road traffic noise to levels below the SOAEL and thus contribute to the improvement of health and quality of life in line with the NPSE (2010). Such a noise barrier will for the properties behind it:
 - lead to a significantly greater reduction in noise levels in any given year than the applicant's current proposals.
 - Reduce noise levels in a Noise Important Area, and at other properties that are currently above the SOAEL, to levels below the SOAEL.
 - Result in noise levels in 2047 that are lower than those in 2018 unlike the Applicant's current proposals which result in little to no change.
 - Help reduce the perception of increased noise in the short term by reducing the visibility of the A23 to residential premises.

Use of Whisper Tarmac / Low Noise Road Surface

12.189 Such a surface in conjunction with the noise barrier above, should be used to offer a further reduction in noise to residents in proximity to London Road. The use of such a surface on the wider road network would have benefits across the Horley Gardens Estate where road noise is an issue.

Other Operating Restrictions and Additional Controls

- 12.190 The northern runway is technically capable of accommodating the largest aircraft and future airspace modernisation may enable the Applicant to change its operations compared with its current proposals set out in paragraphs 14.4.4 and 14.13.16 of Chapter 14 (APP-039). Therefore, the JSCs are of the view that a requirement that restricts routine use of the northern runway to smaller Code C aircraft should be included. The Applicant's current proposed operations also restrict routine use of the northern runway to departures only (paragraph 14.4.60 of Chapter 14 (APP-039)) and the JSCs consider that this should be an additional requirement.
- 12.191 Suitable daily, summer and annual limits need to be set to control engine ground running.
- 12.192 A design standard for fixed plant installations of no more than 5 dBA below background when calculated under BS4142 2019 or any equivalent superseding standards should be set in order to minimise cumulative impacts on local communities.
- 12.193 With the push for decarbonisation significant and substantial large air source heat pumps and other fixed plant could be added either as part of the Project or under permitted development. This type of plant often has high levels of low frequency noise, which is not suitably assessed through BS4142 and suitable targets need to be put in place to assess and limit low frequency noise impacts at 63 and 125 Hz.

Further studies

12.194 The WHO and SoNA 2014 exposure response functions used by the applicant are steadystate relationships, reflecting the relationship between current noise exposure and annoyance. They do not reflect how people may respond if there is a change in exposure, which has led to criticism of their use in assessments dealing with airport expansion or airspace change including cost-benefit analyses such as TAG (Independent Commission on Civil Aviation Noise - Review of the Survey of Noise Attitudes 2019). ICCAN recommended that before and after studies of change in aviation noise are needed but studies have yet to be carried out for the UK context.

12.195 In view of the absence of before and after studies on change in aviation noise and its impact on annoyance, the JSCs consider that, should the DCO be granted, such a study is commissioned by the airport to help inform aviation policy, future airport expansion plans, and its own work on the fair and equitable distribution of aircraft movements. This would also help to address local community concerns that existing surveys looking at noise impacts are too focused on Heathrow and do not take account of the more rural location of Gatwick. The outcomes of the work could inform Gatwick's future Noise Action Plans, the airport's proposed reviews of its noise envelope and any updating of its noise insulation scheme.

Compensation

- 12.196 While the proposed noise envelope in theory gives residents an indication that noise levels will get no worse, and the noise insulation scheme helps mitigate some of the worst impacts of noise especially at night, residents within the 54 dB LAeq,16h contour and above during the day still have to cope with noise levels in their garden for example that are recognised by Government as likely to cause annoyance. As became evident during the pandemic, access to outdoor space is important for health and well-being.
- 12.197 The Applicant, in its 2014 consultation document on an additional runway stated: "In the past, big infrastructure projects have been criticised for not providing enough financial compensation to local communities. That is why we believe that our plans to reduce the impact of a second runway should include proposals to ensure that people most affected by expansion at Gatwick are compensated financially". It went on to state "This proposed scheme would include homes already within the existing single runway's contour because we recognise that they would also be affected by intensification of traffic due to R2".
- 12.198 The compensation scheme proposed an annual £1000 contribution towards the cost of the residential property's council tax. The JSCs suggest that a similar scheme for homes within the 54 dB LAeq,16h contour is implemented for the Project. The scheme should apply only to existing residential premises at the commencement of the Project, as any subsequent housing developments would be built in full knowledge of the consented development.

Requirements and Obligations

Summ	ary of Impacts – No	ise and Vibration (See A	ppendix C for f	urther details)	
Ref 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
NV1	Noise emissions from construction activities	C	Negative	 Code of Construction Practice – Further information and discussion is required on noise control measures within the CoCP including but not limited to: Piling techniques – hydraulic piling techniques to be used for any sheet piling work in the vicinity of residential premises. Any proposed use of noisier percussive piling needs to be justified. Working hours near residential premises – Core working hours to be restricted. Mobilisation timings limited and permitted mobilisation activities defined. Saturday extended hours limited to 17:00. Suitable SOAELs to be agreed for work outside core hours. Securing mitigation measures assumed in construction noise modelling ie specifying standards of equipment and appropriate construction noise barriers. Noise insulation and temporary housing trigger levels as set out in Table 12.1. Alternative night time accommodation in hot weather. Suitable contractor led Construction Environmental Management Plan (CEMP). Fixed and mobile plant at construction compounds to be assessed during night operation using BS4142 2019.	Future MVDC Local Plan Policy EN12 – Pollution Control RBBC Policy CS10 and DES8 TDC Policy DP22 and TPL46 NPSE NPPF

Summ	Summary of Impacts – Noise and Vibration (See Appendix C for further details)						
Ref 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		
				Section 82 derogation to be suitably limited to construction activities and only for the duration of the Project.			
NV2	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 (and to be included in the CEMP) including but not limited to: Assessment of vibration impacts to be incorporated in a work phasing and zoning plan and exceedances of night time SOAELs identified in advance. Continuous vibration monitoring in sensitive locations. Percussive piling (see NV1 above). 	Future MVDC Local Plan Policy EN12 – Pollution Control RBBC Policy CS10 and DES8 TDC Policy DP22 and TPL46 NPSE NPPF		
NV3	Changes to road traffic noise levels due to construction traffic	C	Negative	Construction Traffic Management Plan (CTMP) Construction Worker Transport Management Plan (CWTMP) – to include measures to avoid offsite parking in local communities.	Future MVDC Local Plan Policy EN12 – Pollution Control RBBC Policy CS10 and DES8 TDC Policy DP22 and TPL46		

Summ	Summary of Impacts – Noise and Vibration (See Appendix C for further details)						
Ref 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		
NV4	Air Noise (1) Estimation of potential health impacts	0	Negative	Sensitivity analysis to examine the impact of the WHO night time LOAEL of 40 dB LAeq 8h compared to 45 dB LAeq 8h and inform health impact assessment. Updated TAG assessment using more recent exposure response functions.	NPSE NPPF Airports NPS		

Summ	ary of Impacts – No	ise and Vibration (See Ap	opendix C for fu	irther details)	
Ref 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
NV5	Air Noise (2) Noise Insulation Scheme	0	Negative	 Noise Insulation Scheme - DCO/Control documents need to ensure: Inner zone noise insulation scheme extended to full single mode Easterly and Westerly 60dB LAeq 16h noise contours of the expanded airport to mitigate day effects. Inner zone boundary definition to include one additional noise induced awakening contour to mitigate night effects. Costs of maintenance/replacement of ventilators included. Overheating risk assessment and inclusion of cost of appropriate mitigation included. Post installation monitoring to ensure effectiveness. Sensitivity assessment carried out to ensure consistency and fairness for 'divided' communities. 	NPPF Airports NPS

Summ	ary of Impacts – No	ise and Vibration (See A	opendix C for fu	irther details)	
Ref No.	Description of Impact	Construction (C)/ Operation (O)	Negative (N)/ Neutral (Ne)/ Positive (P)	Required mitigation and how to secure it Po (Change/Requirement/Obligation)	olicy Context
NV6	Air Noise (3) Noise Envelope	0	Negative	as does not align with policy requirements and management and enforcement proposals inadequate.Air FuIn particular, DCO/Control documents in relation to the noise envelope need to ensure:Lo EN1. Reflects policy on sharing the benefits of future technological improvements.Co RB2. Based on central case/updated fleet forecasts (not slowTD	PPF irports NPS uture MVDC ocal Plan Policy N12 – Pollution ontrol BBC Policy CS10 DC Policy DP22, SP16 and TPL46

Summ	Summary of Impacts – Noise and Vibration (See Appendix C for further details)						
Ref 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		
				 Clauses around airspace change and low carbon aircraft (Appendix 14.9.7 section 6.5 and 6.6 and para 8.1.4 (APP-177)) to be removed. In the event that the health / annoyance noise exposure response functions change then within five years the noise envelope contours will be updated to reflect these changes which may necessitate a reduction in the noise contour area. i.e. if government defines a LOAEL as 48 dB LAeq, 16h then the area currently assigned to the 51 dB LAeq, 16h would be assigned to the 48 dB LAeq, 16h. The applicant needs to undertake an assessment of historical forecast noise levels (2005 to 2019) vs. actual noise levels in the forecast year to determine the appropriate trigger level to use in the noise envelope i.e. to ensure there is a realistic margin for error when setting trigger levels. 			
NV7	Air Noise (4) Night movements	0	Negative	DCO requirement for a night movement cap – current DfT night noise movement cap in core night period (23:30 – 06:00) of 11,200 movements over the 218 day summer period and 3,250 movements in the winter period not to be exceeded.	NPPF Airports NPS		
NV8	Air Noise (5) Types of aircraft using northern runway	0	Negative	DCO requirement restricting routine use of the northern runway to Code C aircraft or smaller (the basis of the current proposals and assessments in the ES).	NPPF		

Summa	Summary of Impacts – Noise and Vibration (See Appendix C for further details)						
Ref 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		
NV9	Air Noise (6) Routine use of northern runway	0	Negative	DCO requirement that the northern runway should only be used for departures unless the southern runway is not available for use (the basis of the current proposals and assessments in the ES).	NPPF		
NV10	Air Noise (7) Survey work	0	Negative	Obligation to undertake noise survey to examine community annoyance before and after airport expansion works. Survey to be designed with academic partners in a similar vein to the UK SONA study but focused solely on Gatwick.			
NV11	Ground Noise (1) Modelling	0	Negative	 Production of ground noise contour maps (LAeq,T and LAmax) for each assessment year required to improve understanding of extent of effects and inform production of a Ground Noise Management Plan. Slow transition case needs to be modelled as any ground noise insulation scheme should be based on realistic worst case as a precautionary measure. 	NPSE		
NV12	Ground Noise (2) Airport ground based activity noise emissions	0	Negative	Noise barrier/ bund – It is not clear where barriers and bunds that are required to mitigate ground noise are secured. A Ground Noise Management Plan should be provided where all ground noise mitigation/ management measures are secured.	NPSE Future MVDC Local Plan Policy		

Summ	Summary of Impacts – Noise and Vibration (See Appendix C for further details)							
Ref 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			
				 Noise Insulation Scheme – DCO/Control documents need to ensure: Properties needing insulation as a consequence of ground noise identified and insulated prior to the commencement of the project opening not after the project has opened. Commitment to annual monitoring of the combined air noise and ground noise levels at specified locations to check no additional properties would qualify for noise insulation. 	EN12 – Pollution Control RBBC Policy CS10 TDC Policy DP22, CSP16 and TPL46			
NV13	Road traffic noise (1) Changes to road traffic noise levels due to operational traffic	0	Negative	Barriers, traffic management and speed controls – It is not clear where measures to mitigate operational traffic noise are secured.	NPSE Future MVDC Local Plan Policy EN12 – Pollution Control RBBC Policy CS10 TDC Policy DP22, CSP16 and TPL46			
NV14	Road traffic noise (2) Noise Important Areas	0	Negative (as levels remain above SOAEL)	 DCO/Control documents need to ensure: Installation of a noise barrier (2m minimum) from the Longbridge Roundabout to the proposed new junction with the A23 London Road. Installation of low noise road surface on A23 London Road and Airport Way to M23. 	NPSE RBBC Policy CS10			

Summ	Summary of Impacts – Noise and Vibration (See Appendix C for further details)						
Ref 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		
NV15	Noise emissions from fixed plant	0	Negative	Acoustic design of plant and fixed noise sources – It is not clear where measures to mitigate fixed plant noise are secured. Use of BS4142 needs to be clarified, especially in relation to night noise. BS4142 is not considered suitable for assessment of low frequency noise.	Future MVDC Local Plan Policy EN12 – Pollution Control RBBC Policy CS10 TDC Policy DP22, CSP16 and TPL46		
NV16	Loss of amenity Outside space	0	Negative	DCO/Control documents to include an appropriate compensation scheme where existing properties are permanently affected.			

13. Climate Change

Current Context

- 13.1 The Surrey authorities have a shared commitment to the county achieving net zero carbon emissions by 2050, in line with the UK Government's pledge under the Climate Change Act (2050 Target Amendment)
- 13.2 This section focuses on climate change related impacts as follows:
 - Project related Climate Change Resilience (CCR): The resilience of the design, construction and operation of the Project to projected future climate change impacts and,
 - 2) In-combination Climate Change Impacts (ICCI): The combined effects of the Project and potential climate change impacts on the receiving environment and community.
- 13.3 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.
- 13.4 With regards to the operational phase, there were no positive or neutral climate impacts identified, however there were a number of negative impacts, in the form of climate related risks. Of the identified negative impacts none were deemed to be significant, and appropriate mitigation measures had been identified.

Policy Context

National

Airports National Policy Statement (ANPS) (2018)

- 13.5 In reference to climate change projections, Paragraph 4.43 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.
- 13.6 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."*
- 13.7 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.

- 13.8 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."
- 13.9 Paragraph 4.48 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.
- 13.10 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.
- 13.11 Paragraph 4.50 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."
- 13.12 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) (December 2014)

- 13.13 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.
- 13.14 The requirements as per NPSNN regarding Climate Adaptation are the same as the ANPS (as detailed above).

Local

Mole Valley District Council

Adopted Mole Valley Local Plan

- 13.15 The Local Plan (2000) was prepared at a time which preceded the clear direction and emphasis in relation to the climate change, which now exists. That said, it did make some provisions for climate related betterments including policy ENV60: Renewable Energy Projects. The policy advocates for the use of renewable energy sources but in a way which does not have a negative effect on the environment as a result of their size, visual impact and traffic generation.
- 13.16 A goal of the Core Strategy (2009) is to use natural resources wisely, reduce emissions that contribute to climate change and minimise the risk to communities from the effects of climate change. Policy CS19: Sustainable Construction, Renewable Energy and Energy Conservation, is the principal policy which addresses the matter by requiring interventions that reduce the causes of and effects of climate change by minimising energy use through design, maximising on-site recycling facilities and the re-use and recycling of materials used in construction. The policy requires a 10% reduction in total carbon emissions through the on-site installation and implementation of decentralised and renewable or low-carbon energy sources.

Future Mole Valley Local Plan

- 13.17 The Council's imminent Local Plan (2018-2033) makes wide provisions which respond to issues of emissions and climate change and have been informed by up to date national policy and circumstances.
- 13.18 In June 2019, the Council declared a climate emergency and pledged to make all its operations carbon neutral by 2030 and Strategic Objective 13 of the plan seeks: 'To address the causes and impacts of climate change'.
- 13.19 Policy S2: Combatting the Climate Emergency sets out the Council's strategic approach to combatting the matter beyond the Council's operations. It sets policy to secure related interventions and commitment to working with partners to meet targets to reduce carbon emissions from new development, redevelopment and refurbishment and seek opportunities to retrofit existing buildings.
- 13.20 The policy also recognises the alternative ways in which carbon emissions can be cumulatively reduced, including sustainable energy sources, renewable technologies, the creation new and/or improved walking or cycling routes and promoting and encouraging public transport improvements.
- 13.21 Policy EN13: Standards and Targets for Combatting the Climate Emergency sets out, in more detail, what the Council expects from developers and expects proposals for buildings to use low carbon fuels unless it is not practicable or could harm the amenity of occupiers and surrounding properties. The Council's preferred fuels are biofuel and direct electricity at a larger scale and heat pumps, solar panels and micro-turbines at a small or individual dwelling scale. It also introduces the Mole Valley Carbon offset fund, which will be administered by the Council and used to fund carbon reduction measures in the district. The policy requires the incorporation of effective design mechanisms including: sustainable

drainage systems, such as green roofs, green walls, rainwater harvesting, permeable paving, rainwater gardens, swales, reed beds and treatment and balancing ponds.

