

**GATWICK AIRPORT NORTHERN RUNWAY PROPOSALS
DEVELOPMENT CONSENT ORDER**

Planning Inspectorate's Reference: TR020005

**East Sussex County Council – Local Impact Report
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March 2024

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Section 1 – TERMS OF REFERENCE

1.1 Introduction

1.1.1 This Local Impact Report (LIR) has been prepared by East Sussex County Council (ESCC) as a statutory consultee (and neighbouring authority) in relation to Gatwick Airport's Limited's (GAL) Development Consent Order (DCO) application in respect of their Northern Runway Project (NRP). This project seeks powers to enable dual runway operations at Gatwick Airport through altering the existing northern runway, lifting restrictions on the northern runway's use, and delivering the upgrades or additional facilities and infrastructure required to increase the passenger throughput capacity of the airport. The NRP is classed as a nationally significant infrastructure project (NSIP).

1.1.2 Section 104 of the Planning Act 2008 (the 'Act') requires the Secretary of State (SoS) to have regard to LIRs in deciding applications. Under section 60(3), the relevant local authorities are invited to submit a 'Local Impact Report' (LIR). ESCC's LIR sets out the details of the likely impact of the proposed development on our authority's area', and in compliance with Advice Note One, consists of a statement of positive, neutral and negative local impacts.

1.2 Roles and responsibilities

1.2.1 ESCC is an upper tier local authority for the county of East Sussex. It has a number of statutory responsibilities in relation to the built, natural and social environments. These include acting as the authority for local highways, waste and minerals planning, county planning, lead on local flooding, fire authority (including public safety), public health, education and social services.

1.2.2 Wealden District Council, within the county of East Sussex, is a lower tier authority local planning authority. Similar to ESCC, they are a neighbouring authority in respect of GAL's NRP DCO and are the most affected district within ESCC in relation to aircraft operations and related journeys.

1.3 Structure of the LIR

1.3.1 The East Sussex County Council LIR report includes four sections: terms of reference, a description of the local area, a list of national and local policies, and the impacts on East Sussex and the required mitigation measures, set out in tables according to each topic area. The topic-based areas include an assessment of the positive, neutral and negative impacts during both the construction and operation of the project. Where negative impacts have been identified, mitigation measures have been recommended.

1.3.2 The LIR includes topics that ESCC consider relevant to the impact of the development on East Sussex, and which have also been assessed in the Environmental Statement. These are:

- Noise and vibration
- Socio-economics
- Greenhouse gases (carbon)
- Air quality,

- Traffic and transport
- Health and wellbeing, and
- Landscape Townscape and Visual

1.3.3 ESCC is a neighbouring authority and is therefore less affected by the construction and operational impacts associated with Gatwick Airport. Therefore, we have not commented on those topic areas which do not directly or indirectly affect us, (including water environment, historic environment, geology and ground conditions, ecology and nature conservation etc.)

1.4 Data gathering - an evidence-based approach

1.4.1 ESCC have used in-house expertise from officers and consultant advice to support the development of the LIR and the assessment of the local impacts.

1.5 Project change application

1.5.1 Regarding the project change application made on 27 November 2023, since this has not yet been accepted by the Examining Authority (ExA), it does not have a formal status in the examination and will not have any such status until it has been accepted. Owing to this, ESCC have not considered the change application in this LIR and will comment on this in due course and, if necessary, will produce a supplementary section to the LIR which will address the change application.

Section 2 – DESCRIPTION OF THE AREA

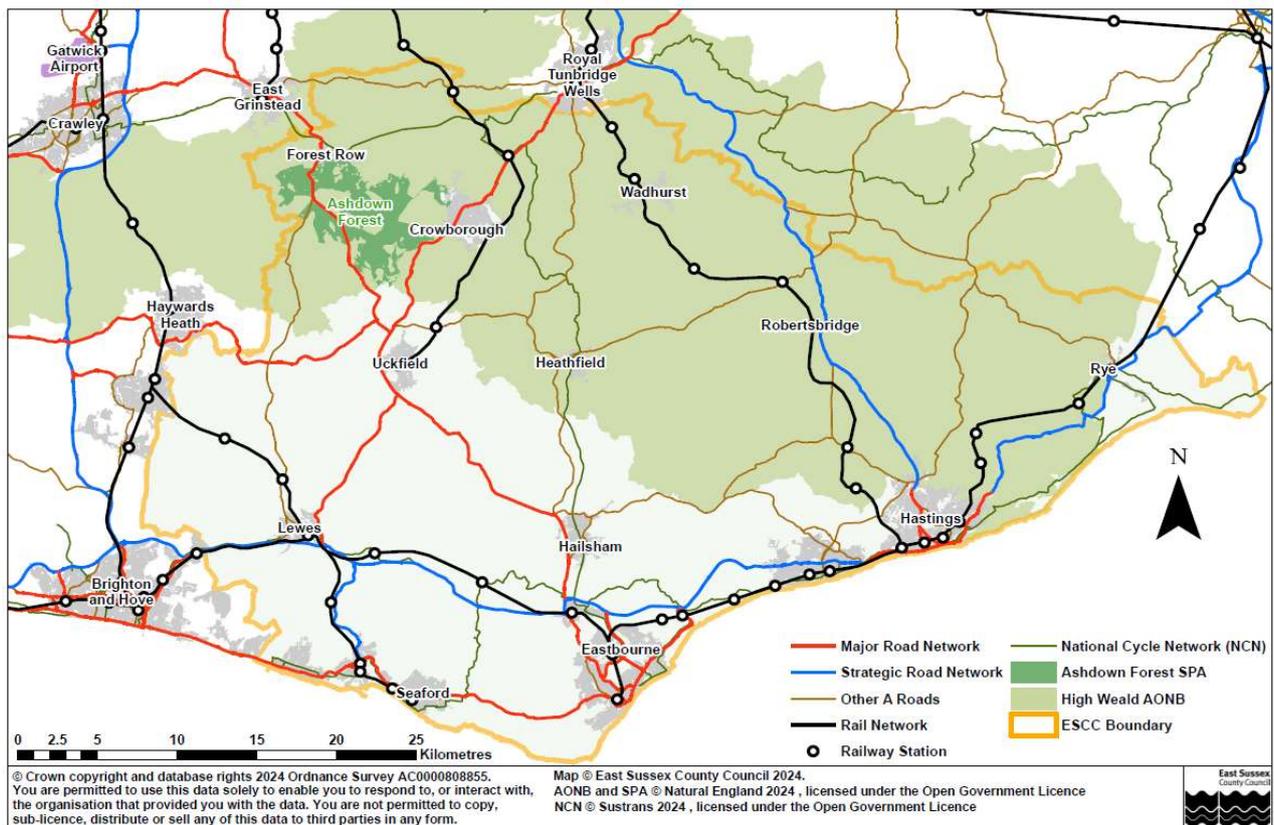
2.1 Location

2.1.1 The county of East Sussex is situated in the south east of England. It covers an area of 1,792 km² (692 square miles) and includes the administrative boroughs and districts of Hastings, Eastbourne, Lewes, Rother, and Wealden. The county has rail and highway connectivity east-west and north-south. It is home to the eastern area of the South Downs National Park (south west of the county) and a large proportion of the High Weald Area of Outstanding Natural Beauty (across the north and east of the county).