Mole Valley Climate Change Strategy (October 2020)

- 13.22 In June 2019, the Council declared a Climate Emergency. A motion was passed unanimously by Full Council, specifying a 2030 carbon neutral target. The Council noted that the impacts of climate change are already manifested globally and will impact communities across Mole Valley.
- 13.23 The Council's strategy focuses on reducing carbon emissions from the Council's estate and operations to zero by 2030. As well as reducing MVDC's own emissions, this Strategy also aims to help stimulate action by individuals, communities and organisations in Mole Valley to contribute towards national and international efforts.
- 13.24 In view of these aims, MVDC has developed its Climate Change Strategy with the following strategic priorities:
 - 1. Reducing emissions from MVDC's estate and operations
 - 2. Reducing energy consumption and emissions by promoting energy efficiency measures, sustainable construction, renewable energy sources and behaviour change
 - 3. Reducing consumption of resources, increasing recycling and reducing waste
 - 4. Supporting council services, residents and businesses to adapt to the impacts of climate change.

Mole Valley Climate Change Adaptation Strategy (September 2023)

- 13.25 The climate Change Strategy committed the Council to "identifying how changes in the climate will impact on the Council and its services and taking action to minimise the adverse impacts". The Adaptation Strategy provides a framework under which the Council will deliver against this commitment.
- 13.26 Whilst it is impossible to predict these impacts of climate change completely, MVDC has assessed the risk by analysing data and using scenario planning to develop an initial strategy that are believed to be of benefit to residents. Impacts are categorised under the following headings:
 - 3. Flooding;
 - 4. Extreme heat;
 - 5. Drought and water insecurity; and
 - 6. Extreme cold.
- 13.27 Each impact area is then looked at for its effect on Infrastructure, public health and the natural environment.

Reigate and Banstead Borough Council (RBBC)

Local Plan

- 13.28 The Reigate and Banstead Local Plan Core Strategy (2012) Strategic Objective SO10 seeks: 'To require that developments conserve natural resources, minimise greenhouse gas emissions and help to reduce waste, and are adaptable to climate change (including the risk from flooding.
- 13.29 This is realised through Policy CS10: Sustainable Development which states 'Development will: ...
 - 7) Minimise the use of natural resources and contribute to a reduction in carbon emissions by re-using existing resources, maximising energy efficiency, minimising water use, and reducing the production of waste, including through sustainable construction methods. Encourage renewable energy/fuel production whilst ensuring that adverse impacts are addressed, including on landscape, wildlife, heritage assets and amenity.
 - 8) Be designed to minimise pollution, including air, noise and light, and to safeguard water quality.
 - 9) Be designed reflecting the need to adapt to the impacts of climate change (for example higher temperatures, increased flooding, increased pressure on water resources, impacts on ecology and built heritage and impacts on ground conditions).
- 13.30 Policy CS11: Sustainable construction para 2 states; 'The Council will work with developers and other partners to encourage and promote the development of decentralised and renewable or low carbon energy (including combined heat and power) as a means to help future development meet zero-carbon standards affordably. The policy also requires nonresidential development to meet 'very good' and where a district heat network exist or is planned, or where there is potential to utilise waste heat, development in these areas may be required to facilitate its use and connect to it.
- 13.31 Development Management Policy CCF1: Climate Change Mitigation requires nonresidential developments of 1,000 square metres or more to include renewable or low carbon energy generation to provide 10% of the expected energy usage. The policy includes maximise opportunities to make energy savings in developments and to use sustainable construction methods and materials.

<u>Reigate and Banstead Climate Change and Sustainable Development Supplementary</u> <u>Planning Document 2021</u>

13.32 Provides detailed guidance on adaptation and mitigation for the effects of climate change for new development. It incorporates a Sustainability Checklist to be completed for relevant planning applications.

Tandridge District Council

13.33 TDC declared a climate emergency in 2020 and have developed a Climate Change Action Plan which sets out how the council will become a carbon neutral council by 2030. The plan includes measures to improve transport and air quality across the district, through planning functions and by encouraging biodiversity.

Surrey County Council

- 13.34 In response to the Paris Agreement, SCC has implemented Surrey's Climate Change Strategy (2020), referred to as SCCS. The SCCS aims to provide a joint framework for collaborative action on climate change across Surrey's local authorities and other partners.
- 13.35 The Surrey Climate Change Strategy sets a net zero carbon target for Surrey's organisational emissions by 2030 or sooner and a net zero target for all of Surrey's local authorities by 2035 or sooner. The authorities have a shared commitment to the county achieving net zero carbon emissions by 2050, in line with the UK Government's pledge under the Climate Change Act (2050 Target Amendment). The strategy is structured around 8 key ambitions and themes, including:
 - 2. Transport 60% emissions reduction in the transport sector by 2035 against Business as usual as a minimum
 - 3. Buildings and infrastructure 61% emissions reduction across commercial and public buildings sector by 2035 against BAU as a minimum.
 - 4. Industry and green economy 56% emissions reduction across industry by 2035 against BAU as a minimum
- 13.36 Surrey's roads carry over 60% more than the national average amount of traffic resulting in high emissions, with transport making up 40% of Surrey's carbon emissions in 2018.
- 13.37 Under the Climate Adaptation Section of the SCCS, risks due to climate change are identified, with the following under buildings and infrastructure: "Increased disruption, given that even minor incidents test the capacity of our infrastructure today and climate change is likely to exacerbate this."
- 13.38 Since publishing the Surrey Climate Change Strategy, SCC has published the Greener Futures Climate Change Delivery Plan 2021-2025, which targets a county wide emissions reduction of 1.3 million tonnes and 16-31% emission reduction from private vehicles and freight by 2025.
- 13.39 As detailed in Local transport plan 4, priorities for the transport sector are aimed at reducing journeys, shifting to an increased use of public and active transport modes and developing zero emission vehicle options.
- 13.40 The Delivery Plan commits to building the approach to make Surrey more resilient to the impacts of climate change and to ensure that no one is left behind where residents may be disproportionately affected by climate change.
- 13.41 Subsequently the Surrey Climate Change Adaptation and Resilience Strategy (Surrey Adapt) has been developed and proposes a goal of Surrey adapted to a world 2°C warmer and preparing up to +4°C by 2050.
- 13.42 Surrey's Climate change Adaptation and Resilience Strategy states that developments should include "Climate resilience decision-making into investments around energy transitions, implementation and existing infrastructure" and that new infrastructure should be "designed to reduce climate risks and not placed in 'at risk' spaces".

13.43 Recent flooding impacts cited in the strategy include the closure of Gatwick airport train station and flooding of power and IT equipment in the basement of Gatwick Airport North Terminal in winter 2013-14.

Construction Phase Impacts

Positive

13.44 The JSC's have identified no positive impacts during this phase.

Neutral

- 13.45 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.
- 13.46 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).
- 13.47 The Applicant's assessment concludes that "No Very High or High risks (considered significant) were identified in the assessment, therefore no significant effects are expected."
- 13.48 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 SoCGs, 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."
- 13.49 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.
- 13.50 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

13.51 The JSC's have identified no negative impacts during this phase.

Operational Phase – Impacts

Positive

13.52 The JSC's have identified no positive impacts during this phase.

Neutral

13.53 The JSC's have identified no neutral impacts during this phase.

Negative

- 13.54 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.
- 13.55 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 (e.g., drainage), utilities/service resilience and upgraded highway junctions.
- 13.56 The Applicant's assessments concludes that "No high or very high risks (considered significant) during operation were identified in the CCR assessment."
- 13.57 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.

- 13.58 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."
- 13.59 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.
- 13.60 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.
- 13.61 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."
- 13.62 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.
- 13.63 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

- 13.64 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.
- 13.65 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.
- 13.66 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).

- 13.67 It can therefore be concluded, that whilst further detail on additional mitigation measures could be included in Chapter 15 of the ES (Climate Change) (APP-040), 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.
- 13.68 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 (APP-117) 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.
- 13.69 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 climate related planning requirements and relevant local council policies on climate change.

Summ	Summary of Impacts – Climate Change								
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context				
CC1	Extreme weather and climate events have been identified as creating possible negative impacts for the construction phase impacts. E.g. construction worker health and safety and damage to construction equipment.	C	Neutral	The Applicant has deemed the embedded mitigation measures sufficient, assessing no impacts as Significant and therefore no further mitigation measures required. 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. These measures will be linked to the Gatwick Airside Operations Adverse Weather Plan. The construction related mitigation is therefore secured in the CoCP.	Paragraph 4.45 in the Airports NPS 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.				
CC2	The in-combination impacts of construction of this development with climate change	С	Neutral	The construction related ICCI impacts identified by the Applicant have been assessed as Insignificant due to the embedded mitigation measures secured	Paragraph 4.45 in the ANPS sets out a requirement for new airport infrastructure to consider the impacts of				

Requirements and Obligations

Summary of Impacts – Climate Change					
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context
	could exacerbate environmental impacts to air, land, biodiversity, water, and human health receptors.			via the Code of Construction Practice (CoCP). However, the Applicant needs to better demonstrate what measures they will are 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.	climate change when planning design, build and operation.
CC3	The Applicant identified a variety of risks arising from climate change posing risks during the operational phase of the development. Such as; - extreme weather events affecting aircraft operations	0	Neutral	The Applicant has deemed the embedded mitigation measures sufficient, assessing no impacts as Significant and therefore no further mitigation measures required. However, we do note that only appendix A1 of the DAS is a control document.	The National policy documents including the ANPS and NPSNN.
CC4	The proposed development exacerbating environmental impacts to air, land, biodiversity, water,	0	Neutral	The Applicant has deemed the embedded mitigation measures sufficient, assessing no impacts as Significant and therefore no further mitigation measures required.	Future MVDC Local Plan Policy EN12 – Pollution Control S2 – Combatting the Climate Emergency

Sumn	Summary of Impacts – Climate Change						
Ref No.	Description of Impact	Construction (C) /Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (Change/Requirement/Obligation)	Policy Context		
	and human health receptors			However, the Applicant needs to better demonstrate what measures they are 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.	R&B Policy CS11		
CC5	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.	0	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.	Future MVDC Local Plan Policy EN12 – Pollution Control S2 – Combatting the Climate Emergency R&B Policy CS11		

14. Greenhouse Gases

Current Context

14.1 The release of carbon dioxide and other greenhouse gases is the one of the principal causes of climate change and carbon dioxide globally has now risen to over 400 parts per million (ppm) compared to 280ppm before the 19th Century. There is a scientific consensus that, to prevent overwhelming climate change, carbon dioxide needs to be stabilised below 450ppm. The Surrey average for carbon emissions is notably above the national and south east average.

Area	Total Emissions (2021, ktCO ₂ e)	Per Capita Emissions (2021, tCO ₂ e)	Emissions per km2 (2021, ktCO2e)			
England	309,040.0	5.5	2.3			
South East	43,544.3	4.7	2.2			
Surrey	545.8	4.6	3.3			
Mole Valley	520.5	5.9	2.0			
Reigate and Banstead	721.9	4.8	5.6			
Tandridge	558.3	6.3	2.2			
Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021 - GOV.UK (www.gov.uk)						

Table 14.1: Surrey emissions data

- 14.2 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 NRP on the climate in relation to sustainable development.
- 14.3 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 respectively.

Policy Context

National

Airports National Policy Statement (ANPS) (2018)

- 14.4 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."
- 14.5 In paragraph 5.76, the ANPS sets out the considerations that need to be considered for assessing GHG emissions, including the quantification of impacts. Paragraph 5.76 requires the Applicant to:
 - *"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.*

- Quantify GHG impacts before and after mitigation to show the impacts of the proposed mitigation.
- Split emissions into traded and nontraded sector."
- 14.6 Furthermore, the ANPS in paragraph 5.77 states that the Applicant's assessment should seek to quantify impacts including:
 - "Emissions from surface access due to airport and construction staff;
 - Emissions from surface access due to freight and retail operations and
 - construction site traffic;
 - Emissions from surface access due to airport passengers/visitors; and
 - Emissions from airport operations including energy and fuel use.
 - This should be undertaken in both a 'Do-Minimum' and 'Do-Something' scenario for the opening, peak operation and worst-case scenarios."
- 14.7 The 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".
- 14.8 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."
- 14.9 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."

Jet Zero: Delivering Net Zero Aviation by 2050 (2022)

- 14.10 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.
- 14.11 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.
- 14.12 It's 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 (CORSIA) will be used to manage emissions from aviation to align with the broader UK Governments net zero target.

National Policy Statement for National Networks (NPSNN) (December 2014)

- 14.13 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."
- 14.14 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.
- 14.15 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."
- 14.16 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".*
- 14.17 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.
- 14.18 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 (NPPF) (December 2023)

- 14.19 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 ".*
- 14.20 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.

Local

14.21 To avoid repetition relevant local policy is summarised in Chapter 13 Climate Change.

Construction Phase Impacts

Positive

14.22 The JSC's have identified no positive impacts during this phase.

Neutral

14.23 The JSC's have identified no neutral impacts during this phase.

Negative

- 14.24 The construction period will cause a large volume of greenhouse gases to be emitted. It is estimated that over the course of the 2024–2038 construction period, approximately 1.155 million tonnes of aggregated CO2e will be emitted.
- 14.25 Neither the ES nor the Appendices show the breakdown in the construction emissions, so it cannot be identified where the greatest greenhouse gas emissions impact is during the 2024–2038 construction period.
- 14.26 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 and significant amounts of materials and equipment.
- 14.27 To mitigate against this, the Applicant has developed a Carbon Action Plan (CAP) presented under Appendix 5.4.2 (APP-091) in the ES.
- 14.28 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.
- 14.29 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.

- 14.30 The Applicant currently proposes to do a cost-benefit study, including an analysis of BREEAM feasibility. In line with Crawley Local Plan policies, the wider grouping of Gatwick authorities expect that the Applicant implements BREEAM Excellent certification (for water and energy credits) into the NRP if economically viable.
- 14.31 The Applicant has proposed to use 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.
- 14.32 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. This resulted in the Applicant not accounting for emissions associated with the global shipping of materials and equipment being delivered to the Project.
- 14.33 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).

Operation Phase Impacts

Positive

14.34 The JSC's have identified no positive impacts during this phase.

Neutral

14.35 The JSC's have identified no neutral impacts during this phase.

Negative

- 14.36 The primary adverse impacts will be as a result of greenhouse gases emitted during the operation lifecycle stage of the Project.
- 14.37 The operation of any large-scale airport will have the potential to result in substantial emissions, primarily from aviation and surface access journeys. The operation of the Northern Runway Project would involve the daily movement of large numbers of air transport and surface access movements, 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.
- 14.38 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. Within the Jet Zero Strategy, the Government has committed to implementing the 'high ambition scenario'. 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 Emissions Trading Scheme (UK ETS) and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) will be used to manage aviation emissions.

- 14.39 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).
- 14.40 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 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.
- 14.41 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 MtCO2e will be emitted from operational emissions. In addition, it is reported that the emissions from the Applicant will account for 5.825 MtCO2e during the 6th carbon budget, which represents 3.136% of this budget (Chapter 16 of the ES, APP-041).
- 14.42 Chapter 16 of the ES, (APP-041) identified that aviation emissions were the primary emission source, which represented around 88% of the Scheme'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%).
- 14.43 Inconsistencies were identified in the Applicant's assessment methodology as a whole-life carbon assessment was not presented in the ES (Chapter 16 of the ES, APP-041). The Applicant excluded emissions sources during the operational lifecycle stage of the Scheme, 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 [TR020005] in Section 16.4.18.
- 14.44 In response to the PADs 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".

- 14.45 Under the IEMA GHG Assessment methodology used in the ES Chapter 16 of the ES, APP-041, the Applicant is required to 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%.
- 14.46 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.
- 14.47 The Applicant details in the Carbon Action Plan (App-091) commitments to use internationally recognised offsetting schemes (CAP Paragraph 1.1.4). Within the CAP, the Applicant also commits to investment in carbon removal mechanisms in preference to commonly used offsetting mechanisms.

Required Mitigation

- 14.48 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.
- 14.49 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
- 14.50 Crawley Borough Council sets out in their Local Plan policy ENV6 that new non-domestic buildings should 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.
- 14.51 The wider grouping of Gatwick authorities require 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.

- 14.52 Furthermore, it is mentioned that the Applicant intends to use a Principal Contractor 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.
- 14.53 The Applicant 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.
- 14.54 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%.
- 14.55 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 expansion of the network of hydrogen buses used in the Gatwick area.
- 14.56 In order to track the Applicant's progress on its net zero commitments, the Applicant must submit to the Councils ongoing reporting of issues directly relating to the Northern Runway Project and potential impacts on climate change.

Requirements and Obligations

Summa	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			
GG1	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%.	IEMA methodology			
GG2	The unsustainable growth of airport operations may result in significant adverse impacts to the climate.	C and O	Negative	To monitor and control GHG emissions during the project construction and operation it is suggested a control mechanism similar to the Green Controlled Growth (GCG) Framework submitted as part of the London Luton Airport Expansion Application, is considered. Implementing such a framework would make sure that the Applicant demonstrates sustainable growth while effectively managing its environmental impact. Within this document, the Applicant	Airport Carbon Accreditation Offset Guidance Document			

Summ	ummary 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		
				should define monitoring and reporting requirements for GHG emissions for the Applicants construction activities, airport operations and surface access transportation. Similar to the London Luton Airport GCG 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. 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.			
GG3	Shipping emissions during the transportation of construction materials have the potential to result in the underreporting of the Proposed Development's impact	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 appropriate transport efficiency mitigation measures as part of the CAP under Appendix 5.4.2 in the ES.	N/A		

Summa	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.							
GG4	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 earliest 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.	N/A			
GG5	If the Applicant does not provide infrastructure or services to help	0	Negative	The Applicant should provide infrastructure within the Airport to support the anticipated uptake of electric vehicles and provide electric vehicle charging infrastructure.	SCC sets a key goal for Surrey's County to achieve a 60% reduction			

Summa	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			
	 decarbonise surface transport emissions it may 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 			Additionally, to support this movement, the Applicant should support expansion of the network of hydrogen buses used in the Gatwick area.	in the Transport sector by 2035 against BAU (business as usual) as a minimum.			
GG6	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	Crawley Local Plan Policy			

15. Socio Economic

Current Context

- 15.1 Gatwick Airport plays an important role in supporting employment for Surrey residents, generating investment in the Surrey economy and in attracting and retaining major businesses to locate in the county. The JSCs recognise the potential for the NRP to provide new economic and business opportunities and tourism and international trade growth.
- 15.2 The local authorities surrounding the airport have a strong tradition of working collaboratively to ensure local communities and businesses benefit from the opportunities created by proximity to the airport. This has included participation in the Gatwick Diamond Initiative, which is a public/private partnership established in 2003. The partnership brings a range of business and public sector organisations together to work collaboratively to address the needs of the area as a place to live and work.
- 15.3 The impacted Surrey local authority areas play a key role in the Gatwick Diamond functional economic area. Overall, the area is economically productive, highly skilled with low unemployment. However, the local economy faces longer-term challenges associated with an ageing population, access to technically skilled employees and housing affordability.
- 15.4 The 2022 Surrey and North Hampshire Local Skills Improvement Plan highlights the challenges and opportunities facing the Surrey economy in terms of recruitment and skills. It highlights that businesses are constrained by difficulties in finding workers with both the technical and general skills they need.
- 15.5 Through their economic development activity the JSCs have a particular focus on improving skills and education of the current and future workforce, including areas such as closer working with schools and apprenticeship development. Earlier this year SCC launched a new Careers Hub to inspire and prepare young people for the world of work. The Careers Hub, a single service covering Surrey, will work with Surrey secondary schools, special schools and colleges to ensure every young person can find their best next step.
- 15.6 There is already significant business as usual collaboration between Surrey authorities and the Applicant on economic development activity. During 2023 the Applicant provided a stall at the Surrey Festival of Skills event, participated in the Surrey Business Leaders Forum and worked with the Surrey Careers Hub to promote the Gatwick STEM Centre to schools and colleges across Surrey. The STEM centre opened in 2023 as a bespoke, hands-on space to inspire and motivate children about STEM and careers in aviation. The centre was set up as a one year pilot.
- 15.7 From April 2024, SCC will launch the One Surrey Growth Hub. This hub will be a central resource for small and medium-sized enterprises in Surrey, providing business support to stimulate growth. SCC encourages the Applicant to actively engage with the Growth Hub to effectively promote supply chain opportunities and ensure that Surrey businesses are well-prepared and capable of capitalising on opportunities associated with the Project.

- 15.8 SCC is developing an Inward Investment prospectus showcasing the region's strengths, advantages and development opportunities to prospective investors. The NRP presents a significant opportunity to promote future domestic and international trade and investment opportunities for the region. The JSCs encourage the Applicant to support the promotion of the prospectus to international inbound passengers.
- 15.9 There is already an established local authority focus on regeneration activity in Horley town centre, with a defined programme entitled 'Delivering Change in Horley Town Centre'. Enhancing the public realm across the town centre is a top priority. Extensive community engagement has also identified a desire for improved active travel links and more green spaces and community spaces. The work has recognised the benefits of the town's location, including good connectivity and proximity to Gatwick. An aim is to capitalise on these strengths to improve quality of life for existing residents and newcomers.
- 15.10 The Applicant currently operates a Community Fund which covers parts of East and West Sussex, Surrey and Kent. The fund is an obligation within the current Section 106 agreement between the Applicant, Crawley and West Sussex. Funding is intended to support projects in those areas directly affected by operations at the airport. Within Surrey the area covered extends northwards to Oxted, Redhill, and Dorking, roughly following the A25, and westwards to include parts of the borough of Waverley including Cranleigh and Chiddingfold. Within Surrey this reflects areas most impacted by flightpaths.
- 15.11 Funds are based on passenger numbers and are used to support a broad range of projects, with grants for charitable purposes normally ranging between £1,000 and £5,000. In the current \$106, signed for the period 2022-24, the Applicant commit to contributing £50,000 to the fund for every 10 million passengers per annum (ppa) based on published CAA passenger data for the preceding year. The upper limit currently stands at £300,000 for above 50 million ppa. The Applicant's annual contribution to the Community Trust peaked at £228,000 in 2020. There is SCC councillor representation on the Gatwick Airport Community Trust board of trustees. Grants are awarded annually, and priority categories are:
 - 1. Development of young people
 - 2. Art projects
 - 3. Sporting facilities
 - 4. Environmental improvement and conservation
 - 5. Improvements to community facilities
 - 6. Support for the elderly or disabled
 - 7. Encouragement of additional volunteering
- 15.12 The Trust also receives money raised through noise fines set by the Government on aircraft that infringe noise limits at the airport.
- 15.13 In addition, the Applicant also operates the discretionary and voluntary Gatwick Foundation Fund, which was launched in 2016. This fund also supports a range of community projects, with a focus on developing skills, improving health and wellbeing, raising aspirations and fighting social isolation and disadvantage. There are three rounds of funding annually. The fund is managed by the individual county Community Foundations. £300,000 is provided annually, split equally between Surrey, Sussex and Kent. Within

Surrey only projects within Mole Valley, Reigate and Banstead and Tandridge boundaries are eligible to apply for a grant. The fund relaunched in November 2022 following a pause during the pandemic.

Policy context

National

Airports National Policy Statement (2018)

- 15.14 Paragraph 4.4 states that in considering any proposed development, the Examining Authority and Secretary of State will take into account the potential benefits, including job creation, and any long term or wider benefits alongside the potential adverse impacts.
- 15.15 Paragraph 4.5 states that environmental, safety, social and economic benefits and adverse impacts will be considered at national, regional and local levels.
- 15.16 Paragraph 4.70 states that construction and the use of airport infrastructure can affect people's health, wellbeing and quality of life through traffic, noise, vibration, air quality and emissions, for example and paragraph 4.73 states the Applicant should identify measures to avoid, reduce or compensate for these impacts as appropriate.
- 15.17 Paragraph 5.240 states the Secretary of State expects the Applicant to provide an appropriate community compensation package, relevant to planning. This includes financial compensation to residents who will see their homes compulsorily acquired as well as financial compensation to the local community.
- 15.18 Paragraph 2.252 states that the Secretary of State will consider whether the Applicant has consulted on the details of a community compensation fund, including source of revenue, size and duration of fund, eligibility and how delivery will be ensued.
- 15.19 Paragraph 5.266 states that the Government expect the Applicant to maximise the employment and skills opportunities for local residents, including apprenticeships.
- 15.20 Paragraph 5.329 states that the Secretary of State recognises that, in addition to providing economic growth and employment opportunities, airport expansion will also have negative impacts on local communities.

National Policy Statement for National Networks (NPSNN) (December 2014)

15.21 The Government supports the delivery of national networks that meet the county's longterm needs, supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. The NPS para2.16 states that; 'Traffic congestion constrains the economy and impacts negatively on the quality of life.' 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 Framework (NPPF) (December 2023)

15.22 NPPF 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.

Regional

Coast to Capital Strategic Economic Plan 2018-2030 (SEP)

- 15.23 The Coast to Capital Local Enterprise Partnership (C2CLEP) encompasses East Surrey including Epsom and Ewell, Mole Valley, Reigate and Banstead Borough and Tandridge as well as Brighton & Hove, Croydon, the other Gatwick Diamond area authorities, Lewes and West Sussex. The LEP's Strategic Economic Plan 2018 2030 (SEP) states 'Our vision by 2030 is for our towns and cities to be known around the world as fantastic places to live, to grow and to succeed. We will become the most dynamic non-city region in England, centred around a highly successful Gatwick airport.'
- 15.24 The SEP has eight economic priorities including delivering prosperous urban centres, investing in sustainable growth, creating skills for the future and promoting better transport and mobility.
- 15.25 The SEP notes in its analysis of the business environment (Chapter 5, page 70) that wider business infrastructure has failed to keep pace with the growing expectations of investors and businesses, particularly those international businesses which might be looking to invest in the UK.
- 15.26 It states that no major new business parks have been built in the area since Manor Royal at Crawley in 1950. The SEP identifies that there are plans in place for similar developments in Horsham, Burgess Hill and in Horley but concludes that the area's business park capacity is significantly behind many other parts of the South-east.

Local

Surrey County

The Surrey Growth Plan (Economic Strategy Statement, November 2020)

- 15.27 The report sets out Surrey's economic priorities for the period to 2030, inviting partners in business, education and local government to work with the county to drive long-term economic growth. The overarching objective of the strategy is to 'grow a sustainable economy so everyone can benefit'.
- 15.28 The Growth Plan identified four key priorities (and associated Growth Propositions) to support Surrey's growth:

- 1. Growing the leading edge: supporting the growth of Surrey's innovation economy to include a new inward investment service
- 2. A 'whole place' approach to growing and sustaining quality places including a focus on town centres and continued improvements in transport infrastructure
- 3. Maximising opportunities within a balanced, inclusive economy including a coordinated approach to skills based on future employment need
- 4. Capturing the potential of a greener economy including support for low carbon and environmental goods and service sector

Mole Valley District Council

Adopted Mole Valley Local Plan

- 15.29 The currently adopted Local Plan (2000) sets the economic strategy of the time through Policy E1: Existing Industrial and Commercial Land Uses, which commits to the maintenance and renewal of Mole Valley's economy through encouraging the re-use of suitably located land in built-up areas already in industrial and commercial use.
- 15.30 Suitably located industrial and commercial land is identified under Policy E2: Safeguarding Existing Industrial and Commercial Land and applicable sites within Dorking and Leatherhead. It also has regard to smaller sites where they are located on parts of the highway network where traffic can be satisfactorily absorbed and served by public transport and where any development would not harm the character or amenity of the area.
- 15.31 Policy E4: Redevelopment of Sites for Industrial and Storage or Distribution Uses, gives particular encouragement to the provision of suitably absorbed accommodation for light industrial and general industrial uses, and storage and distribution, within particular locations in Dorking and Leatherhead.
- 15.32 Policy E6: Sites for Small Firms, encourages the redevelopment of suitably located sites for the purposes of supporting small firms to ensure these are not lost.
- 15.33 The Core Strategy (2009) Policy CS12: Sustainable Economic Development, supports the sustainable growth of the District's economy through the provision of a flexible supply of land to meet the varying needs of the economic sectors. This includes encouraging mixed use development, supporting development which maintains and enhances Leatherhead's role as a desirable location for knowledge-based companies and Dorking as a town with a strong service sector.
- 15.34 Policy CS12 also commits the Council to working with partners and supporting initiatives and development which assists in improving the skills base of local residents especially in those localities where there is a significant disparity in the skills of residents and the types of local job opportunities available.

Future Mole Valley Local Plan

15.35 Policy S1: Sustainable Mole Valley, sets the economic strategy to safeguard current commercial and industrial land. This accords with the Strategic Objectives 4 – 6 which are to ensure that the District's existing and new businesses flourish, to attract well-paying

business and to ensure that appropriate economic activity, large or small, has the conditions to grow.

- 15.36 The Council's Economic Development Needs Assessment (2020) identified no significant additional floorspace requirements for office or industrial land uses but noted that some of the current campus style office premises were outdated and not fit for purpose. As such, the Local Plan (2018-2033) has been prepared on the basis that no new employment or business floorspace is required and will re-examine this position at the Plan review stage.
- 15.37 Policies EC1: Supporting the Economy, EC2: Employment and Business Development, EC3: The Urban Economy, EC4: The Rural Economy and work to protect existing employment land and guide economic related development where it happens.

Mole Valley District Council Economic Prosperity Strategy (2018-2028)

- 15.38 In July 2018, the Mole Valley Economic Prosperity Strategy (EPS) (2018-2028) was adopted, its vision that: "By 2028, Mole Valley will be widely recognised as a prime business location which attracts the most creative and innovative talent. An environment that is vibrant, optimistic, enterprising and productive; enabling businesses to thrive and achieve their aspirations together whilst offering a great quality of life and beautiful countryside."
- 15.39 The EPS reflects the issues and challenges facing Mole Valley's business and wider community over the ten-year period to 2028 and recognises that success can only be achieved through effective partnership working with the district's business community and partner organisations which includes the Gatwick Diamond.

Reigate and Banstead Borough Council

Local Plan

15.40 The Reigate and Banstead Core Strategy objective SO19 seeks to ensure the right amount, range, size and type of commercial areas are available and that necessary infrastructure and facilities are provided to support a level of economic growth compatible with protecting the environment. Policy CS5 Valued People and economic development together with Policy CS8 set the context for economic development and the amount to be delivered in different locations in the borough. DMP Policies EMP1-4 are mainly concerned with protecting different types of employment use and where loss can be justified. Policy EMP5: Local skills and training opportunities seeks a minimum of 20% of the jobs created by the construction of new development in the borough should be targeted at residents or apprenticeships. The HOR9 Horley Strategic Business Park (HSBP) was identified as a location for new business development. This was supported by the Coast to Capital Local Enterprise Partnership. No alternative sites were identified in Reigate and Banstead which could deliver strategic employment floorspace in the short to medium term (Figure 15.1).

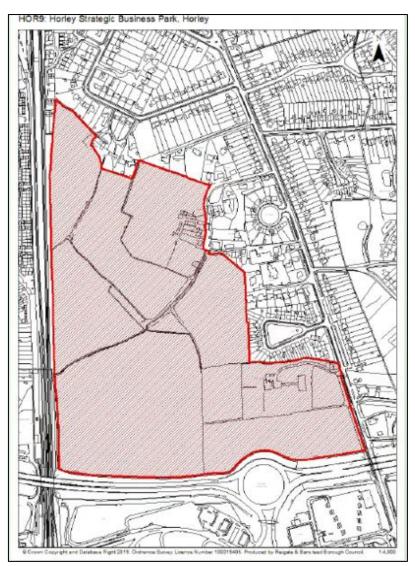


Figure 15.1 Horley Strategic Business Park HOR9 Site Allocation

- 15.41 Policy HOR9 sees the predominant use of the site should be for B1a purposes with limited B1b, B1c, B8 and non-B class uses. In addition, complimentary uses could include on-site catering, limited retail provision, hotel and conference centre, crèche and gym. At least 5ha to the north of the 31ha site is to be a high-quality public park open space, including parkland and outdoor sports facilities. The scheme would be predominantly accessed via a new dedicated access onto the strategic road network (M23 spur) at the South Terminal Roundabout. A secondary access onto Balcombe Road for use by emergency service vehicles, public transport and other sustainable transport modes would be provided. The reasons for this proposal was:
 - A highly visible centre for business and innovation in the local area
 - Specialised modern property and facilities for business, and
 - The creation of flexible space to support new businesses to start and grow-on within the same facility.
- 15.42 DMP Policy HOR9 supporting text at paragraph 3.3.167 states that the HSBP should be:

- up to 200,000 sq.m of predominantly B1(a) accommodation with limited B1b, B1c, B8 and non-B class uses including appropriate airport-related Sui Generis uses; and
- up to 10,500 sq.m of complementary community facilities including A1 (predominantly convenience retail), A3, D1 and/or D2 uses.
- 15.43 DMP Policy INF1 states that; 'The Council will require timely provision of infrastructure to support a particular development and/ or to mitigate any negative impacts that would otherwise result from the development.