2.1.2 East Sussex is located south of London, with Kent to the north and east, West Sussex and the city/unitary authority of Brighton & Hove to the west, and Surrey to the north west.

2.1.3 The map below (Figure 1) shows the county's major transport corridors including railway lines and stations and strategic road network, major road network and other A roads. Gatwick Airport is the nearest commercial airport to East Sussex. By car it takes approximately one hour to get to the airport from the centre of the county.

Figure 1: East Sussex Transport Corridors



2.2 Population and demographics

2.2.1 Based on the Office for National Statistics (ONS) 2021 Census, the population in East Sussex is approximately 546,000, an increase of over 19,000 people (3.6%) since 2011, with population increases in each of its boroughs and districts (East Sussex in Figures - population by age and sex, 2001-2021, districts, census 2021). The population is set to increase to 628,000 by 2035 (an increase of 15% (East Sussex in Figures - Population projections by age and sex (dwelling led), 2020-2035 - districts)). All borough and districts are also expected to continue to experience population growth:

- Wealden is expected to see the greatest increase in population at 22% with an additional 43,600 people
- Eastbourne is expected to see the smallest increase at 4% with an additional 4,100 people
- Hastings is expected to have 5,000 more residents (+5.4%), Lewes 11,200 (+11%) and Rother 12,100 (+12.5%)

2.2.2 This population growth increases the need for housing, accessible transport, jobs, healthcare, education and learning provision in addition to the creation of places where people are proud to live, work and visit.

2.3 Employment

2.3.1 The number of East Sussex residents who are in employment (within or outside the county) in 2020 has increased by 8,000 since 2010 (from 176,000 employees to 184,000) (Business Register and Employment Survey (BRES), Table 5 - October 2022).

2.3.2 However, employment opportunities are not evenly distributed across the county. Eastbourne and Lewes districts have higher numbers of jobs per working age resident suggesting there is a higher proportion of jobs available in these districts, whilst in Wealden, Rother, and Hastings we see a lower proportion of jobs for every working age resident.

2.3.3 There are 24,335 businesses in East Sussex (3,870 in Eastbourne; 3,140 in Hastings; 4,530 in Lewes; 4,130 in Rother; and 8,665 in Wealden) (East Sussex in Figures). Delivery of transport improvements is an important part of increasing the attractiveness of East Sussex, influencing business location and enhancing strategic connectivity between our districts and boroughs to better connect people to these employment opportunities.

2.3.4 In March 2021 there were around 12,160 people working in Crawley, of which 480 (4.5%) were from East Sussex (2021 Census, ONS). More than half (55%) of those working in the Crawley/Gatwick area work in higher and intermediate managerial, administrative or professional occupations, and only 28% are female (compared to 48% of the East Sussex county employed average). 40% of East Sussex residents working in Crawley 001 – Middle Layer Super Outpost Area MSOA(1), which includes Gatwick

Airport¹ (1) – lived in Wealden (190 people), and 32% (160) lived in Lewes, with 21% (100) coming from Eastbourne. Only 5% (20) lived in Rother and just 2% (10) in Hastings.

2.3.5 The numbers working in Crawley are about half of what they were in 2011, when there were 21,600 people working in the MSOA according to the 2011 Census, of whom 1,120 lived in East Sussex. Of these people, 82% travelled to the MSOA by car (equivalent travel to work data is not yet available from the 2021 Census). In terms of overall employment in the air sector by people who are resident in East Sussex, the 2021 Census suggests that 610 people worked in the Air Transport sector in March 2021, nearly half of whom (48%) lived in Wealden. In 2022, the ONS's Business Register and Employment Survey (BRES) estimated that there were a total of 21,000 people working in Crawley 001 MSOA, down from 24,000 in 2021, and considerably lower than the peak of 30,500 employees in the MSOA in 2019. Of these, 19% (4,000) worked in the Air Transport sub-sector, and less than half of the 10,500 worked in Transport and Storage as a whole, which made up 50% of all employment in Crawley 001 in 2022.

2.3.6 The reason that the Census and BRES figures are so different may be related to how people were working in March 2021. Census 2021 took place during the coronavirus (COVID-19) pandemic, a period of unparalleled and rapid change. Many people were furloughed or were working at home due to lockdowns and associated measures. Far fewer people were travelling through the airport at the time, but numbers of overall movements and passengers were much recovered in 2022 (Source: Department for Transport table AVI0102, from Civil Aviation Authority data, updated December 2023).

2.4 Transport

2.4.1 In East Sussex, transport accounts for 35% of CO₂ emissions. Decarbonising transport is therefore a vital part of achieving net zero emissions by 2050. Commuters in East Sussex largely travelled in private cars and vans (60%) prior to the pandemic (East Sussex in Figures, 2011 census). This data also shows us that a higher proportion of people worked from home in East Sussex (8%) before the pandemic, compared to England and Wales as a whole (5.4%). The higher rate of working from home after the pandemic provides an opportunity to pursue interventions to build well connected communities where residents can access goods, services, and opportunities without making long journeys.

2.5 Bus passenger journeys

2.5.1 During the Covid-19 pandemic restrictions, bus passenger journeys in East Sussex fell to 8.4 million, down from 17.7 million in 2019. Our Bus Service Improvement Plan (BSIP) enabled ESCC to secure £41.4m of Government funding in July 2022 with the aim of improving passenger numbers to exceed pre-pandemic levels. This funding is delivering bus service enhancements across the county alongside Digital Demand Responsive Transport (DDRT) services, particularly in more rural areas. Bus priority measures will also be delivered on key public transport corridors including Eastbourne Station, Seaside Corridor and Seaside Roundabout, Sovereign Harbour in Eastbourne, and Newhaven Town Centre Ring Road, Newhaven Drove Road and Denton Roundabout in Newhaven,

¹ Middle Layer Super Output Areas (MSOA) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales. Middle Layer Super Output Areas. are built from groups of contiguous Lower Layer Super Output Areas. The minimum population is 5000 and the mean is 7200.

and the A259 Peacehaven. The measures will deliver significant improvements to bus services and infrastructure. The BSIP has facilitated passenger growth in East Sussex with passenger numbers in 2023 being 15.8m, around 90% of 'pre-Covid' levels (2019 passenger figures – 17.7m).

2.5.2 Bus services to the airport from East Sussex are poor since there is no direct bus service to Gatwick airport. The nearest direct service from the airport serves East Grinstead, in West Sussex.

2.6 Railway station use

2.6.1 East Sussex is home to 38 railway stations. In 2019/20, entries and exits at stations in the county reached a peak of 18.4 million, declining to 5.6 million in 2020/21 due to Covid-19 pandemic restrictions. In 2021/22, it demonstrated a considerable recovery to 13.6 million entries and exits.

2.6.2 During 2019/20 Eastbourne was the busiest station in the county with over 3.6 million entries and exits and 61,000 interchanges (changes between services). Lewes and Hastings were the next busiest stations with 2.6 million entries (and 508,000 interchanges) and 2.4m million entries and exits (65,000 interchanges) respectively. Bexhill and Polegate are the only other stations in the county to have over 1 million entries and exits with 1.5 million and 1 million respectively (Office of Road and Rail - table 1410 passenger entries and exits and interchanges by station, updated July 2021).