Draft Horley Strategic Business Park Supplementary Planning Document

15.44 Significant work has been undertaken in preparing the draft Horley Strategic Business Park SPD by RBBC. This has included a massing study and updated Needs and Viability Assessment which was presented to the Council's Executive in March 2022. However, this work was subsequently paused due to a combination of factors including the proposed works compound to the north of the South Terminal Roundabout (Site T1) associated with the draft DCO application and the felling of a significant number of trees by one of the members of the Joint Venture which attracted a Forestry Commission restocking order which culminated in the former partner selling their site in 2023 to another party (not involved in the draft DCO application). The Joint Venture was subsequently dismantled in 2023 with the respective landowners keen to progress proposals for the Business Park but with plans on hold pending the outcome of the DCO.

Reigate and Banstead Borough Council Economic Framework (2021-2026)

- 15.45 The Economic Objective is to maintain the economic prosperity of the borough, based on the Government's Build Back Better Plan three pillars infrastructure, skills and innovation.
- 15.46 This would be achieved by:
 - future proofing our towns and villages,
 - support for start-ups and microbusinesses,
 - facilitating networking,
 - working with large employers and support them to maintain a local presence, employ local workers, build stronger relationships with local education and skills providers and support apprenticeship schemes,
 - Work with businesses and other organisations to make the borough a more attractive location for residents and visitors to live, work and spend time, and
 - Work with local interest groups to enhance the environment in our towns and village centres and improve services for visitors and local businesses.

Tandridge District Council

<u>Local Plan</u>

15.47 TCS Policy CSP 22 relates to the economy and the policy seeks to make the best use of existing commercial and industrial sites, allows buildings in the Green Belt subject to requirements

and this will now also need to be in line with the requirements of the latest version of the Government's NPPF.

Construction Phase Impacts

Positive

15.48 There should be positive impacts, but the JSCs 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

- 15.49 Job creation during the construction phase will be a benefit of the Project, though the JSCs are of the view that job creation presents a range of related issues that should be considered.
- 15.50 The JSCs 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, together 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 and 2032 is estimated to be around 1320; in the interim assessment year (2032), the peak construction workforce between 2033 and 38 is estimated to be around 450 workers.
- 15.51 Overall, however, the benefits of employment generation on the project have been overestimated. While we 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 worse-case.
- 15.52 In appendix 17.6.1 Socio economic data table 3.1.1 (APP-197) the Applicant has considered these workers in terms of Home Based (HB) and Not Home Based (NHB). Two scenarios have been tested Scenario 1 Output 80% HB workers and 20% NHB. A second scenario considers 100% HB workers. In Scenario 1 Surrey Authorities would account for the following:

Figure 15.2: Gatwick Northern Runway Project Construction Workforce Impacts in Surrey Scenario 1

Local Authority	HB Workers	NHB workers	Total Workers
Reigate and Banstead	137	110	247
Mole Valley	33	10	43
Tandridge	31	4	35
Rest of Surrey	66	2	68
Total Surrey	267	126	393

Local Authority	HB Workers	NHB workers	Total Workers
Reigate and Banstead	171	0	171
Mole Valley	42	0	42
Tandridge	40	0	40
Rest of Surrey	90	0	90
Total Surrey	335	0	335

Figure 15.3 Gatwick Northern Runway Project Construction Workforce Impacts in Surrey
Scenario 2

- 15.53 The workforce requirements therefore appear relatively modest within Surrey.
- 15.54 Furthermore, the magnitude criteria (job ranges) used to assess the impact of construction employment appears to be arbitrary and simplified given it is applied across all study areas which doesn't 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 isn't correct. The Applicant has calculated 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.
- 15.55 On this basis, the JSCs question the ES 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).
- 15.56 Appendix 17.8.1 (APP-198) provides an Employment, Skills and Business Strategy (ESBS) which states how Gatwick Airport Limited (GAL) would maximise economic benefits for communities and businesses generated by the Project. This is proposed to be delivered through an ESBS Implementation Plan secured via the S106 agreement. Whilst it is welcomed that an outline strategy has been provided, it is very high level. The JSCs are clear that it must be in place for the construction phase to maximise benefits. Further thoughts on the ESBS are discussed further within the Mitigations section.

Population and community cohesion

15.57 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.

Negative

Impact on delivery of Horley Business Park

15.58 It is noticeable that the Socio-Economic Chapter is virtually silent on the proposed Horley Strategic Business Park (HSBP). The development of the Business Park will be hindered by the location of the South Terminal Works Compound (T1 Reigate Field) and a new ransom

strip. The works compound will have access onto the South Terminal Roundabout and a separate route to Balcombe Road. Neither of these routes would facilitate access to the allocated Business Park site. Furthermore, due to a higher flood risk to the north of the business park site, development would need to be delivered in the south of the site which coincidently matches the northern perimeter of the Works Compound T1. The lack of an access route to the allocated site from the South Terminal roundabout and proximity of the works compound to the future development site runs contrary to RBBC DMP Policy HOR9. Indeed, ES Chapter 3 Alternatives Considered (APP-028) is silent on the site allocation HOR9. Even without the access concerns, the land take and visual/environmental impacts associated with a works compound in proximity to, and at the main entrance to, a prestige business park would negatively impact perceptions and demands such that the two are incompatible.

- 15.59 The dDCO identifies land at the site that will be required both on a temporary and, in some cases, permanent basis to accommodate the Project (including for an attenuation pond). The project will significantly impact on the future development of the Horley Business Park, notably in that it will create a ransom strip over which the access road will need to be delivered. Further detail is provided in the Written Representation by SCC as impacted landowner.
- 15.60 Work carried out by Chilmark (2021 contained in Appendix D of this report) for Reigate and Banstead reviewed the development requirements in the wake of Brexit, Covid and increased take up of remote working by the workforce. The report confirmed that there was a continued need for the Horley Strategic Business Park. In terms of meeting floorspace needs 118,000 square metres of office floor space has been identified and an additional 10,500 square metres of ancillary space. The scheme could support an additional 10,000 FTE jobs plus 2,000 construction jobs through to 2040. The HSBP employment forecasts would therefore exceed the employment growth created by the airport expansion (without the Northern Runway) and the growth on airport associated with the Northern Runway DCO application.
- 15.61 The business park would meet a sub-regional need for additional business floorspace at a time when many offices have been converted into residential properties under the prior approval process. The development would result in additional spending in nearby Horley, mainly on convenience goods. However, the presence of the South Terminal Works compound T1 would mean that the opportunity to develop a new strategic business park to support growth in the area is hindered, along with the associated jobs growth and increase in GDP. This also means that delivery of the Horley Town Park in the north of the site would be impacted as the HSBP would fund the Town Park.
- 15.62 The HSBP is in a sustainable location, close to Gatwick Railway Station, Gatwick Airport, and Horley Town Centre. Whilst there would be synergies between the HSBP and Gatwick Airport, the business park would be providing a sub-regional centre for business including grade-A office stock among other development types which would be supporting businesses from a wider range of sectors and activities including aviation.
- 15.63 The JSCs wish to see the South Terminal Works Compound removed from the Project and alternative means used to construct/service the relevant highway works.

Labour market (availability of construction labour)

- 15.64 Chapter 17: Socio-economics of the Environmental Statement (APP-042) 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 JSCs disagree with the findings of this assessment.
- 15.65 The sensitivity for the Local Study Area is assessed as medium which given the small size of the construction labour market would appear to be incorrect and should be graded as high. 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.
- 15.66 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 are applicable across both housing and infrastructure development so it is unlikely all of these 115 would be available to work on the Project. There are potential overlaps with other major infrastructure projects such as Lower Thames Crossing which will generate demand for a construction workforce.
- 15.67 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 to assess using latest and most reliable information, which is now the 2021 Census.
- 15.68 ES Appendix 17.9.3: Assessment of Population and Housing Effects (APP-201) Paragraph 5.2.14 states that the Project is only expected to be a determinant in whether there is labour shortfall or surplus in the HMA for one area (Croydon and East Surrey) where the Project tips surplus into supply in a single year. 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.

15.69 As referenced above, 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 and 20% as Non Home Based which is based 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 construction workers doesn't appear to be very realistic in practice or indeed a worse case approach. Given this, we believe the Applicant should revisit their approach.

Housing supply (temporary accommodation)

- 15.70 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, we believe there are potentially significant effects on temporary accommodation at the LMA and FEMA level and have concerns with the Applicants' 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 simplified 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.
- 15.71 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 of ES Appendix 17.9.3 Assessment of Population and Housing Effects (APP-201) provides details of allocation of NHB workers by local authority vs supply of private rental sector beds. Table 6-5 presents PRS bed supply for 2021 by local authority but it isn't clear how these figures have been derived given Paragraph 3.5.2 advised the data on bedrooms was gathered from the 2011 Census. 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 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.
- 15.72 In paragraph 6.2.3-6.2.4 of the of 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 nonhome based workers. There is no analysis of why these properties are vacant, length of time vacant and barriers bringing them back into use. A more robust assessment of the private rental market is required.

- 15.73 Reigate and Banstead remain concerned that the housing need during the construction period has taken a narrow view and misses one key consideration namely the impacts of an increase in low paid workers during construction on the availability of the cheapest accommodation in Horley and extending to Redhill. There is a great deal of demand and therefore competition for the very cheapest rooms in HMOs already, and costs are increasing. More single people are seeking assistance from the Council. There has been a steady increase in numbers from 329 approaches in 2021, 413 approaches in 2022 and 505 approaches in 2023. Of these approaches the number of single people owed a homelessness duty by the Council has also risen from 117 in 2021, 144 in 2022 and 145 in 2023.
- 15.74 The Council is assisting more single people to secure private rented housing and providing financial support to secure accommodation. This already becoming a greater challenge and the addition of a temporary workforce will further negatively impact this reducing the amount of the cheapest affordable housing for those in need.
- 15.75 For Mole Valley, due to the higher cost of accommodation in the district, it is likely that those workers in search of accommodation would look elsewhere, namely in Reigate and Banstead and Crawley thus perpetuating the pressures on those areas. Where workers are able and do locate to Mole Valley, this will utilise the already very limited HMO spaces that exist in the district with consequential effects for local communities in need. Tandridge District Council has a similar view.

Disruption

- 15.76 Chapter 17: Socio-economics of the Environmental Statement (APP-042) considers the potential for the construction works to disrupt existing residents and businesses, and finds minor adverse effects albeit only for the LSA and not for the wider study areas. This is based on the findings of Chapter 12: Traffic and Transport relating to construction traffic, and the findings of Chapter 14: Noise and Vibration relating to daytime and night-time effects on residential properties.
- 15.77 The JSCs do not agree that the impact is minor. The Planning Statement (APP-245) Table 4.4 Indicative Sequencing of Construction Works page 80 shows when different elements of the scheme will be under construction. Based on the years provided in the table, which will need revisiting should the project proceed, it would suggest that initial clearance and diversion works would take place for 5 years 2024-2029. This would then overlap with the surface access improvements between 2028 and 2032. This latter period will be the most disruptive for local communities and businesses and will include periods when bridge works will see the closure of roads and railway lines at weekends and significantly longer for some public footpaths. It is noticeable that the removal of the temporary construction compounds will take place in 2034 and completion of the project in 2035 a period of 11 years. At the start of the works there will be c45m passengers using the airport, by 2028 this is forecast to have risen to 60m and by 2032, (completion of surface access works), c70m. Even allowing for greater modal shift to public transport it would still result in an increase in road vehicle movements during the construction phase. These figures are based on ES Appendix 4.3.1 Forecast data Book (APP-905) Annex 2 Slower Growth Sensitivity Case

Table A2.2.1: Passenger Forecast Comparisons. The result will be increased delays for local communities and businesses including ones not associated directly with the airport.

- 15.78 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 and as such it is assessed that short-term, moderate adverse impacts would occur in the LSA.
- 15.79 Chapter 17: Socio-economics of the Environmental Statement (APP-042) finds minor adverse (not significant) adverse effects on community facilities and services from the temporary construction workforce in the LSA.
- 15.80 Reigate and Banstead are about to start a light refresh to the Horley Community Centre. However, the Council recognises that further improvements will be required due to the ageing nature of the building stock and need to make community facilities more sustainable. Horley residents and those accessing the Horley area will be adversely impacted by the surface access works, loss of Church Meadows and damage to Riverside Gardens Park associated with the surface access works and the longer-term environmental impacts of the scheme. Due to the significant level of inconvenience Horley residents and others will experience as a result of these works, a significant contribution will be sought from the Applicant towards the cost of improving existing community facilities in Horley.

Operation Phase Impacts

Positive

- 15.81 There should be significant positive impacts, but the JSCs are not clear as to how these will be captured locally. Chapter 17 Socio-economics of the Environmental Statement (APP-042) quantifies the operational phase employment benefits of the Project. The chapter reports significant beneficial effects associated with both direct on-site jobs, and indirect, indirect, induced and catalytic employment. The JSCs 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 JSCs are also concerned about the methodology used to assess catalytic employment and GVA benefits of the Project (as set out in Appendix B)
- 15.82 In 2023 there were approximately 27,000 people working at Gatwick Airport. The NRP proposes to result in significant employment growth at different stages of the project's implementation. The increase in employment associated with use of the Northern Runway has been considered in the Environmental Statement's Assessment of Population and Housing Effects and has defined a study area covering 17 authorities. This incorporates the 14 local authorities in the Labour Market Area ("LMA") from which Gatwick currently draws the majority of its operational workforce and can be expected to do so in the future as well as a further three authorities.
- 15.83 The promoter's assessment disaggregates the additional employment to local authority level estimates on the basis of the residency of on-site employees for direct and induced jobs, the job location using distribution of GVA for indirect jobs and job location using the

percentage of passengers departing from Gatwick originating from each local authority for catalytic jobs.

- 15.84 Utilising this approach, the Table below gives Reigate and Banstead as an example and shows that over the long-term forecast period, the routine use of the Northern Runway could lead to an additional 826 jobs in Reigate and Banstead over and above the baseline, at the point of its peak in 2032.
- 15.85 As referenced we are concerned that the catalytic modelling could be overly optimistic in what is already a mature economic area. In the case of the Surrey authorities, it ignores the impacts of more growth from London. Historically Surrey and in particularly northern Surrey with its excellent transport links into London has been an important exporter of workers to London. Many of the jobs undertaken in London by workers living in Surrey require very high skill sets with significant rewards. It is not clear why and who would be creating such catalytic growth in Surrey when there continue to be high quality jobs and opportunities in London. Other sectors could grow which have no dependency on the Gatwick DCO proposal. For example, the Care Sector will continue to grow as a result of an ageing population in Surrey

Reigate and Banstead	2029	2032	2038	2047
Direct	75	241	245	236
Indirect	38	119	123	118
Induced	39	124	127	123
Catalytic	112	342	323	293
Total Jobs	263	826	817	770

Table 15.4 Increase in Total Employment Associated with Northern Runway

Source: Gatwick Airport Environmental Statement, Appendix 17.9.3, Table 3.1.2 (APP-201)

- 15.86 In Mole Valley 43.1% of residents are qualified to NVQ Level 4 and above. 83.9% of the population in Mole Valley are considered to be economically active with 1,876 residents unemployed. Of those unemployed 12.5% are in full time education. As such, the employment levels within the district are strong and there is an available skills pool from which Gatwick and other local businesses can draw. However, Travel to Work Data (ONS, 2016) shows that there is significant out-commuting of residents principally to R&B, Guildford and London.
- 15.87 As such, Gatwick airport offers limited economic benefits for the district with only around 420 residents either directly or indirectly employed by the airport, which is less than <1% of those who are economically active (Nomisweb (Jan 2021)). While there are employment areas within proximity to Gatwick (e.g. Gatwick Business Park, Hookwood) and there are wider strategic and economic benefits which warrant the support of the airport as an economic hub, the majority of the districts employment needs are met by locations outside of the district, or within the larger settlements of Dorking and Leatherhead.
- 15.88 Table 3.1.3 of the ES [APP-201] suggests that 299 jobs would arise as a result of the scheme by 2047 and while it is accepted that this is a low number, without intervention and a focused employment initiative from the Airport, it is not disproportionate to the current employment offer for MV.