2.6.3 Passenger numbers are showing a positive recovery following the Covid-19 pandemic and there is an opportunity to work with the train operating companies and Network Rail to grow rail patronage, particularly on inter-urban trips. We will be looking to achieve this through an updated Rail Strategy for East Sussex which is currently being developed as part of our Local Transport Plan 4.

2.6.4 Those travelling along the East Coastway and changing at Brighton Station benefit from the most convenient and fastest route to the airport; with more frequent services on the Brighton Main Line. However, other services are more convoluted and require a change of train. Those travelling on the Uckfield line to Gatwick can change at East Croydon, with journey times taking around 1h30, compared to around 50 minutes if travelling by car.

2.6.5 Those living in Hastings would use the East Coastway and change at Brighton to access Gatwick Airport, taking around 1h40 minutes, whereas with driving takes 1h20. Residents who live north of Hastings, on the Hastings-Tonbridge line, can travel to Gatwick Airport via Tonbridge to Redhill, and then south to Gatwick. Train journeys however can be twice as long, for example from Stonegate to Gatwick, to drive takes about an hour, and the train around 2 hours. Therefore, this is a route unlikely to be well used due to the number of changes required, and the end-to-end journey time of around 1h41. It is important to factor in parking (at the airport, park & ride, drop-off) as part of the end-to-end journey times, as the train delivers employees and passengers directly to the airport. Also, depending on flight times, train service may not be available, which is also a factor needing to be considered when determining how to travel to / from the airport.

2.7 Strategic highway journeys

2.7.1 Traffic volumes in East Sussex are highest along its major roads, some of which are managed by East Sussex (for example, A26 Lewes to Tunbridge Wells and A259 Peacehaven to Pevensey) and others by National Highways (namely the A21, A26 (Newhaven to Lewes), A27 and A259 Pevensey to the county boundary with Kent via Bexhill, Hastings, and Rye). The high traffic volumes on these roads reflect their role in providing strategic connectivity within the county, to London and international gateways - including Gatwick Airport - and to other parts of the south east region. Demand (high traffic flows) along these corridors is similar during the morning and evening peak periods, however these roads face significant delays during peak periods due to high demand. There are opportunities to improve these routes to provide faster journeys for bus, safer routes for active travel users, to address safety concerns and improve journeys for all users.

2.7.2 The predominant mode of access to the airport is by car due to the rural nature of the county, and the poor public transport services available between East Sussex and the airport.

2.7.3 The A22/A264 is used as a key route for accessing Gatwick Airport by car and the proposed expansion may result in increases in road traffic noise in Wealden District. However, another key route is by travelling west from Wych Cross through Turners Hill and the Ashdown Forest.

Section 3 – POLICY CONTEXT

3.1 Overview

This section outlines the National and Local Policy relevant to East Sussex in respect of this DCO and the specific topic areas of the NRP that affect DCO are highlighted under each specific National and Local Policy.

National Policy

3.2 National Policy Statements (NPS)

3.2.1 Applications for DCOs are generally decided in accordance with NPSs. We consider there to be two NPSs which are relevant to this DCO and the impacts on East Sussex. These are for airports and national networks and are explained further below in 3.3 and 3.4.

3.3 Airports National Policy Statement (ANPS) (June 2018)

3.3.1 The ANPS is more directly related to the delivery of additional airport capacity through the provision of the Heathrow Northwest Runway project, for which project only it has effect for the purposes of section 104 of the Planning Act 2008. However, Paragraph 1.41 states the ‘Secretary of State considers that the contents of the Airports NPS will be both important and relevant considerations in the determination of such an application [i.e. a non-Heathrow Northwest Runway], particularly where it relates to London or the South East of England’.

3.3.2 Para1.39 of the ANPS states ‘...the Government has confirmed that it is supportive of airports beyond Heathrow making best use of their existing runways. However, we recognise that the development of airports can have positive and negative impacts, including on noise levels. We consider that any proposals should be judged on their individual merits by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts.’

3.3.3 Therefore, although not directly applicable to the proposed DCO at Gatwick Airport, the ANPS does provide guidance on the principle of development for new runway capacity and infrastructure at Gatwick Airport, and is considered an ‘important and relevant consideration’ that the decision maker should take into account.

Traffic and Transport

3.3.4 The ANPS 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’, in addition to ‘the number of journeys made to airports by sustainable modes of transport maximised as much as possible’ which ‘should be delivered in a way that minimises congestion and environmental impacts, for example on air quality’ (para 5.5).

3.3.5 The implications should be assessed ‘using the WebTAG methodology stipulated in the DfT guidance, 136 or any successor to such methodology’ (para 5.10). It stipulates that ‘highway and transport authorities’, are consulted as appropriate, on the assessment and proposed mitigation measures and that this should distinguish between the construction and operational project stages for the development (para 5.10).

Noise

3.3.6 The impact of noise from airport expansion is a key concern for communities affected. The ANPR states that 'High exposure to noise is an annoyance, can disturb sleep, and can also affect people's health. Aircraft operations are by far the largest source of noise emissions from an airport' (para 5.44). The ANPR requires a noise assessment for any period of change in air traffic movements and should form part of the environmental statement (para 5.52). It requires that the proposed development accord with statutory obligations for noise and that due regard is given to national policy on aviation noise, relevant sections of the NPS for England, the NPPF and the Government's associated planning guidance on noise (para 5.67).

3.3.7 The policy statement states that consent should not be granted unless the proposals will meet the aims for the effective management and control of noise, namely, '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' (para 5.68).

Air quality

3.3.8 The ANPS recognises that air quality impacts are generated by all types of infrastructure development to varying degrees, the geographical extent and distribution can cover a large area (para 5.28), and that increases in emissions of pollutants in relation to the scheme can contribute to adverse impacts on human health and on the natural environment.

3.3.9 It states that the SoS 'will consider air quality impacts over the wider area likely to be affected, as well as in the vicinity of the scheme' and 'in order to grant development consent, the SoS will need to be satisfied that, with mitigation, the scheme would be compliant with legal obligations that provide for the protection of human health and the environment' (para 5.42). In relation to surface access, access to the airport by road, rail and public transport should be delivered in a way that minimises congestion and environmental impacts, for example on air quality (para 5.5).

Greenhouse gases (carbon)

3.3.10 Paragraph 5.74 in the ANPS recognises that the carbon impact of airport development falls into four areas, notably air transport movements.

3.3.11 In para 5.76, the ANPS sets out the considerations that need to be considered for assessing GHG emissions, including the quantification of impacts. Para 5.76 requires the Applicant to provide evidence of the carbon impact of the project; quantify GHG impacts before and after mitigation to show the impacts of the proposed mitigation; and split emissions into traded and nontraded sector.

3.3.12 Furthermore, the ANPS (para 5.77) states that the Applicant's assessment should seek to quantify impacts including emissions from surface access due to: airport and construction staff; freight and retail operations; construction site traffic; airport passengers/visitors; and airport operations. It is stated that this should be undertaken in both a 'Do-Minimum' and 'Do-Something' scenario for the opening, peak operation and worst-case scenarios.

3.3.13 It is suggested under para 5.78 that the Examining Authority (ExA) should be satisfied that mitigation measures are acceptable and provide a list of suggested measures

for inclusion, achieved via 'a management /project plan may help clarify and secure mitigation at this stage'.

3.3.14 Para 5.82 sets out that the ExA must be satisfied the Applicant has addressed that "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."

3.3.15 The ExA's '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' (para 5.83).

Health and wellbeing

3.3.16 The ANPS acknowledges in para 4.70 that 'The construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life'. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests. It states that 'any environmental statement should identify and set out the assessment of any likely significant health impacts' (para 4.72) and the applicant should identify measures to avoid, reduce or compensate for adverse health impacts as appropriate including the cumulative impact on health (para 4.73).

3.4 National Policy Statement for National Networks (NNNPS) (December 2014)

3.4.1 The applicant's proposals are considered to include highway-related development amounting to NSIPs within the Planning Act 2008 regime and are considered to impact on the road and rail networks in East Sussex. The NNNPS sets out the need for, and Government's policies to deliver, development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. Therefore, the NNNPS, is a key consideration in the determination of the application for development consent.

Greenhouse gases (carbon)

3.4.2 Para 5.16 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." Moreover, para 5.17 explains that any carbon impacts should be included at the options appraisal stage and as part of the EA for the DCO application, with applicants providing evidence of the carbon impacts and assess them against the carbon budgets.

3.4.3 Para 5.18 states that '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.'

3.4.4 Furthermore, the ExA should be satisfied under paragraph 5.19 that: 'Evidence of appropriate mitigation measures in both design and construction should be presented. The SoS will consider the effectiveness of such mitigation measures in order to ensure that.... 'the carbon footprint is not unnecessarily high' and the 'adequacy of the mitigation measures relating to design and construction will be a material factor in the decision-making process'.

3.4.5 The draft NPSNN (due to be published 2024) provides a more transparent framework for assessing the carbon impact of NSIPs within the context of the Government's binding carbon targets and net zero.

3.4.6 It sets out the principles on which individual projects should be assessed, including the environmental impacts proposed schemes, and requirements regarding need for whole-life carbon assessments of projects and Carbon Management Plans. However, these details will be confirmed once the NPSNN is published.

Health and wellbeing

3.4.7 The NNNPS echoes the ANPS in requiring the applicant to identify measures to avoid, reduce or compensate for adverse health impacts as appropriate including the cumulative impact on health (para 4.82).

3.5 Aviation Policy Framework (DfT, March 2013)

3.5.1 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 while considering important issues such as aircraft noise and climate change with the aim (see Para 5) to maintain 'a balance between the benefits of aviation and its costs, particularly its contribution to climate change and noise'.

Traffic and Transport

3.5.2 The DfT requires all proposals for airport development to be 'accompanied by clear surface access proposals which demonstrate how the airport will ensure easy and reliable access for passengers, increase the use of public transport by passengers to access the airport, and minimise congestion and other local impacts' (para 5.11), and that developers should pay the costs of upgrading or enhancing road, rail or other transport networks or services where there is a need to cope with additional passengers travelling to and from expanded or growing airports' (para 5.12).

Noise

3.5.3 This states that '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' (para 3.12). Where changes are planned which adversely impact the noise environment, the Government expects airports to make particular efforts to mitigate noise - particularly in the case of proposals for new airport capacity, changes to operational procedures, or where an increase in movements is expected to have a noticeable impact on local communities (para 3.28).

3.5.4 Within the Framework the Government recognises that the costs on local communities are higher from aircraft noise during the night and is widely regarded as the least acceptable aspect of aircraft operations. It expects the aviation industry to make extra efforts to reduce and mitigate noise from night flights including minimising the demand for night flights where alternatives are available (para 3.34). The Framework states that 'before taking decisions on any future new airport capacity, the Government will want to have a thorough understanding of the local environmental impacts of any proposals' (para 3.54).

Air quality

3.5.5 In the Framework the policy on air quality is to seek improved international standards to reduce emissions from aircraft and vehicles, and to work with airports and local authorities (as appropriate) to improve air quality. It recognises sources of air pollution around airports include aircraft engines, airport related traffic on local roads and surface vehicles at the airport. It outlines that NO_x emissions from aviation-related operations reduce rapidly beyond the immediate area around the runway, but that ‘road traffic remains the main problem with regard to NO_x in the UK, and as large generators of surface transport journeys airports share a responsibility to minimise the air quality impact of these operations and to work with the Government, its agencies and local authorities to improve air quality (para 3.51).

3.6 Flightpath to the Future (DfT, May 2022)

3.6.1 Sets out a strategic framework for the aviation sector for a sustainable future, including supporting growth in capacity where it is justified while embracing innovation for a sustainable future including setting a course to achieve Jet Zero.

3.7 Beyond the Horizon: The Future of UK Aviation – Making Best Use of Existing Runways (MBUER) (DfT, June 2018)

3.7.1 Sets out policy support for airports making best use of existing runways. Of relevance for East Sussex, is para 1.29 which states that ‘the development of airports can have negative as well as positive local impacts, including on noise levels’ and states that proposals should take ‘careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations’

3.8 Jet Zero Strategy: Delivering net zero aviation by 2050 (DfT, July 2022)

3.8.1 Sets out a framework and plan for how government seeks to achieve net zero aviation by 2050, including setting targets for CO₂ emissions reduction via key policy measures. The strategy states (para 2.27) that Government will continue to ‘support sustainable airport growth where it is justified’, however, this needs to be ‘where it can be delivered within our environmental obligations’ (para 3.61). Also, applicants should provide ‘sufficient detail regarding the likely environmental and other effects of airport development to enable communities and planning decision-makers to give these impacts proper consideration’ (para 3.62).

3.8.2 The plan relies largely on technologies that are yet to be proven at scale. In April 2023, the Climate Change Committee, stated that ‘The Jet Zero Strategy approach is high risk due to its reliance on nascent technology’. There is not a policy framework in place to ensure that emissions reductions in the aviation sector occur if these technologies are not delivered on time and at sufficient scale. This is of concern.

Greenhouse gases (carbon)

3.8.3 The Government has committed to implementing the ‘high ambition scenario’ within the Jet Zero Strategy. This 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.

3.9 Transport Decarbonisation Plan (DfT, July 2021)

3.9.1 Sets out the governments commitments and the actions needed to decarbonise the transport system in the UK. It sets out the pathway to net zero transport in the UK, the wider benefits that net zero transport can deliver, and includes the principles that underpin the approach to delivering net zero transport. This is relevant to East Sussex as the NRP would impact on the road network by increasing car journeys to the airport due to poor public transport links to Gatwick.

3.10 National Planning Policy Framework (NPPF) and National Planning Practice Guidance (PPG)

3.10.1 The NPPF is considered to be an important and relevant consideration in decision making on NSIPs, particularly where an important and relevant local impact has been identified but has not been addressed within the relevant NPSs. PPGs give more detail as to how the government's planning policies are expected to be applied, by specific subject area.