15.89 The JSCs do have concerns that the Applicant has overestimated the positive impacts of the Project. This is discussed further within the negative impacts section below. Increasing jobs at the airport should result in benefits to the local economy and the local population. However, many of the new jobs at the airport will be low-skilled, and it is important that all opportunities are exploited to raise local aspiration and achievement locally, and to increase social mobility. 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 referenced already this lacks specific detail.

Neutral

15.90 Community cohesion effects are found to be negligible and the JSCs agree that there are some neutral impacts.

Negative

- 15.91 Chapter 17: Socio-economics of the Environmental Statement (APP-042) finds there to be beneficial labour market effects during the operational phase, including significant beneficial effects during for the LSA and the FEMA in the 2032, 2038 and 2047 operational assessment scenarios. However, 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 low-skilled sectors (where Gatwick in the past has tended to pay higher wages than local businesses) and could mean local businesses face a struggle to find staff.
- 15.92 For this reason, the Applicant should undertake local impact analysis as part of the Socioeconomic assessment to understand the potential labour shortages existing in local authority areas in the FEMA.

Affordable Housing

- 15.93 Chapter 17: Socio-economics of the Environmental Statement (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. 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.
- 15.94 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 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 a 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.

Disruption

- 15.95 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.
- 15.96 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

- 15.97 Chapter 17 of the ES (Table 17.8.1 Mitigation and Enhancement Measures) (APP-042) refers to the Employment, Skills and Business Strategy (Appendix 17.81 (APP-198)), which sets out how the Applicant would maximise economic benefits for communities and businesses generated by the proposal 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:
 - 1. Inspire and Motivate;
 - 2. Construction;
 - 3. Employment and Skills (non-construction);
 - 4. Adding Value through Procurement;
 - 5. Innovation; and
 - 6. Regional Promotion.
- 15.98 Chapter 17: Socio-economics of the Environmental Statement (APP-042) categorises the ESBS as Enhancement rather than Mitigation. We would describe it as Mitigation, given the concerns we have expressed above regarding potential adverse labour market effects, and barriers to local, low-skilled people accessing employment.
- 15.99 ES Appendix 17.8.1: Employment, Skills and Business Strategy (APP-198) 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 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.

- 15.100 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 baseline information provided in the strategy which explains the current issues affecting the different local authorities from an employment, skills and business perspective which means it is difficult to conclude whether the options set out are appropriate. The Applicant, as part of ESBS, should provide more detail 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.
- 15.101 The Applicant should also provide some details on performance, financial management, monitoring and reporting in the ESBS which can be developed further as part of an Implementation Plan. The ESBS provides no explanation as to how it would differentiate between the provision and outputs offered through the DCO vs. provision and outputs offered in a 'Business as Usual' scenario. The ESBS is based upon on what could be done/achieved and not what will. The strategy is not supported by clear costings or resourcing considerations, which again lessens confidence that the outputs are achievable.
- 15.102 The JSCs 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; apprenticeships; promotion of inward investment and development of the visitor economy. It is acknowledged that some of these 'Asks' may be covered within the ESBS, but until the implementation Plan has been developed/made available, this cannot be confirmed. There is more work to be done by GAL and stakeholders to confirm the preferred activities to be included within the Implementation Plan.
- 15.103 There are currently a number of gaps. Whilst support for vulnerable groups is identified, the document is very light on the specific support that would be provided. The baseline should aim to identify specific minority and/or marginalised groups of people and communities as well as pockets of deprivation so that these areas can be targeted, where possible to maximise economic and skill benefits on a county and regional basis and beyond. Similarly, whilst we understand that Gatwick works with Ex-Forces, it would be useful if the ESBS identified the support it would be offering.
- 15.104 Whilst we appreciate the support Gatwick provides to local communities on developing skills and working with schools, the JSCs would like to understand how this is to develop further. For example, it would be useful if the ESBS provided a more long-term direction for the STEM centre that recently opened and how it will respond to the growth proposed by

the Applicant's scheme. Furthermore, little is included in the ESBS on how the application would work with other local education and skills providers including local colleges.

- 15.105 Strategic engagement between the Applicant and JSCs is crucial to support Surrey in realising opportunities for the local population, supply chain and economy.
- 15.106 The local authorities received an initial draft of the S106 in early February 2024 which included details on the funding for the ESBS. Questions have been posed to the Applicant around how the total figure to be made available for the ESBS has been calculated in relation to the measures being proposed. It is also unclear how the fund relates to the Implementation Plan.
- 15.107 There are also other specific required mitigations relevant to the socio-economic effects of the project.
- 15.108 The Authorities agree that the creation of the Gatwick Community Fund will be imperative to mitigate the intangible and residual impacts of the Authorised Development, and the continued operation of the Airport which would not be mitigated through other obligations and requirements. The local authorities received an initial draft of the S106 in early February 2024 which included details on the Community Fund. We have yet to comment on detailed drafting and a number of initial questions have been posed to the Applicant relating to:
 - How the proposed figure has been arrived at (the total of the fund proposed is considered insufficient)
 - How the fund is to be distributed the JSCs consider it should better reflect the areas most impacted
 - Prioritised projects
 - Detail on the consultation that has taken place to date relating to the Community Fund
- 15.109 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 S106 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. The JSCs do not consider that such a fund will be proportionate to the environmental harm caused by the expansion of the airport, nor sufficient to make a difference in the communities impacted, 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.
- 15.110 In response to the concerns raised by the local authorities collectively, a Housing Fund is requested to address impacts on availability of affordable housing in particular.
- 15.111 Due to the significant level of inconvenience Horley residents in particular will experience as a result of lengthy construction works, a contribution will be sought from the Applicant towards the cost of improving existing community facilities in Horley.

Requirements and obligations

Summa	Summary of impacts – Socio economic					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
SE1	Availability of construction labour	C	Negative	ESBS and Implementation Plan to be informed by a robust assessment of construction job skills shortages and then set clear and measurable actions clearly set out Implementation Plan.	ANPS	
SE2	South Terminal Works Compound hinders development of Horley Strategic Business Park	C	Negative	Relocate South Terminal Works Compound (T1 Reigate Field) to alternative location such as T3	RBBC DMP Policy HOR9	
SE3	Lack of detail in ESBS. Further detail required on: -Local procurement strategy -Apprenticeship Scheme -Scheme for students -Outreach Programme	C/O	Negative	Updated ESBS to be provided, including detail on areas currently lacking.	ANPS	
SE4	Uncertainty in relation to delivery of benefits	C/O	Negative	ESBS Implementation Plan will need to be submitted for approval (and Steering Group established) at least [6 months] prior to commencement to allow for approval of the plan in sufficient time.	ANPS	

Summa	Summary of impacts – Socio economic						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
SE5	Impact on availability of affordable housing	C	Negative	The Applicant to confirm offer in terms of housing fund (or other offer) considering evidence presented by Authorities.	R&BBC INF1		
SE6	Proposed Community Fund inadequate	C/O	Negative	The Applicant to revise Community Fund proposals within draft S106	ANPS		
SE7	Impact on local communities as a result of the construction phase of the surface access works and their longevity	C	Negative	Contribution to improving local community facilities in Horley	RBBC Policy CS5		
SE8	Concern that what is being proposed within the ESBS may not be additional to existing activities in this area	C/O	Negative	Updated ESBS to clarify additionality of proposals	ANPS		
SE9	Training being provided by the Applicant needs to be accessible.	C/O	Positive	Travel fund to support young people, those receiving income and incapacity support benefits, ex-forces and those returning to work to access Gatwick funded training programmes for Surrey residents	RBBC Core Strategy Policy CS5		

16. Health and Wellbeing

Current Context

- 16.1 There are pockets of deprivation within the county and the Surrey Health and Well-being Strategy, refreshed in 2022 following the pandemic, identifies a number of 'key neighbourhoods' for initial focus, based on the 2019 Index of Multiple Deprivation's rankings. These are geographic areas which experience the poorest health outcomes in Surrey.
- 16.2 In close proximity to Gatwick, ranked 13th in the prioritised list of key neighbourhoods is Horley Central and South in Reigate and Banstead. Key indicators in which the area scores poorly are income, employment and education, skills and training. Notably 28% of people in this area have no qualifications compared with 16% across Surrey and 19% of children are in relative low-income families compared with 9% across Surrey. 26% households have no car, compared with 13% across Surrey, highlighting the importance of the issue of access and transport in the area. 21% of people have a limiting long-term illness in the area, compared with 14% across Surrey.
- 16.3 In 2020, the latest year available before fuel price increases associated with the Ukraine War, 11.9% of the Horley Central population were in fuel poverty compared with 5.9% for other Surrey authorities. This is likely to have risen in recent years. 16.7% of children in Horley Central are in absolute low-income families compared with 7.7% in Surrey and 15.4% in England.
- 16.4 In terms of disease prevalence, obesity in Horley Central at 11.8% is above the 7.4% Surrey average and diabetes at 7.4% compared with 5.8% for Surrey.
- 16.5 In Mole Valley, health is generally very good, with 52.6% (45,952) of residents in very good health (Census, 2021). None of the communities in proximity to the airport are listed in the Health and Wellbeing Strategy (2022) as being a key neighbourhood, although Dorking South, is ranked 6th on the list, falling just outside of the initial 5 priority areas.
- 16.6 Overall walking and cycling to Gatwick Airport by staff is very limited. Yet a sizeable local workforce is located within Surrey.
- 16.7 Poor air quality is a significant public health issue. Further detail on local issues is provided in the Air Quality Chapter 11. Health effects can also be attributable to noise and details on the local noise environment are provided at Chapter 12.

Policy context

National

Airports National Policy Statement (ANPS) (2018)

16.8 The ANPS acknowledges that the construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life. It continues that new or

enhanced airports infrastructure may also have indirect health impacts, both negatively in terms of use of open space or positively from increased employment opportunities.

16.9 The Applicant should identify measures to avoid, reduce or compensate for adverse health impacts and the ExA should consider the cumulative impact on health.

National Policy Statement for National Networks (NPSNN) (December 2014)

16.10 The NPS considers at para 4.4 that; 'Environmental, safety, social and economic benefits and adverse impacts, should be considered as national, regional, and local levels.' It is noted at para 4.79 that 'National road....have the potential to affect the health, well -being and quality of life of the population. They 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.' Environmental statements should identify and set out the assessment of any likely significant adverse impacts. Paragraph 4.82 requires the Applicant to; 'identify measures to avoid, reduce or compensate for adverse health impacts as appropriate.'

National Planning Policy Framework (NPPF) (December 2023)

16.11 Under Chapter 8, Promoting healthy and safe communities, paragraph 96 highlights that planning decisions should aim to achieve healthy, inclusive and safe places. This includes enabling and supporting healthy lifestyles and ensuring schemes are safe and accessible. Planning decisions should take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community.

Local Plans

Mole Valley District Council

Adopted Mole Valley Local Plan

- 16.12 One of the strategic aims of the Council's Core Strategy (2009) is to meet the needs and aspirations of the local community while safeguarding and enhancing the natural, built and historic environment to ensure the community's way of life, health and well-being are enhanced rather than harmed.
- 16.13 Policy CS16: Open Space, Sports and Recreation Facilities requires that open space, sports and recreation facilities will be safeguarded from development. It also states that all development, except for the most minor, will be expected to contribute to the continued greening of the District's towns and villages and the provision of, or connections to, the network of green infrastructure e.g. through the use of landscaping, retention of important mature trees, hedges, use of some forms of SUDs for example.

Future Mole Valley Local Plan

16.14 The emerging Local Plan (2018-2033) recognises the importance of a wide-range of community and cultural facilities as they contribute to the well-being and quality of life of residents. Facilities or services for the community can include, but are not limited to, community / village halls or buildings, cultural facilities, places of worship, pubs and statutory services such as health and education. Policy INF4: Community Facilities

addresses this and sets out the requirements for provision and retention of community facilities in the district.

- 16.15 In addition, policies S1: Sustainable Mole Valley, EN12: Pollution Control, H6: Housing for Older Persons and Specialist Housing and various land allocations, including DS41: Land West of Reigate Road, Hookwood, all set requirements and provision which address the wide-ranging need and facets contributing to health and wellbeing.
- Policies relating to biodiversity, landscape and other environmental factors, all of which are related to the health and wellbeing of communities, employees and the natural form of Mole Valley, also exist and in many cases are detailed against other matters relevant to the DCO in this LIR. These policies include: S2: Combatting the Climate Emergency, S5: Retaining and Investing in Natural Capital, H10: Standards for Accessibility, Water and Space, EC5: Sustainable Leisure and Tourism, EC6: Agriculture, Horticulture and Forestry, EN4: Design and Character, EN5: Inclusive Environments, EN8: Landscape Character, EN9: Natural Assets, EN10: Open Space and Play Space, EN11: Local Green Space, EN13: Standards and Targets for Combatting the Climate Emergency, INF1: Transport INF2: Parking, INF3: Flood Risk, INF4: Community Facilities, INF6: Gatwick Airport.

Reigate and Banstead Borough Council

Local Plan

- 16.17 Core Strategy Policy CS5 Valued People and Economic Development considers that the Council will:
 - Work with partners such as Surrey County Council, health providers and neighbouring authorities to deliver improved health facilities and access to healthier lifestyles; and
 - 2. Work with partners, such as Surrey County Council, skills providers including East Surrey College and neighbouring authorities to promote and deliver improved education facilities and increased education opportunities including support for identifying and developing vocational and skills improvement facilities in the borough.
- 16.18 This policy will be implemented through [amongst others] partnership working with Surrey County Council, through the Public Sector Board, and with health and education providers, to deliver the Surrey Partnership Plan and other shared strategic priorities.
- 16.19 DMP Policy DES 9 Pollution and contaminated land: The policy applies borough-wide, although particular attention should be paid within the following designated areas:
 - Air Quality Management Areas
 - Noise contours associated with Gatwick Airport.
- 16.20 For all types of development, across the Borough:
 - a. Development will only be permitted where it can be demonstrated that (on its own or cumulatively) it will not result in a significant adverse or unacceptable impact on the natural or built environment (including sensitive habitats); amenity; or health and safety due to fumes, smoke, steam, dust, noise, vibration, smell, light or any

other form of air, land, water or soil pollution. Where there would be potential adverse effects from pollution and adequate mitigation cannot be provided, development will not normally be permitted. This includes pollution from construction and pollution predicted to arise during the life of the development. Particular attention should be paid to development within Air Quality Management Areas.

- b. New development will not normally be permitted where existing fumes, smoke, steam, dust, noise, vibration, smell, light or any other form of air, land, water or soil pollution are unacceptable and there is no reasonable prospect that these can be mitigated against to satisfactory levels. This is particularly relevant for sensitive development such as residential.
- c. Where a site is known to be contaminated, or where there is a reasonable possibility of contamination, appropriate investigation, and where necessary mitigation and/or remediation will be required.
- d. Measures to reduce air pollution will be encouraged.
- 16.21 Within areas of poor air quality (as defined by the presence of Air Quality Management Areas) development must be designed to minimise the occupants' or users' exposure to air pollution, both internally and externally.
- 16.22 In areas near Gatwick Airport, residential development will be permitted where it can be demonstrated that the noise levels will not have a significant adverse effect on the proposed development. Proposals for residential development on sites falling within the 57 dB LAeq (07:00 to 23:00) or 48 dB LAeq (23:00 to 07:00) noise contours for Gatwick Airport must:
 - a. Be accompanied by a full noise impact assessment.
 - b. Demonstrate that, through satisfactory design, mitigation and/or attenuation measures, future occupants would not be subject to unacceptable noise disturbance both within buildings and externally.
- 16.23 DMP Policy OSR1 Urban Open Space explanation notes that; 'Urban Open Spaces make an important contribution to the environmental quality of the borough. Such spaces are an important part of the green fabric of the borough, often fulfilling multiple purposes.' Paragraph 2 of Policy OSR1 Urban Space states; 'Any other development which would result in the full or partial loss of designated Urban Open Space will only be permitted in exceptional circumstances, where any loss of openness resulting from the proposed development would have an adverse effect on local character, visual amenity or ecological value; and at paragraph b 'Provision is made for appropriate and suitably located replacement open spaces should be located as close to the lost open space. '

Tandridge District Council

Local Plan

16.24 Policy DP22 Minimising Contamination, Hazards and Pollution provides policy for development in relation to noise, air pollution and contamination.