Traffic and Transport

3.10.2 The NPPF requires that 'Transport issues should be considered from the earliest stages of plan-making and development proposals' so that 'the potential impacts of development on transport networks can be addressed' so that opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised' (para 108), and appropriate opportunities to promote sustainable transport modes can be, or have been, taken up (para 114).

3.10.3 Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, should be mitigated to an acceptable degree (para 114). Development should encourage the use of public transport (para 116).

3.10.4 An increase in car journeys across Ashdown Forest would negatively exacerbate the existing impacts on the Special Protection Area. The NPPF requires that harm to biodiversity, from development, should be avoided or adequately mitigated and should not result in the loss or deterioration of irreplaceable habitats unless there are wholly exceptional reasons (para 186).

Noise

3.10.5 The NPPF requires that decisions should contribute to and enhance the natural and local environment by preventing development from contributing to unacceptable levels of noise pollution (para 180) and should 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 (para 191).

3.10.6 The South Downs National Park, High Weald AONB and Ashdown Forest Special Protection Area are located in East Sussex and the NPPF requires tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value, and for this reason, should be identified and protected (para 191).

3.10.7 Planning Practice Guidance for noise states that ‘noise needs to be considered when development may create additional noise or would be sensitive to the prevailing acoustic environment’ (para 1). It encourages planning authorities and airport operators to work together to develop mitigation measures that are proportionate to the scale of the impact and states that ‘development that would increase air movements may require an Environmental Impact Assessment’. In considering any additional or new impacts from that expansion applicants are required to engage and consult with local authorities from the outset.

Air quality

3.10.8 The NPPF requires that decisions prevent development from contributing to unacceptable levels of air pollution and should, wherever possible, help to improve local environmental conditions such as air quality (para 180), and that ‘opportunities to improve air quality or mitigate impacts should be identified’ (para 192). It also requires that ‘the environmental impacts of traffic and transport infrastructure be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains (para 108).

Health and wellbeing

3.10.9 The NPPF states that planning decisions ‘should aim to achieve healthy, inclusive and safe places’ (para 96) and ensure that new development takes into account ‘the likely effects of pollution on health, living conditions and the natural environment’ as well as the potential sensitivity of the ‘wider area to impacts that could arise from the development’ (para 191). The ExA should be satisfied, therefore, that the applicant has sufficiently taken into account the likely effects of the development on health and wellbeing on local communities in East Sussex.

Landscape, Townscape and visual impacts (dark skies)

3.10.10 Ensure that new development takes into account the likely effects (including cumulative) of pollution on the natural environment, as well as the potential sensitivity of the wider area to impacts that could arise from the development, and should ‘limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation’ (para 191), and great weight should be given to conserving and enhancing landscape and scenic beauty in Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues (para 182).

3.11 Noise policy statement for England (NPSE)

3.11.1 The NPSE for England sets out the long term vision of government noise policy to effectively manage noise, including ‘environmental noise’ which includes noise from transportation sources, within the context of Government policy on sustainable development in order to promote good health and a good quality of life.

Noise

3.11.2 The NPSE aims to avoid significant adverse impacts on health and quality of life, including from “environmental noise” which includes noise from transportation sources. It recognises that noise exposure can cause annoyance and sleep disturbance both of which impact on quality of life and can give rise to adverse health effects (para 2.14).

Regional Policy

3.12 Transport for the South East (TfSE) Transport Strategy (June 2020)

3.12.1 This strategy is supported by local transport authorities, district/borough councils and wider key stakeholders. Its mission is to grow the economy, with an ambition to transform the quality of transport and door-to-door journeys for the South East's residents, businesses and visitors.

3.12.2 Challenges identified in the plan include connectivity gaps in the Gatwick area, and that the future transport network may need to provide for longer distance commuter trips within the South East area. The strategy notes the importance of Gatwick as an International Gateway and its relationship with freight, and as such has been included in TfSE's Freight Logistics and Gateway Review.

3.12.3 The strategy notes the pressure on the parts of the M25 and A27/A259/A2070 corridors that lie to the north and south of Gatwick Airport. The Major Road Network therefore supports a significant portion of interurban traffic on the South East area's east-west corridors.

3.12.4 In terms of rail, orbital connectivity to Gatwick Airport from the east and the west is poor in comparison to the radial connectivity to the airport from the north and the south, and the Strategy supports the introduction of more direct east-west (rail and coach) services to Gatwick Airport (page 77). Improvements in public transport access to Gatwick Airport initiatives that will help address key international gateway and freight journey challenges have been identified as a strategic priority (page 88 and 98).

3.13 Transport for the South East (TfSE) Strategic Investment Plan (SIP) (March 2023)

3.13.1 The SIP has a thirty-year vision for the region, and supports government priorities to decarbonise the transport system, improve public health outcomes, reduce congestion and improve road safety, level up left-behind communities and facilitate sustainable economic growth in the south east.

3.13.2 The vision is for the south east to be a leading global region for net zero carbon, sustainable economic growth where integrated transport, digital and energy networks have delivered a step-change in connectivity and environmental quality. A high-quality, reliable, safe, and accessible transport network will offer seamless door-to-door journeys enabling our businesses to compete and trade more effectively in the global marketplace, improve public health outcomes, and give our residents and visitors the highest quality of life.

3.13.3 The SIP identifies transport infrastructure improvements, and in specific regard to the NRP this includes those relating to road and rail (see package of intervention p.52), including package L5 which is for the A22 Corridor Rural Bus Service Enhancements between Uckfield and East Grinstead.

Local Policy

3.14 Wealden District Council

3.14.1 Wealden District Council (WDC) is the local planning authority within East Sussex considered to be within the zone of influence of the application. The following policies, although not directly related to the Gatwick DCO, are considered relevant:

Current Development Plan

- Wealden District Core Strategy Local Plan (February 2013):
 - Spatial planning objective SPO1
 - Spatial Planning Objective SPO7
 - WCS7 Effective Provision of Infrastructure

Traffic and Transport

3.14.2 SPO1 of the Wealden District Core Strategy Local Plan aims to protect the Ashdown Forest as an internationally important site as well as other designated areas and distinct landscapes. Policy WCS7 requires development that creates the need to provide additional or improved infrastructure to mitigate its impact.

- Saved policies contained in the Wealden District Local Plan (1998):
 - Policy TR3 Traffic impact of new development
 - Policy EN27 Adverse impact on the neighbourhood

3.15 High Weald AONB Management Plan 2019-2024

Traffic and Transport

3.15.1 Objective G3 of the High Weald AONB Management Plan requires the consideration of AONB characteristics in climate change mitigation and adaption strategies with particular attention paid to supporting alternative sustainable transport options.

Noise

3.15.2 Objective OQ4 aims to protect and promote the perceptual qualities that people value in the High Weald AONB by acting to remove and reduce inappropriate noise intrusion, and support further study into the impacts of noise, such as aircraft noise and traffic, on quiet enjoyment, and to recognise and act to minimise the impact of traffic noise and congestion on rural lanes.

Air quality

3.15.3 The vision of the High Weald AONB Management Plan is for a landscape which displays healthy natural systems including clean air. Objective FH3 requires strategies to be implemented to reduce nutrient input via air pollution to vulnerable habitats such as heathland, which for East Sussex includes Ashdown Forest.

Greenhouse gases (carbon)

3.15.4 The vision of the High Weald AONB Management Plan is a landscape which is embracing a low-carbon future with green technologies and non-fossil fuel transport. Objective G3 requires AONB characteristics to be considered in climate change mitigation and adaption strategies, with particular attention paid to supporting alternative sustainable transport options.

Landscape, Townscape and visual impacts (dark skies)

3.15.5 Objective OQ4 of the High Weald AONB Management Plan is to protect and promote the perceptual qualities that people value. It considers that to achieve this the

special qualities people value, such as dark skies, should be recognised and taken account of in AONB management and states that ‘No loss of dark skies’ is an indicator of success.

3.15.6 The ExA should be satisfied, therefore, that the applicant has sufficiently taken into account the likely light pollution effects an increase in night flights will have, particularly on the South Downs National Park and High Weald AONB, and any other protected areas.

3.16 South Downs Local Plan (2014 -2033)

3.16.1 Of relevance to East Sussex is Objective 1: ‘To conserve and enhance the landscapes of the National Park’ and Strategic Policy SD8: Dark Night Skies.

3.17 East Sussex Local Transport Plan 3 (LTP3) (2011-2026)

3.17.1 Sets out how we plan to improve transport and maintain the roads. Transport objectives set out in Chapter 2 of the plan of relevance to the NRP include:

- Improve strategic and local connectivity of communities
- Reduce congestion by improving the efficiency of the transport network and encouraging greater use of sustainable modes of transport.
- Improve maintenance and efficient management of the transport network
- Reduce greenhouse gas emissions, local air pollution and noise from transport
- Increase the resilience of transport infrastructure and services to the effects of climate change
- Improve access to jobs, services and leisure

3.18 Draft East Sussex Local Transport Plan 4 (LTP4)

3.18.1 The draft LTP4 sets out the strategy for the future direction for planning and providing the transport infrastructure, services and policy framework needed to achieve net zero targets, healthy places and support for a more equitable, inclusive, and sustainable economy within our coastal towns, market towns and villages in more rural areas.

3.18.2 The Strategy includes a vision which is focussed on *‘An inclusive transport system that connects people and places’ and is supported by a series of objectives. Those that are relevant in respect of GAL’s NRP include:*

- Delivering safer and accessible journeys
- Decarbonise transport
- Support sustainable economic growth
- Strengthen the resilience of our transport networks

3.18.3 LTP4 includes a series of policies which will support the delivery of the strategy. A number of these specifically relate to Gatwick Airport, specifically surface access and the opportunities for improvements. Chapter 7. Integrated and accessible transport for all Policy C2: Bus and coach, highlights that the county has previously been part of commercial national coach networks. Those wishing to travel by coach need to travel to Brighton, West Sussex (A23 corridor – Hickstead or Gatwick) or Kent for coach connections towards London and other destinations. Therefore, one of the policy

components associated with this is ‘Supporting opportunities to reinstate commercial coach operations into the county to support access to these locations’.

3.18.4 LTP4 Chapter 8. Keeping East Sussex connected, highlights the importance of ‘Maintaining, enhancing or introducing cross border bus connectivity to our neighbouring authorities and their communities, for example links to Brighton, Gatwick, and Tunbridge Wells, with Policy D1: Strategic connectivity including the need for ‘Supporting improvements on regional and national corridors to improve connectivity to the rest of the UK and abroad for freight and passengers’ and reinforced in Policy D2: Freight and international gateways, through opportunities to ‘Support improvements to public transport services to the Port of Newhaven and Gatwick Airport’.

3.18.5 The LTP4 Implementation Plan also includes the schemes; ‘Gatwick Airport-Crowborough bus enhancements (indicative route along A264)’ and Gatwick Airport-Uckfield bus enhancements (indicative route along A264 and A22), which are included as mitigation measures outlined in table 5.

3.18.6 As part of the LTP 4 we are updating our existing Rail Strategy (2013) and developing our first Freight Strategy. Both are relevant to Gatwick Airport in terms of getting passengers (for leisure and business) and employees to and from the airport by rail, and the freight impacts from journeys made to and from the airport by goods vehicles. This process has commenced, and we are looking to go out to consultation in Autumn 2024.

3.19 Bus Service Improvement Plan for East Sussex County Council (BSIP) (2021)

3.19.1 The BSIP sets out ESCCs plans and supporting policies to improve bus services, working in close cooperation with our neighbouring Local Transport Authorities and with stakeholders, while addressing the requirements of National Bus Strategy ‘Bus Back Better’.

Traffic and Transport

3.19.2 Para 5.12 outlines the ESCC approach to planning transport, which is to consider fully the ‘doorstep to destination’ concept, which will involve multi-modal travel for local and further afield trips. Rail services between London, Gatwick Airport and the south coast, including Brighton, West Sussex and East Sussex, are among the busiest and most congested in the country, including the lines serving Eastbourne, Bexhill and Hastings as well as the London-Tunbridge Wells-Hastings line. A key part of what is being delivered through the BSIP is improved bus services linking people to the Brighton Mainline and further bus service enhancements and provision would be required with increased capacity and patronage of the airport.

3.20 East Sussex Economy Recovery Plan: East Sussex Reset (September 2020)

3.20.1 Aims to build sustainable prosperity for our businesses, voluntary, community and social enterprise sectors, and support residents to access new opportunities that drive economic recovery and resilience. This includes retaining our local skills, supporting employment and growing an agile workforce with greater skills levels.

Socio economics

3.20.2 Mission 2 of the East Sussex Economy Recovery Plan is 'Building skills, creating jobs' with the aim to 'retain our local skills, support employment and grow an agile workforce with greater skills levels'.

3.21 Emerging East Sussex Economic Strategy (March 2024)

3.21.1 A new East Sussex Economic Strategy is currently being developed and will be published for consultation during 2024. It will provide a framework for partners to collaborate in the medium and short term through a shared vision for East Sussex. It will promote and enable shared understanding of East Sussex's strengths, challenges and opportunities, and will provide the strategic backing for competitive funding bids to unlock increased funding from central government.

3.21.2 It will focus on making the East Sussex economy productive, which often requires efficient transport links, sustainable, and inclusive, placing economic opportunity at the heart of community renewal and prosperity. Business is central to future economic prosperity so by helping businesses to be more productive we can help ensure economic gains are captured locally.

3.22 East Sussex Cultural Strategy (2013-2025)

3.22.1 Identifies reasonable steps which can be taken to better understand, support and grow the cultural sector in East Sussex, which includes (Priority 3) developing and promoting well packaged cultural tourism offers which celebrate the identity of East Sussex, raise its profile and attract more visitors and businesses to the County. In order to do this the strategy recognises that ESCC needs to increase the visibility of the County as a cultural destination, ensuring that images of our landscape and cultural institutions are marketed widely.