Surrey Wide

The Surrey Health and Well-Being Strategy – update 2022

- 16.25 The strategy recognises the need for more collaborative and creative work with those communities in the geographic areas of deprivation with the poorest health outcomes. The strategy also focuses on reducing health inequalities and delivering outcomes within Surrey's priority populations communities of identity and geography which are often overlooked and currently most at risk of experiencing poor health outcomes. The strategy's Principles for Working with Communities offer a template for engagement with local communities during the course of the expansion project.
- 16.26 The strategy is focused on three interconnected priorities for these priority populations:
 - 1. Supporting people to lead healthy lives by preventing physical ill health and promoting physical well-being
 - 2. Supporting people's mental health and emotional well-being by preventing mental ill health and promoting emotional well-being
 - 3. Supporting people to reach their potential by addressing the wider determinants of health this is also about skills development, training and employment, considering the impact of community safety and the built/natural environment on health
- 16.27 Surrey County Council's commitment to encouraging active means of travel is detailed in Local Transport Plan 4.

Construction Phase Impacts

- 16.28 There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, exacerbates asthma and has a contributory role in mortality. There is also a growing body of evidence of links between poor air quality and poor mental health, as well as links to specific mental disorders.
- 16.29 Air quality issues raised in relation to the construction phase in Chapter 11 are therefore pertinent to consideration of health impacts.
- 16.30 The widening of the A23 along the length of Riverside Garden Park, along with extensive bridge works and the redesign of Longbridge roundabout and the Longbridge Works Compound works compound will fundamentally harm both Church Meadows and Riverside Garden Park recreation spaces throughout the construction period 2024-2032. This will put local communities off using these spaces and as a result contribute to undermining their wellbeing.
- 16.31 Parts of Surrey, including Horley and Charlwood, will be affected by both construction and operation of the project. We query whether the full cumulative and combined impacts of the construction and operation phases on the physical and mental well-being of vulnerable group populations have been considered. For example, active transport links should not be impeded, and pedestrian/cyclist safety maintained at all times.

Operation Phase Impacts

Health Impact Assessment

- 16.32 The Health Impact Assessment (ES Chapter 18 APP-043) has identified a Health Local Study Area (HLSA) which includes Crawley, Reigate and Banstead, Tandridge, Mid-Sussex, Horsham and Mole Valley. Due to the selection of KPIs and 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 and these are somewhat masked by the grouping of deprived wards with affluent wards.
- 16.33 The Applicant is asked to review and reconsider the Health Impact Assessment using smaller geographical footprints to assess against any further need for mitigation in accordance with local need.
- 16.34 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 should include collaboration with local authorities and public health.
- 16.35 It is also 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 Environmental Statement.

Ultrafines

- 16.36 Particulate Matter (PM_{2.5}), are small particles with a diameter of less than 2.5µm, produced mainly from combustion of hydrocarbon fuels and Industrial processes. PM_{2.5} particles can penetrate deeply into the lung leading to impaired lung function, exacerbation of asthma and a cough in the short term; stroke, lung cancer and cardiovascular disease in the long term. In 2021 the WHO published updated Air Quality Guidelines, outlining a mean annual concentration of 5µg/m3 as being the safe upper limit for PM_{2.5} concentrations. Population-weighted annual mean PM_{2.5} data is provided at local authority level by The Department for Environment, Food & Rural Affairs (DEFRA). There are also particular concerns about residents' exposure to ultrafine particles (less than 0.1µm in diameter).
- 16.37 In chapter 13 of the ES (APP-0380), the Applicant states 'However, PM_{2.5} is considered to be a good indicator of general risk associated with exposure to fine and ultrafine particulate matter, and this has been quantitatively assessed in this ES, to allow an evaluation of effects and to respond to stakeholder queries.'

- 16.38 The JSCs are not aware of any work that suggests that PM_{2.5} metric is a good indicator of the risk associated with exposure to ultrafine particulate matter in fact quite the reverse with the WHO stating³²: 'Generally there is very little or no relationship between particle number count and mass concentrations of larger particles (PM_{2.5})' and goes on to say 'focusing only on PM_{2.5} may result in overlooking the impact of UFP (Ultra fine particles) and there is no evidence that mitigating particle mass only (PM₁₀, PM_{2.5}), as the existing air quality measures do, will necessarily lead to a reduction in UFP.
- 16.39 The JSCs consider that the ultrafines qualitative health impact assessment is likely to be underestimating the potential health impact from aviation. Given the level of ultrafine impact residents currently experience and the uncertainty around the extent to which exposure might increase, the JSCs have set out specific requirements in relation to ultrafine monitoring in the Air Quality chapter 11.

Noise

- 16.40 Health effects can also be attributable to noise and further detail is provided in chapter 12. The JSCs consider that the current approach is likely to underestimate true health cost associated with the project as using out of date and potentially inappropriate exposure response functions.
- 16.41 The TAG assessment (Table 6.1.1 Appendix 14.9.2 APP-172) is likely to underestimate the health costs of noise as it currently uses evidence for noise effects on health based on studies largely published before 2010 and includes a limited number of health outcomes including amenity (annoyance), subjective sleep disturbance, hypertension, vascular dementia, Acute Myocardial Infarction (AMI), and Stroke (para 14.12.22, Chapter 14 APP-039).
- 16.42 Therefore, in addition to a noise TAG assessment using the 'current' methodology, the Applicant should also undertake an updated TAG assessment that takes account of the most recent Exposure Response Functions using for example WHO ENG 2018 ERFs³³ ^[1], to help examine the potential variability in the TAG assessment methodology. The health 'cost' based on both approaches should be published. Such an approach was planned for the Heathrow expansion (Heathrow 2019 PEIR Chapter 14 noise and vibration).
- 16.43 It is also worth noting that TAG does not include mental health, wellbeing and quality of life outcomes, yet a number of exposure response functions are being produced that could be used in such an analysis. Again, this was the approach that Heathrow were taking prior to the suspension of their DCO work and it is disappointing that the Applicant has not taken such an approach in the current work given this work was discussed in the *Study on Fair and Equitable Distribution of Aircraft at Gatwick (2022)* commissioned by the Applicant. As a consequence, the current assessment is likely to be an underestimate of the true health cost.
- 16.44 It is also important to note that the WHO and SoNA 2014 exposure response functions are steady-state relationships, reflecting the relationship between current noise exposure and

³² WHO (2021) Global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. ISBN 978-92-4-003421-1.https://apps.who.int/iris/handle/10665/345329. Page 151

³³ [1]</sup> Basner, M., and McGuire, S. (2018). "WHO Environmental Noise Guidelines for the European Region: A Systematic Review on Environmental Noise and Effects on Sleep," Int. J. Environ. Res. Public Health 15, 519.

annoyance. They do not reflect how people may respond if there is a change in exposure, which has led to criticism of their use in assessments dealing with airport expansion or airspace change including cost-benefit analyses such as TAG (Independent Commission on Civil Aviation Noise - Review of the Survey of Noise Attitudes 2019). ICCAN recommended that before and after studies of change in aviation noise are needed but studies have yet to be carried out for the UK context.

- 16.45 In view of the absence of before and after studies on change in aviation noise and its impact on annoyance, if the DCO is granted the JSCs would suggest that such a study is commissioned by the airport to help UK aviation policy, inform future airport expansion plans, and help in its own work on the fair and equitable distribution of aircraft movements, and help address local community concerns that existing surveys looking at noise impacts are too focused on Heathrow and do not take account of the more rural nature of Gatwick. This could inform the refinement of local mitigation requirements.
- 16.46 The outcomes of the work can also be acted on (if needed) via the airport's noise action plan, and the airport's proposed reviews of its noise envelope.
- 16.47 Within the LIR Noise chapter 12 there are location specific comments at para 12.149 raising the health impact for residents within the designated Noise Impacted Area and highlighting the lack of mitigation proposed. There are also a number of noise sensitive receptors, including schools and care homes that will experience an increase in flights.
- 16.48 The JSCs also highlight their support for the suggestions made by the UK Health Security Agency in relation to noise in their Relevant Representation. These include:
 - Little good quality evidence exists from large UK infrastructure projects to confirm whether sound insulation schemes are effective to protect health and the extent of unintended consequences, particularly in relation to the effects of climate change and increased temperatures. The Applicant could put monitoring in place to assist in the development of evidence.
 - Contours for awakening should be considered so these can be compared to contours informing the noise insulation scheme.
 - HIA for noise to include the number of people estimated to be highly annoyed and highly sleep disturbed, particularly as international studies have found associations between noise annoyance and self-reported health.
 - Air noise SOAEL should also include the estimated increased risk at this level for stroke, IHD and depression

Open Space Alterations

16.49 With both Church Meadows and Riverside Garden Park set for surface area reductions as a result of the highways works, combined with the noise and vibration impacts associated with the Project, this will make the locations less attractive for exercise and relaxation particularly during the construction phase and until the vegetation loss has regrown in the operation stage. Green Spaces are an important part for well-being. The UK Government's 25 Year Environment Plan, 'A green future: Our 25-year plan to improve the environment' acknowledges the essential role that the natural environment and greenspace play in people's physical and mental health and aims to improve population health and wellbeing by forging a closer connection between people and the natural environment. RBBC DMP

Policy OSR1 seeks to prevent the loss of open space unless there are exceptional circumstances. Whilst we note that the Applicant is seeking to provide an increase in the quantum of publicly accessible open space towards the end of the Project, some will miss out on the relative calm that Church Meadows and Riverside Gardens Park currently provide for around 15 years.

Required Mitigation

Noise Insulation

- 16.50 As recommended by the UKHSA, a commitment to monitor:
 - The effectiveness of sound insulation to deliver healthy indoor environments and reduce noise awakenings in practice (taking into account real-life ventilation practices
 - Annoyance and self-reported sleep disturbance in the community at discrete milestones throughout the project's construction and operation phases.

Requirements and Obligations

Summary of i	mpacts – Health & Well	Being			
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context RBBC CS5?
H1	Noise impacts on adjacent local communities	C/O	Negative	Detail of how Noise Insulation Scheme is being targeted at those most in need	NPS-AP – NPS-NN RBBC DES9 MVDC Local Plan (2000): Housing Development Affected by Noise Future MVDC Local Plan: EN12: Pollution Control INF6: Gatwick Airport
H2	Underestimation of true health cost	0	Negative	As the TAG assessment is likely to be an underestimate of the health cost to the local community, a sensitivity test should be undertaken using	RBBC INF1 MVDC Local Plan (2000): Housing

Summary of in	Summary of impacts – Health & Well Being							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context RBBC CS5?			
				updated exposure response functions.	Development Affected by Noise Future MVDC Local Plan: EN12: Pollution Control INF6: Gatwick Airport			
H3	Absence of before and after studies on change in aviation noise and impact on annoyance	0	Negative	An obligation for the Applicant to undertake noise surveys to examine community annoyance both before the airport expansion works begin and after the works have been completed.	Future MVDC Local Plan: EN12: Pollution Control INF6: Gatwick Airport			
H4 (Also AQ07)	Impact of ultrafine particle pollution on Horley Residents in particular	0	Negative	A commitment from the Applicant to fund in full from 2025 ultrafine particle monitoring (both number and size	DEFRA Air Quality Guidance (TG22)			

Summary of impacts – Health & Well Being								
Ref	Description of Impact	Construction (C) / Operation (O)	Negative/Neutral/Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context RBBC CS5?			
				distribution) using equipment used on the UK national network at one of the council's real time monitoring sites out to 2047 or 389,000 movements whichever occurs later, including the capital replacement costs of the equipment on a 10 year basis.	Flight Path to the Future (p.35) / Aviation 2050 para 3.127			

17. Agricultural Land Use and Recreation

Current Context

- 17.1 Gatwick Airport is bordered in Surrey by the parishes of Burstow, Charlwood and Horley. These parishes have 109 public rights of way, providing an off-road network of over 80km. Cyclists can currently use around 10% of the existing public rights of way network in these parishes. As well as use by the local population, the Gatwick perimeter area also contains two long distance routes, the 150-mile-long Sussex border path along the northern and north-eastern edge and the National Cycle Route 21. The existing network is a key asset for residents and visitors providing options for both functional and recreational journeys.
- 17.2 The Public Rights of Way within the project site boundary in Surrey are as follows:
 - Horley FP574 to the north east of the Longbridge Roundabout and runs northwards between the A23 and Church Road (links into Church meadow)
 - Horley FP360 runs east of the railway line to the north of Airport Way
 - Sussex Border path along the alignment of Horley FP362a and Horley Footpath 355a

 west of B2036. This is a popular route but which can suffer from flooding issues.
 Footpath 355a is narrow and enclosed.
 - Sussex Border Path along the alignment of Burstow FP368, Horley FP368 and Horley FP367 to the north of the M23 spur road. SCC does receive reports about the narrowness and poor drainage on sections of these paths.
 - National Cycle Route 21 (NCR21) runs from Greenwich to Eastbourne passing through Redhill and Horley in Surrey. It provides an important non-vehicular route between Horley, Crawley and Gatwick Airport for use by cyclists and walkers. It runs through Riverside Garden Park alongside Gatwick Stream and connects to the north of the airport via a subway. The cycle path through Riverside Gardens, and alongside the A23 is a narrow and uncomfortable path directly alongside the traffic which can flood badly.
- 17.3 Riverside Garden Park is the largest recreation space for the residents of the Horley Gardens Estate. Its lake and mix of woodland and open space make this an attractive place for local residents. The nearby Church Meadows is another popular open space sandwiched between St Bartholomew's Church and the River Mole. Both will be negatively impacted by the proposed highways works. There is also the nearby Michael Crescent Centenary Park with its playground and football pitch.
- 17.4 Between the London to Brighton Railway Line and Balcombe Road is a large field currently used by horses as a pasture. The south of this site is planned to become a business park whilst the area to the north, which is at risk of flooding, will form the Horley Town Park a long held aspiration by Horley residents. To the east of Balcombe Road up to the M23 are the Rural Surrounds of Horley which are predominantly used for grazing in the vicinity of the DCO area. The most southerly part of the site, between Balcombe Road and the M23 junction north of the M23 spur will see some highways related works.

Policy context

National

National Policy Statement

17.5 Both the ANPS and the NPS-NN set out that the Applicant is expected to take appropriate mitigation measures to address adverse effects on green infrastructure, 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. Paragraph 5.175 of the NPS-NN specifically; 'Where networks of green infrastructure have been identified in development plans, they should normally be protected from development, and, where possible, strengthened by or integrated within it. The value of linear infrastructure and its footprint in supporting biodiversity and ecosystems should also be taken into account when assessing the impact on green infrastructure.'

National Planning Policy Framework (NPPF) (December 2023)

17.6 Paragraph 102 states; '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.' Paragraph 104 sets out that planning decisions should protect and enhance public 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.

Local

Mole Valley District Council

Adopted Mole Valley Local Plan

- 17.7 The overall aims of the Local Plan (2000) are to provide a balanced approach to transport facilities within the District by limiting demand for travel by car, particularly in peak periods; to encourage greater use of other modes of transport such as public transport and cycling and to encourage walking and cycling as a form of recreation.
- 17.8 Policy MOV2 The Movement Implications of Development will normally only be permitted by the Council where it can be demonstrated that it is or can be made compatible with the transport infrastructure and the environmental character in the area, having regard to all forms of traffic generated by that development.
- 17.9 The Core Strategy (2009) advocates the improvement in the extent and quality of pedestrian and cycle routes can contribute to providing sustainable access to services, facilities and jobs and commits to working in conjunction with the Surrey County Council; seek to improve the existing network of pedestrian and cycle routes. However, there are no specific policies in relation to this.

Future Mole Valley Local Plan

- 17.10 Policy S2: Combatting the Climate Emergency, and related policy EN13: Standards and Targets for Combatting the Climate Emergency, INF1: Transport, INF4: Community Facilities requires that the Council work with developers, partners and funding agencies to create new walking or cycling routes or seek improvements to walking and cycling routes, such as upgrading public footpaths, new pedestrian crossings and footway widening to reduce conflict between cyclists and pedestrians.
- 17.11 Policy EC5: Sustainable Leisure and Tourism also addresses these issues and requires that the design and location of facilities minimises the need to access them by private car, is acceptable in terms of the impact on the highway network, can provide a safe access to the attraction and is accessible by sustainable means of transport such as public transport, cycling and walking. The Council also requests that any additional pressures on the adjacent network of rights of way are mitigated and that where they are part of an agricultural enterprise, they are presented in the form of a Whole Farm Plan.