SECTION 4 – ASSESSMENT OF LOCAL IMPACTS

4.1 Overview

4.1.1 This section outlines the key impacts that the GAL NRP will have on the county of East Sussex in respect of the following topic areas:

Local Impact Topic	Reference
Table 1: Noise and vibration	N1 - Aircraft noise on local communities N2 - A22 road traffic noise
Table 2: Socio-economics	S1 - Impact on employment and skills and meeting local needs S2 - Increased tourism to East Sussex
Table 3: Greenhouse gases (carbon)	C1 - Whole-life carbon assessment C2 - Under-reporting aviation emissions C3 - Assessment methodology C4 - Import of construction materials C5 - Use of a PAS 2080:2023 certified Principal Contractor C6 – EV charging infrastructure provision C7 – BREEAM Excellent certification C8 - Offset of emissions (vegetation planting)
Table 4: Air quality	A1 - Traffic emissions (construction) A2 – Traffic emissions (Air Quality Action Plan) A3 – Aviation emissions
Table 5: Traffic and transport	T1 – Congestion (bus services mitigation) T2 – Car journeys – Ashdown Forest T3 – Rail travel to Gatwick from East Sussex T4 – Network Rail independent modelling T5 - Additional traffic on local roads

	<p>T6 – Surface access targets not being met</p> <p>T7 - Additional traffic on local roads if mode share targets not met</p> <p>T8s – Electric Vehicle (EV) charging</p>
Table 6: Health and wellbeing	<p>H1 – Impacts on health and Health Impact Assessment (HIA)</p> <p>H2 – Noise and vibration impacts on local communities – vulnerable groups</p>
Table 7: Landscape, Townscape and Visual (dark skies)	H3 – Dark skies

4.1.2 The topic-based text and tables (1-7) below set out the description of the impact on the county, whether this would be during construction or the operation of the NRP, or both, alongside a statement of the impact, in terms of whether this would be positive, neutral or negative.

4.1.3 Where negative impacts are identified, mitigation is recommended to, as far as possible, remedy them. In this context the Authorities are using the term ‘mitigation’ in its broadest sense and so it also includes compensatory or offsetting measures (where appropriate).

4.2 Noise (and vibration)

4.2.1 East Sussex is around 15 miles from the Gatwick Airport and has two key flight paths - approaching aircraft to both the 08 and 26 runways overfly Wealden District, and departures along the 08SFD (2) and 26WIZ (3) routes overfly Wealden District. These routes will experience an increase in aircraft movements as a result of the proposed expansion. Aircraft noise contours for the worst-case 2032 scenario [APP-064] do not stretch as far as Wealden so it is outside the Lowest Observed Adverse Effect Level. Consequently, although aircraft noise is audible in Wealden District, it is not of sufficient magnitude to result in adverse effects on health and quality of life. However, we remain cautious of the impacts of aircraft noise on local communities.

4.2.2 Work undertaken by ESCC’s consultants has had specific regard to the impacts of noise for Wealden and have established that Wealden District is sufficiently far from Gatwick Airport such that there will be no noise and vibration effects from construction activities, or ground-based airport activities.

4.2.3 Despite this, ESCC is concerned about the prospect of additional aircraft operating between 23:00 and 06:00 and these cumulative impacts on local communities. As explained below in Table 1, ESCC considers Requirement 19(3) (airport operations) needs to be amended to address ESCC's concerns.

Table 1 – Noise impacts

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
N1	Aircraft noise on local communities	O	Negative	<p>Although aircraft noise is audible in Wealden District, it is not of sufficient magnitude to result in adverse effects on health and quality of life. Whilst we acknowledge this assessment, we remain cautious of the impacts of aircraft noise on local communities, particularly in Wealden – and wish for our concerns to be recorded in the event unacceptable levels of noise are recorded in the future.</p> <p>Of greatest concern would be if aircraft operated on the northern runway between the hours of 23:00 and 06:00. ESCC notes Requirement 19(3) provides that the northern runway must not be routinely used between the hours of 23:00 – 06:00; however, it can be</p>	<p>National Planning Policy Framework Paragraph 180, 191</p> <p>Planning Practice Guidance “Noise”</p> <p>The Noise Policy Statement for England</p> <p>Wealden Local Plan (1998) ‘saved’ Policy DC16 <u>Development in the Countryside - Adopted Wealden Local Plan</u></p>

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
				<p>used between those hours when the southern runway is not available for any reason.</p> <p>ESCC is not satisfied with the requirement and considers “routinely” should be omitted because it is vague and so unlikely to satisfy the test of precision in <i>Circular 11/95: Use of conditions in planning permission</i>. In addition, the term “for any reason” is too broad and ESCC 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.</p> <p>In the light of the above, ESCC considers Requirement 19(3) should be redrafted as follows –</p> <p>“The northern runway (Work No.1) must not be used</p>	<p>Wealden Local Plan (1998) ‘saved’ Policy EN27 <u>Environment - Adopted Wealden Local Plan</u></p> <p><u>The High Weald AONB Management Plan 2019-2024</u> Objective OQ4</p>

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
				between the hours of 23:00 – 06:00 but may be used between these hours where the southern runway (being the airport’s main runway at the date of this Order is made) is not available for use because of planned engineering and maintenance works”.	
N2	A22 road traffic noise	O	Negative	<p>Providing alternative public transport options to private car use would reduce the number of vehicles on the road network to Gatwick Airport, and therefore reduce road traffic noise.</p> <p>For public transport improvement (mitigation) please refer to Table 5 (T1) of the LIR.</p>	<p>East Sussex Local Transport Plan 3 paragraph 3.11</p> <p>Draft East Sussex Local Transport Plan 4 Objective 2</p>

4.3 Socio-economics

4.3.1 As an international gateway, Gatwick Airport serves both international passenger and freight markets. Areas of deprivation and health inequalities within the county reflect a combination of limited access, and includes opportunities for labour market progression, access to services (and a range of complex factors linked with the housing market and health conditions). Gatwick's NRP should consider the circumstances of all in East Sussex, with specific attention given to aiding the most disadvantaged to access better jobs and reducing social isolation. Wider social outcomes, including quality of life outcomes for residents, should be considered in addition to economic gains.

4.3.2 East Sussex County Council along with West Sussex County Council will be establishing a Local Visitor Economic Partnership, and Brighton & Hove City Council will be an informal partner to this. This partnership will strengthen opportunities to promote the south east and all it has to offer.