Reigate and Banstead Borough Council

Local Plan

- 17.12 The Local Plan Core Strategy Strategic Objective S05 seeks to increase opportunities for pursuing healthy lifestyle, by maintaining and enhancing recreation facilities which encourage walking and cycling. Policy CS2: Valued Landscapes and natural environment para 2 states that: 'The Council will work with a range of partners to promote, enhance and manage a substantial network of multi-functional green infrastructure across the borough to maximise the social, economic and environmental benefits of the borough's green fabric.' Policy CS12: Infrastructure delivery seeks to; '...secure green infrastructure in line with its, [the borough's] Green Infrastructure Strategy 'and 'resist the loss of existing leisure and community spaces (including sport, recreation and cultural) and open spaces, unless it can be demonstrated that (para5b): 'equivalent or better provision in terms of quantity and quality, or some wider community benefits will be made in a suitable location.' Paragraph 6; 'Seek provision and maintenance of leisure and community facilities and open spaces from new development.'
- 17.13 DMP Policy NHE4: Green and blue infrastructure para 3 land designated as a Riverside Green Chain and the suitable uses including para 3b Formal outdoor recreation, allotments, agriculture and woodland where feasible. To the East of Balmoral Road north of the M23 spur is part of the Rural Surrounds of Horley which is an area of protected countryside under Policy NHE7: Rural Surrounds of Horley which supports the Paragraph 1a: ' essential needs of agriculture, forestry and outdoor sports with development that is an appropriate size, siting...' The purpose of NHE 7 is to ensure that the countryside is safeguarded from encroachment and continues to provide the setting for the urban area.' Map of Horley Rural Surrounds included at Figure 17.1.
- 17.14 DMP Policy OSR1 seeks to protect Urban Open Space with such losses only being permitted in exceptional circumstances.

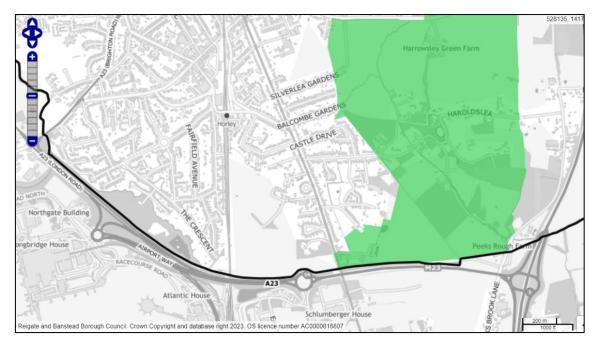


Figure 17.1 Rural Surround of Horley East of Balmoral Road

17.15 Green infrastructure is further supported in the Reigate and Banstead Green Infrastructure Strategy 2017 (Currently being updated) Priority 5 which states; 'High quality, accessible local greenspaces, and the links between them can bring benefits such as reducing the need to travel, encouraging informal play and recreation, encouraging walking and cycling, as an educational resource, local food growing, and mental health benefits.'

Tandridge District Council

Local Plan

17.16 Policy CSP 13 is entitled Community, Sport and Recreation Facilities and Services and this policy states "Existing community, recreational, sports facilities and services and open space will be safeguarded. New or improved facilities to meet the needs of all sections of the community will be encouraged. Residential development may be required to include appropriate open space, play areas or other accessible green space to meet the needs of residents and/or to contribute to the enhancement of such facilities in the area...The Council will seek to protect the Rights of Way network, in particular the North Downs Way national trail, the Greensand Way and Vanguard Way recreational paths from developments that would adversely affect the enjoyment of users of the network. The Council will encourage improvements to the network and the North Downs Way."

Surrey County Council

Surrey Rights of Way Improvement Plan (ROWIP)

- 17.17 The ROWIP considers the status of the network, the needs of its users and investigates how the network could be improved to reflect changing patterns of use.
- 17.18 Within the ROWIP five objectives are identified for the improvement of public rights of way:

- To improve accessibility to services, facilities and the wider countryside along rights of way
- To improve connectivity of rights of way and to reduce severance
- To improve the quality of the public right of way network
- To increase recreational enjoyment
- To secure coordinated implementation of the ROWIP with the available resources

Construction Phase Impacts

Positive

17.19 The JSC's have identified no positive impacts during this phase.

Neutral

17.20 The JSC's have identified no neutral impacts during this phase.

Negative

17.21 There are a number of RoW diversions within Surrey proposed during construction. A number of lengthy (both in time and distance) diversions are proposed and the table below provides comment on the proposals.

NMU Route	Comments
Horley FP360	Footpath 360 across the railway line under Airport Way Rail Bridge to be diverted for 30 weeks in total for construction of the extension of the east abutment and installation of the beams to accommodate the widening of the railway bridge. Footpath 355 is also being diverted so phasing is essential to ensure access.
Sussex Border Path along the alignment of Horley FP362a and Horley Footpath 355a	355a across the railway line under Airport Way Rail Bridge to be diverted for 3 weeks to allow for installation of new beams for widening of Airport Way. It will be diverted to NCR21 which does involve a lengthy diversion.
Horley FP367	Footpath 367 east of Balcombe Road to be diverted 8 weeks for construction of M23 Spur eastbound widening. This is a long diversion along Balcombe Road and back down along 367.
National Cycle Route 21 (NCR21)	NCR 21 as it runs through Riverside Garden Park alongside Gatwick Stream and connects to the north of the airport via a subway to be diverted 12 weeks to extend underpass to accommodate the widening of the embankment between the railway bridge and Airport Way Bridge. From south to north the temporary diversion would run from the junction with the Sussex Border Path (section 355/1Sy) to the south of Airport Wayand head north along the route of the Sussex Border path (Surrey section 355a) to the pedestrian bridge over the railway. From here cyclists would head west towards The Crescent and then proceed northwest along The Crescent to re-join the NCR21 close to the entrance to Riverside Garden Park. Footpath Horley 335a and 362a are too narrow to accommodate cyclists and pedestrians. Cyclists will have to dismount.

- 17.22 During the construction phase Church Meadows, will be adversely affected by the River Mole/ A23 London Road bridge works and highway alterations, including the removal of a vegetation buffer. At present Church Meadows is a popular open space with local communities and workers in the area. The road works and bridge piling will make Church Meadows a much less attractive area to visit and relax.
- 17.23 Similarly, the road widening works will see the reduction of the vegetation and tree buffer running the length of Riverside Garden Park. This will make the park far less attractive place to visit whilst the road and drainage works are in progress.
- 17.24 The Special Category Land Plans (AS-016) detail the open space land to be temporarily and permanently acquired within Riverside Garden Park and Church Meadows. Provision for replacement land is made at two locations within Surrey, to the north of Longbridge Roundabout and Car Park B to the east of Riverside Garden Park. We note that the environmental works required to deliver the replacement land will not take place until a number of years after the Special Category Land is vested in the Applicant. This is because both sites for replacement land will initially be used as construction compounds. As replacement land will therefore not be made available at the time of impact, the JSCs seek justification for this approach.
- 17.25 Surrey County Council is landowner for the site north of Longbridge Roundabout and as yet have had no discussions or information relating to management and maintenance of the replacement land. Similarly, to date, no discussions have taken place with Reigate and Banstead Borough Council Property Services on the management and maintenance of Car Park B when it becomes an extension to Riverside Garden Park.
- 17.26 The South Terminal Roundabout Works Compound (T1) will impact grazing horses on the field to the north. Grazing animals contribute to the rural character of much of the adjoining area bordering the airport. Whilst we understand that the services of an Agriculture Liaison officer will be employed by the applicant, it is unclear if their role will be to support the protection and well-being of grazing animals affected by the Project.

Operation Phase Impacts

Positive

17.27 The location of the replacement open space to the north of Longbridge Roundabout would provide a valuable amenity space for Horley residents, linking to Church Meadows via a new pedestrian bridge. The replacement open space at Car Park B will be beneficial in ecological terms.

Neutral

17.28 The JSC's have identified no neutral impacts during this phase.

Negative

17.29 SCC considers that the Rights of Way improvements proposed are insufficient, particularly given the scheme's ambitious sustainable mode share targets. The scheme has not fully

explored how further improvements to the Rights of Way network around the airport could increase opportunities for sustainable travel from surrounding residential areas such as Charlwood, Hookwood and Povey Cross. The JSCs consider it a missed opportunity in terms of providing additional off road cycling options as well as improvements to existing routes.

- 17.30 A specific request relates to Charlwood Footpath 344. It forms part of the Sussex Border Path and links into West Sussex as well as onwards to Horley FP 368. We would like to see surface improvements and upgrades in status to Bridleway to these routes. The upgrade of these routes would provide the option of a sustainable transport link from surrounding residential areas. They align with similar requests from West Sussex.
- 17.31 As set out in the transport Chapter 11 improvement to the more direct route between Gatwick and Horley via the new signalised crossing of A23 London Road and Riverside Garden Park to provide for pedestrians and cyclists is vital. The cycle path through Riverside Gardens, and alongside the A23 is a narrow and uncomfortable path directly alongside the traffic. It also floods badly. Within Riverside Garden Park there is a wide and established natural surface path that could be used for surfacing. The onward existing cycle route from West Sussex is narrow at only 1250mm wide and needs to be widened.
- 17.32 The reduction in the vegetation and tree buffer running the length of Riverside Gardens parallel to the A23 London Road will make the park less attractive to users until the green buffer has been restored.
- 17.33 At present there are insufficient delivery plans and details regarding longer term management of the additional recreation space and the proposed pedestrian bridge linking into the reduced Church Meadows to further inform relevant authorities and future tenants and users.
- 17.34 Similarly, it will be many years before the Works Welfare Facilities on Car Park B are removed and works to green and link up with Riverside Garden Park will be completed. At present there is only an indicative plan of the proposed greening of car park B and link to Riverside Garden Park but no maintenance or long-term management scheme has been provided.

Required Mitigation

17.35 Changes are also required to the draft DCO, as set out in the table below, in order that it better reflects SCC's responsibilities in relation to RoW. Asks sets out in Chapter: 6 (Landscape and Visual Impact) and Chapter 7 (Ecology) detail the JSCs' views on changes needed in relation to Riverside Garden Park and clarification sought relating to the Replacement Land.

Requirements and Obligations

Summa	Summary of impacts – Agricultural land use and Recreation						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
RE1	SCC not identified as relevant discharging authority within dDCO – inefficient discharging process	C	Negative	Revisions required to Requirement 22 Public Rights of Way so that responsibility for the discharge of this Requirement relating to the Public Rights of Way Implementation Plan should sit with SCC within Surrey. Closure notices should also be received by SCC.	Aligns with roles and responsibilities within Surrey		
RE2	Insufficient consideration of improvements to RoW network to support sustainable travel targets (see also TT6 for further detail)	0	Negative	Additional active travel improvements should be included	NPPF (2023) Airports NPS NPS for National Networks Surrey LTP4 and ROWIP Reigate and Banstead Local Plan: Core Strategy 2019 Policy CS17: Travel Options and Accessibility MVDC Core Strategy: Policy Mov2		

Summa	Summary of impacts – Agricultural land use and Recreation							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context			
RE4	Article 40 Insufficient certainty in relation to the delivery of replacement open space	C and O	Negative	Ordinarily, the Council would expect the order to provide for the acquisition of existing open space land only once a scheme has for the provision of the open space land has been implemented to the local planning authority's satisfaction. Revisions required to article 40	DCO Model Provisions			
RE5	Unspecified approach to management and maintenance of Longbridge Roundabout and Car Park B Mitigation Area. This includes detail relating to maintenance of the proposed footbridge and path.	0	Negative	Detail required on legal mechanism for securing. To include detailed design and Management and Maintenance Plan, including funding arrangements.	NPS-NN - 5.175/ 5.180			
RE6	Lack of detailed design of Church Meadows	С	Negative	RBBC need to agree detail design, planting and signage of smaller Church Meadows	NPS-NN – 5.175/ 5.180			
RE7	Lack of detailed design of alterations to Riverside Garden Park and integration of Car Park B	C/O	Negative	RBBC need to agree detail design, planting and signage	NPS-NN – 5.175/ 5.180			
RE8	Protection of Grazing Animals	С	Negative	The Construction Code should include protection of grazing	NPS-NN-5.175			

Summ	Summary of impacts – Agricultural land use and Recreation							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context			
				animals including this as part of the Agriculture liaison Officer's role				

18. Major accidents and Disasters

Current Context

- 18.1 Gatwick Airport is in the Sussex Local Resilience Forum area and any response from Surrey partners to the airport and the 1.5km undershoot and overshoot thresholds would be led by Sussex Partners with support from Surrey. The aviation risk is assessed as medium given the potential impacts of any such incident involving commercial operators.
- 18.2 The Gatwick Fuel Farm is designated as an upper tier site under the Control of Major Accident Hazards Regulations 2015, which is overseen by West Sussex County Council and given the proximity to Surrey homes and residents is coordinated with the Surrey County Council Emergency Management and Resilience Team. The Airport is also fed by a pipeline that runs through Surrey that carry dangerous fluids, as defined in schedule 2 of the Pipeline Safety Regulations (PSR) 1996, are referred to as Major Accident Hazard Pipelines (MAHP). This feeds into Gatwick from the North, through Surrey and is covered in the Surrey LRF Major Accident Hazard Pipeline response plan.

Policy Context

National

- 18.3 National Policy StatementsThe Airports National Policy Statement (2018) reinforces that Government policy to ensure that, where possible, proportionate security measures are designed into new infrastructure projects at an early stage in the project development. Schemes must comply with the UK's civil aviation safety regime regulated by the Civil Aviation Authority
- 18.4 The government's Resilience Capabilities Programme (RCP) aims to increase capabilities to respond to and recover from civil emergencies. It does this by understanding what capabilities are needed to deal with the consequences of emergencies, regardless of whether those emergencies are caused by accidents, natural hazards or man-made threats. This in turn allows for the support to incidents at the airport to be provided alongside the airports own Emergency Orders as outlined in Civil Aviation Publication 168, Chapter 9, (Emergency Planning).

Surrey Wide

Surrey Local Resilience Forum

18.5 Surrey's Local Resilience Forum (LRF) is a multi-agency partnership made up of representatives from local public services, including the Emergency Services, Local Authorities, NHS England and the Environment Agency, which are all Category One Responders under the Civil Contingencies Act 2004. The LRF is also supported by Category Two Responders, such as National Highways and utility companies. The Surrey LRF brings together all agencies with a significant role to play in responding to and recovery from the effects of emergencies, and was formed to meet the requirements of the Civil

Contingencies Act 2004. The LRF aims to plan and prepare for local incidents and large-scale emergencies.

18.6 The SLRF is responsible for the writing of the Surrey Emergency Response Plan and the Surrey Community Risk Register.

Impacts

18.7 Based on risk assessment principles, an increase in aircraft movements at the airport will increase the likelihood of an aircraft emergency, although the Hazard/Impact would remain the same as current assessed.

Required Mitigation

18.8 There are no mitigation asks or drafting changes identified.

19. Cumulative Effects

19.1 The JSC's consider the cumulative effects of the proposal to be far reaching and these have been considered on a matter by matter basis throughout this document and are not duplicated here.

20. Local Authorities as Impacted Landowners

Surrey County Council and Reigate & Banstead Borough Council

- 20.1 Surrey County Council and Reigate and Banstead Borough Council will be impacted as landowners. The Applicant's case for compulsory acquisition of land is out lined in the Statement of Reasons (AS-008) and plots are identified in that document at Appendix A: Justification Table and Status of Engagement and how they will be affected by the proposal including Permanent Acquisition, Permanent Acquisition of Rights and Temporary Possession. Special Category Land - For Approval (AS-016) contains the plans of the land being considered. Three different types of Special Category land are identified:
 - Land subject to permanent acquisition
 - Replacement Open Space Land
 - Open Space Land to use temporarily and rights to be acquired permanently
- 20.2 The table 20.1 below identifies which plots will be affected by the works. More detailed descriptions of the plots and persons with interest in the land and other rights are included in the Book of Reference Part 1 (AS-010) in Table 3 Book of Reference. However, it appears that not all plots and their Special Category Land status have been included on Special Category Land Plans APFP Regulation 5(2)(i)- Key Plan (ASS-016).

Reigate and Banstead Borough Council Works **Plot Number** Identifiable Special **Description of Land Description of Powers Reason for acquisition** Numbers **Category Land** Sought 1/070, 1/094, Land Subject to Permanent 36 i Riverside Garden Park Works associated with 1/095, 1/096, i the Acquisition North Terminal 1/138, 1/165, i 1/166, 1/193, i Junction 1/201, 1/226A, Improvements i 1/227 37 1/004, 1/007A, i **Church Meadows &** Works associated with Land Subject to Permanent 1/008, 1/035, **Acquisition, Permanent Acquisition** lii **Riverside Garden** the 1/053, 1/064, Longbridge of Rights & Temporary Possession i Park? 1/069, 1/071, 1/074 Roundabout junction i i i i 1/007, 1/007A iii Riverside Garden Park Works associated with Land Subject to Permanent 40 i land to Acquisition, Permanent Acquisition the north east of of Rights & Temporary Possession Longbridge Roundabout

Table 20.1 Council lands affected by Proposal

Minor Works	1/036, 1/050, 1/093, 1/164, 1/226	 			Minor works, including protective works, access or utility divisions.
Surrey County	/ Council				
35	4/462, 4/463, 4/464, 4/465, 4/467, 4/470, 4/471, 4/475, 4/480, 4/482, 4/484, 4/486, 4/495	i	Public roads, verge, grassland, hedgerow at Bayhorne Farm	Works associated with the South Terminal Junction Improvements	Land Subject to Permanent Acquisition
36	1/109, 1/138, 1/149, 1/193, 1/200, 1/220A, 1/248, 1/292A, 1/268, 1/289A, 1/290A	i	Public roads, footways, scrubland, verges	Works associated with the North Terminal Junction Improvements	Land Subject to Permanent Acquisition, Permanent Acquisition of Rights & Temporary Possession
37	1/001, 1/002, 1/003, 1/009, 1/010, 1/005, 1/006, 1/007A, 1/011, 1/013, 1/013A, 1/014, 1/015, 1/016, 1/017, 1/018, 1/019, 1/024, 1/025, 1/026, 1/027, 1/029, 1/030, 1/031, 1/034, 1/035, 1/038, 1/039, 1/041, 1/042, 1/046, 1/047, 1/049, 1/053, 1/055, 1/056, 1/057, 1/058, 1/059, 1/061, 1/063, 1/064,	i	Gatwick Dairy Farm agricultural land, public road, verges and footways, grassland, River Mole banks and woodland	Works associated with the Longbridge Roundabout junction	Land Subject to Permanent Acquisition, Permanent Acquisition of Rights & Temporary Possession

	1/068, 1/069, 1/071, 1/072, 1/075, 1/076, 1/077, 1/078, 1/080, 1/081, 1/083, 1/086, 1/088				
40	1/013, 1/013A	i	Gatwick Diary Farm agricultural land, hedgerows and access way	Works associated with land to the north east of Longbridge Roundabout	Land Subject to Permanent Acquisition, Permanent Acquisition of Rights & Temporary Possession
Minor works	1/021, 1/036, 1/062, 1/205, 1/239, 1/172, 1/234, 4/461, 4/468		Grassland at Bayhorne Farm, public roads, verges, footways, woodland	Minor works	Land subject to permanent rights

Reigate and Banstead Borough Council

Open space land subject to permanent compulsory acquisition

20.3 Three areas of open space land will be permanently acquired by the Applicant from RBBC to facilitate the highways alterations. This includes:

1.01ha at Riverside Garden Park – a strip of land running parallel with A23 London Road
0.02ha South of the A23 Brighton Road woodland area adjacent to the confluence of Gatwick Stream and the River Mole
0.13ha of Church Meadows immediately north of the A23 Brighton Road

Replacement Land

- 20.4 Special Category Land iii Replacement Land has been proposed by the Applicant. This has been included in Schedule 10 of the Draft DCO. This includes plots:
 - 1/013 Land to west of Church Meadows RBBC 0.52ha Development Consent Order
 - 1/220 Car Park B East of Riverside Garden Park RBBC

Surrey County Council

20.5 The Surrey County Council Property team are submitting their own Written Representation to detail the council's position as an affected landowner. In common with the other highway authorities affected by compulsory acquisition we query the Applicant's approach to permanent acquisition of highway plots, rather than temporary.

Land Negotiations

20.6 A financial offer has been received by the councils for the plots in the above table but as of February 2024, no offers have been accepted by the respective councils. In the case of RBBC, contact with GAL property advisors has been minimal rather than as the Applicant would suggest in the Statement of Reasons document.

21. Development Consent Order

- 21.1 The JSCs have a number of comments to make in relation to the dDCO. For ease of reference these are set out in the table below, although a number are detailed further within the relevant topic chapters. The JSCs will also review the updated dDCO to be submitted at deadline 3 and provide further additional comment at the point.
- 21.2 The JSCs reviewed the Plans and Schedules as originally submitted and have a number of queries and comments as set out below:
 - Draft DCO page 65 ref a27 we are unclear why the whole roundabout has not been shown in blue. Why is there a portion left white?
 - Embankments supporting the highway/drainage features are presumably going to be part of the highway ultimately. We query whether this is clear from plans?
- 21.3 Schedule 3 Part 2 Private means of access to be stopped up and substitute private means and new private means & Rights of way and access plans:
 - Page 66 & sheet 2 of the rights of way and access plans: D1 It is unclear how the newly proposed private means of access links to the highway at Peeks Brook Lane. The pond is not shown on the rights of way and access plan. The highway is referred to as "Peaks Brook Lane" in the DCO, however is spelled "Peeks Brook Lane" on rights of way and access plans, and Google Maps.
 - Page 67 & sheet 1 of the rights of way and access plans: D5 the purpose of modifying this access is unclear.
 - Page 70 & Sheet 1 of the rights of way and access plans: C15 Need confirmation that this cycle track connects to the Woodland footpath on the SCC side of the border.
 - Page 70 & Sheet 1 of the rights of way and access plans: C21 Why does the Red Line Boundary extend significantly beyond the proposed work?
- 21.4 Schedule 5 (Classification of Roads) Part 2 (New and realigned classified non-trunk roads)
 - Page 72 & Sheet 1A of the Traffic Regulation Measures Classification of Roads Plans: There appears to be two point 28a's. Point 28b appears to be absent.
- 21.5 Schedule 6 (Traffic Regulations) Part 1 (Speed Limits)
 - Page 80 & Sheet 1A of the Traffic Regulation Measures Speed Limits plans: Should point 43a extend to the edge of the Red Line Boundary?
- 21.6 Traffic Regulation Plans Clearways and Prohibitions
 - There are some existing parking restrictions on Surrey's road network (e.g. double yellow on Povey Cross Road). Are they reflected in the plan?
- 21.7 Surface Access Highway Plans General Arrangements
 - Active Travel Paths do not extend to the edge of the red line boundary and are not clear regarding connection to existing footways/cycleways (e.g. c15 into Riverside Garden Park).

Requirements and Obligations

Summa	ry of impacts – Draft DCO				
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context
DCO1	Requirement 2 Commencement A number of the operations excluded from the definition of commencement seem capable of giving rise to significant effects	C	Negative	The Applicant must provide reasons specific to each exception being suggested. Revisions required to Requirement 2 (1) Commencement	Advice note 15: Drafting Development Consent Orders. The Explanatory Memorandum should explain why that particular wording is relevant to the proposed draft DCO
DCO2 (See also HE1)	Requirement 14 SCC not identified as relevant discharging authority within dDCO – inefficient discharging process	C	Negative	Revisions required to Requirement 14 Archaeological remains – i.e. replace relevant planning authority with County Archaeologist at Surrey County Council	Aligns with roles and responsibilities within Surrey
DCO3 (see also NV6)	Requirement 15 Air Noise Envelope	0	Negative	There is no role for any local authority control in this Requirement and the Council considers there should be. (The same point applies to R.16 (air noise envelope) and R17 (verification of air noise monitoring equipment)). Similarly, It does not explain why the CAA is the appropriate body for discharging Requirements 15 to 17. The Council considers the EM should be amended to reflect these points.	Advice note 15: Drafting Development Consent Orders (para 1.5). The Explanatory Memorandum should explain why that particular wording is relevant to the proposed draft DCO. For instance, it does not provide the source of this provision (if any), the section of the Planning Act 2008

Summa	ry of impacts – Draft DCO				
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context
				The JSCs can then better consider their position in respect of them these requirements. The JSCs notes R.15(4) requires the applicant to publish certain information on a website within 45 days of it being approved by the independent air noise reviewer. The JSCs seek confirmation as to why such a long deadline is included. Once approved, a document can be published on a website within seconds. (The same point applies to Rs. 16(6) and 17.	under which it is made, or why it is appropriate for the development of the project.
DCO4 (see also NV5)	Requirement 18 Noise insulation scheme	0	Negative	In the first instance, it would be helpful to know why each of the time limits set out in the requirement has been chosen. For instance, in R.18(1), why does the applicant have up to 3 months from commencement of Work Nos. 1 to 7 to submit noise insulation scheme details to the relevant planning authority? Why can't that be done (say) before commencement? The same point applies to the 6-month limit in R.18(2). The JSCs would	Circular 11/95: Use of conditions in planning permission. Airport NPS NPPF

Summa	Summary of impacts – Draft DCO							
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context			
				expect these points to be explained or sign-posted in the EM. Again in R.18(2), the JSCs considers the requirement to use "appropriate steps" to notify residential properties to be imprecise and considers these "steps" should be described in the requirement. As well as being imprecise, absent the explanation, the requirement would be difficult to enforce. In its current form, the requirement does not appear to satisfy at least two of the six tests of conditions (i.e. enforceable and precise) as required by the <i>Circular 11/95: Use of</i> <i>conditions in planning permission</i> .				
DCO5 (see also NV7 and NV9)	Requirement 19 Airport Operations	0	Negative	R.19(2) would restrict dual runway operations to 386,000 <u>commercial</u> air transport movements per annum. The Council considers a control on <u>total</u> air transport movements per annum would be appropriate and considers a total of no more than 389,000 would be reasonable.	Airport NPS NPPF			

Summa	ry of impacts – Draft DCO				
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context
				 R.19(3) allows the use of the northern runway between the hours of 23:00 - 06:00 when the southern runway is not available for use "for any reason". The Council considers "for any reason" to be too broad and considers the use of the northern runway between these times should only be used when the southern runway is not available because of planned maintenance and engineering works. Requirement is also needed to restrict use of the northern runway to departures. Requirement is needed to include a night movement cap - current DfT night noise movement cap in core night period (23:30 – 06:00) of 11,200 movements over the 218 day summer period and 3,250 movements in the winter period not to be exceeded. 	
DCO6 (See	Requirement 22	С	Negative	Revisions required to Requirement 22 Public Rights of Way so that	Aligns with roles and responsibilities within Surrey

Summa	Summary of impacts – Draft DCO						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
also RE1)	SCC not identified as relevant discharging authority within dDCO – inefficient discharging process			responsibility for the discharge of this Requirement relating to the Public Rights of Way Implementation Plan should sit with SCC within Surrey Closure notices should also be received by SCC			
DCO7	Article 10 Concerns around disapplication of sections of the 1991 Act	C	Negative	SCC wish to understand why section 77 of the 1991 Act is being disapplied.	Advice note 15: Drafting Development Consent Orders. The Explanatory Memorandum should explain why that particular wording is relevant to the proposed draft DCO		
DCO8	Article 11 concern at lack of detail	C	Negative	Owing to the small number of streets affected within the Order limits, it would seem straightforward to cross- refer in the article to a specified list. The Applicant will be aware that such an approach is not unusual. Absent such cross-reference, the Council maintains its position that the power should be subject to street authority control.	Advice note 15: Drafting Development Consent Orders. The Explanatory Memorandum should explain why that particular wording is relevant to the proposed draft DCO		
DCO9	Article 14	С	Negative	The extension of deadline from 28 to 56 days is welcomed, however, the			

Summa	Summary of impacts – Draft DCO						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
				Council maintains its in-principle objection to the deeming provision.			
DCO10 (See also W1)	Article 22 Lack of Protective Provisions for drainage authorities - Impact on SCC carrying out statutory duties.	C	Negative	Regarding ordinary watercourses, the council considers the provision of the drainage protective provisions secured on behalf of SCC in Part4 of Schedule 9 to the M25 junction 10/A3 Wisley interchange Development Consent Order 2022 (SI 2022/548) would be an appropriate starting point.	SCC LLFA responsibilities under Land Drainage Act 1991		
DC11 (See also W4)	Schedule 1 and 2 Impact on SCC carrying out statutory duties	C	Negative	Revisions required to schedule 1 and 2 of dDCO for accuracy purposes. For example foul water drainage is not reviewed by the LLFA	SCC LLFA responsibilities under Land Drainage Act 1991		
DC12	Article 31 Extended time periods for acquisition of land	C		The JSCs consider the power to acquire land or interests in land should be exercisable for 5, and not 10, years. It should run from the date the order comes into force, rather than the "start date".	Advice note 15: Drafting Development Consent Orders.		
DCO13 (See also LV15 and RE4)	Article 40 Insufficient certainty in relation to the delivery of replacement open space	C and O	Negative	Ordinarily, the JSCs would expect the order to provide for the acquisition of existing open space land only once a scheme has for the provision of the open space land has been	(The Infrastructure Planning (Model Provisions) (England and Wales) Order 2009)		

Summa	Summary of impacts – Draft DCO						
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context		
				implemented to the local planning authority's satisfaction. Revisions required to article 40			
DCO14	Inconsistencies and queries relating to Plans and Schedules	С	Potentially negative	Revisions required to Plans and Schedules as required	N/A		
DCO15 (See also TT5)	Lack of incorporation of Permit Scheme and Lane Rental Scheme Coordination of activities through the incorporation of the schemes is intended to be of benefit to the Applicant as a means of achieving positive and constructive collaborative working.	C	Negative	SCC requires that Lane Rental Scheme and Permit Scheme are incorporated into DCO. Within Surrey the Southampton to London Pipeline Project DCO, as made 7 th October 2020, includes the Permit Scheme. It has proved invaluable during delivery for both parties.	SCC Lane Rental Scheme SCC Permit Scheme		
DCO16	Article 48 there are exemptions proposed from large parts section 79(1) of the Environmental Protection Act 1990 in relation to nuisance. Given the airport's operation to date has occurred under this	C and O	Negative	Changes sought in relation to Article 48 in Draft DCO, to allow residents to bring nuisance action in relation to odour as they can do at present. The Applicant must clarify why such an exemption is needed - especially during the operational phase There is no explanation as to why the Applicant need to go beyond the	(The Infrastructure Planning (Model Provisions) (England and Wales) Order 2009) The council notes that in the model provisions (The Infrastructure Planning (Model Provisions) (England and Wales) Order 2009) the only exemption was for:		

Summa	ary of impacts – Draft DCO				
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context
	 legislation the council sees no reason why the Applicant should be able to exempt itself. The Sizewell C DCO is quoted as precedent in the Explanatory Memorandum. In the Sizewell order exemptions were sought for (lettering as per EPA 1990 section 79(1): (d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance; (fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance; (g) noise emitted from premises so as to be 			Sizewell 'precedent', nor indeed why they need these exemptions / greater powers in the first place, If article 48 is not struck out in its entirety the JSCs would want article 48(1)(b) to be amended as follows – changes in italics: b) is a consequence of the construction, maintenance or operation of the authorised development and that it cannot, to the reasonable satisfaction of the local authority reasonably be avoided. Regarding article 48 (defence to statutory nuisance), article 48(1) is too wide-ranging in its application to nuisances falling within section 79(1) of the Environmental Protection Act 1990. The Council considers it should apply, like Model Provision 7, to section 79(1)(g) only.	(g) noise emitted from premises so as to be prejudicial to health or a nuisance;

Summa	Summary of impacts – Draft DCO					
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context	
	prejudicial to health or a nuisance; (ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street Here exemptions are also sought from (c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance; (e) any accumulation or deposit which is prejudicial to health or a nuisance; (h) any other matter declared by any enactment to be a statutory nuisance;					
DCO19	Schedule 11 Financial impact on local authorities for ongoing activities relating to discharging of			The JSCs notes paragraph 3 (fees) is to be populated and looks forward to discussing the most appropriate way forward regarding fees. On a drafting		

Summa	ry of impacts – Draft DCO				
Ref	Description of Impact	Construction (C) / Operation (O)	Negative /Neutral /Positive	Required mitigation and how to secure it (change/requirement/ obligation)	Policy context
	conditions and other consents			point, the JSCs the provision should go beyond the payment of a fee in respect of "any for agreement, endorsement or approval <u>in respect</u> <u>of a requirement</u> " and should also apply to the payment of a fee in respect of the granting of any consent in respect of the Order. It will be remembered that several articles require the consent of the street authority (e.g. articles 12(3) and 14(4)), the traffic authority (e.g. article 18(5)(c)) and the highway authority (article 24(4)) and the cost associated with administering this work should also be covered by the Applicant.	

Appendices

Appendix A - D attached separately as standalone documents