Table 2 – Socio- economic impacts

Ref number	Description of impact	Construction / Operation	Negative/ Neutral / Positive	Required mitigation and how to secure it	Policy context
S1	Impact on employment and skills and meeting local needs.	O	Currently unknown	<p>Paragraph 1.1.7 of the Employment, Business and Skills Strategy (ESBS) states its activation would be set out within an Implementation Plan which “would describe, in detail, how GAL will collaborate with partners to deliver the ESBS. The Implementation Plan would be developed pursuant to the agreement of ESBS mitigations. The ESBS Implementation Plan will be secured via the Section 106 agreement”. We would suggest this is made a condition of the DCO should it receive consent from the Secretary of State.</p> <p>It is imperative that ESCC has access to the Implementation Plan to be able to determine whether the proposals will have a negative, neutral or positive impact. The ESBS currently lacks detail and does not, for example, mention initiatives tailored for local needs.</p>	East Sussex Economy Recovery Plan: East Sussex Reset East Sussex Economy Recovery Plan: East Sussex Reset

				<p>ESCC notes from paragraph 5.3.26 of the ESBS that GAL is currently working with “the Coast to Capital LEP Careers Hub to ensure young people in [GAL’s] region have access to employer insight and understand the potential opportunities open to them”. ESCC is pleased to note GAL’s work with the Careers Hub and requests confirmation as to how that work will continue and be secured in the Implementation Plan.</p> <p>ESCC is interested in how the ESBS will be governed and considers it would be helpful if the Implementation Plan provided was governed by a multi-agency board.</p> <p>Commitment required to the setting up of a multi-agency board for the ESBS. This is to ensure East Sussex’s needs and requirements are taken into consideration when developing business, skills and employment opportunities, so that these benefit neighbouring authorities in addition to</p>	
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				adjoining authorities. Suggest this is made a condition of the DCO. This will need to take into account the East Sussex Economic Strategy currently being developed.	
S2	Increased tourism to East Sussex	O	Positive	Promoting tourism is mentioned in the ESBS. ESCC would encourage GAL to ensure there is a sustained promotion of East Sussex at the airport to support the visitor economy. ESCC require continued discussions with GAL to see how this can be achieved, and for any requirements to be included in the ESBS Implementation Plan.	East Sussex Cultural Strategy 2013 – 2025 East Sussex Economy Recovery Plan: East Sussex Reset

4.4 Greenhouse gases (Carbon) impacts

4.4.1 Climate change is largely related to global emissions of greenhouse gas emissions, principally carbon dioxide emissions from fossil fuel combustion. The impacts of climate change on East Sussex are now becoming apparent and expected to increase significantly: an increase in droughts and overheating in the summer, wetter winters, an increase in extreme weather events, and sea-level rise along our coastline². Under the Climate Change Act (2008) (as amended by the Climate Change Act 2008 (2050 Target Amendment) Order 2019), the Government has set a legally binding target to reduce greenhouse gas emissions in the UK of at least 100% by 2050, against a 1990 baseline. The East Sussex Environment Board has developed a climate change roadmap setting out how the county will play its part in meeting this target.

4.4.2 The proposed expansion at Gatwick Airport will see emissions rise significantly over the base case, largely due to increased aircraft emissions. Construction, operation (from airport buildings and operations) and traffic emissions (from surface access) will also be significant. GAL's proposed mitigation measures focus on reducing emissions from airport buildings and operations and facilitating low-carbon surface access to the airport.

4.4.3 GAL consider aircraft emissions to be outside of their direct control and refers to the Government's Jet Zero (2022) strategy. On this basis, East Sussex County Council, as a (neighbouring) local authority, is focusing specifically on the impacts of carbon emissions rather than climate change impacts of the proposal.

² Climate Change impacts and adaptation report, Environment Agency, 2018).

Table 3 - Greenhouse gases (Carbon)

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
C1	The whole-life carbon assessment presented by the GAL in the Greenhouse Gases Chapter [APP-041] of the Environmental statement is non-compliant with the IEMA GHG assessment methodology defined in the ES, which specifies <i>“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”</i> .	C and O	Negative	Under the IEMA GHG Assessment methodology used in the Environment Statement (ES), GAL 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%.	NA The Airports National Policy Statement Aviation Policy Framework
C2	GAL has not reported well-to-tank (WTT) emissions, which has resulted in the Applicant under-reporting aviation emissions by around 20%, which would result in 1,106,530tCO ₂ e not being accounted for in 2028 alone during the most carbon-intensive year, where 5.327 MtCO ₂ e was estimated to be released.	O	Negative	Excluding WTT is non-compliant with the globally recognised GHG Protocol Corporate Accounting Standard, the UK Government’s carbon accounting methodology and the IEMA GHG Assessment methodology used in the ES. Under the IEMA GHG Assessment methodology used in the ES, the Applicant must update the assessment to evidence that exclusions are <1% of total emissions and	NA The Airports National Policy Statement Aviation Policy Framework

				where all such exclusions total a maximum of 5%.	
C3	There were inconsistencies identified in GAL's assessment methodology since it was identified that GAL in the ES did not account for WTT emissions during construction.	C	Negative	<p>Excluding WTT is non-compliant with the globally recognised GHG Protocol Corporate Accounting Standard, the UK Government's carbon accounting methodology and the IEMA GHG Assessment methodology used in the ES.</p> <p>Under the IEMA GHG Assessment methodology used in the ES, the Applicant must update the assessment to evidence that exclusions are <1% of total emissions and where all such exclusions total a maximum of 5%.</p>	<p>NA</p> <p>The Airports National Policy Statement</p> <p>Aviation Policy Framework</p>
C4	GAL did not properly account for the impact of construction materials being imported from outside the UK. While GAL used the RICS guidance to estimate emissions from transport no global shipping of materials and equipment delivered to the Scheme was accounted as per RICS guidance.	C	Negative	<p>GAL 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 Carbon Action Plan under Appendix 5.4.2 in the ES [APP-091].</p>	<p>NA</p> <p>The Airports National Policy Statement</p> <p>Aviation Policy Framework</p>
C5	GAL only proposed using a PAS 2080:2023 certified Principal Contractor	C	Negative	<p>One of PAS2080:2023's foundational principles is that</p>	<p>NA</p>

	and did not propose implementing PAS 2080:2023 during the early design phases where there is the opportunity to save most of the carbon.			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, GAL should implement PAS 2080:2023 with immediate effect within the design process to maximise carbon-saving opportunities.	Aviation Policy Framework PAS 2080 (2023) Global Standard
C6	Under Appendix 5.4.1 the ES (Surface Access Commitments) [APP-090] GAL does not set out any commitments to support providing infrastructure or services to help decarbonise surface transport emissions.	O	Positive	GAL should provide passive provision of charging infrastructure within the Airport to support the anticipated uptake of electric vehicles.	NA Emerging East Sussex Electric Vehicle Strategy Local Transport Plan 4
C7	ESCC expect new non-domestic buildings to achieve BREEAM Excellent (for water and energy credits) where technically and financially viable. Currently, GAL only proposes to do a cost-benefit study, including an analysis BREEAM.	C	Negative	If concluded technically and financially viable in the cost-benefit study, ESCC expect that GAL will implement BREEAM Excellent certification (for water and energy credits) into the scheme.	NA
C8	GAL details in the Carbon Action Plan [APP-091] commitments to use internationally recognised offsetting schemes (CAP Para 1.1.4). Within the CAP GAL also commits to investment in	O	Positive	GAL should explore options to support offsetting through planting local vegetation by funding the Local Nature Recovery Strategy to help offset	NA

	carbon removal mechanisms in preference to commonly used offsetting mechanisms. However, no formal commitment has been made to support local vegetation planting to help offset emissions associated with the scheme.			the scheme's emissions and enhance biodiversity/ecosystem health and nature recovery.	
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4.5 Air Quality Impacts

4.5.1 East Sussex has two Air Quality Management Areas (AQMAs), both of which are in Lewes, where nitrogen dioxide concentrations exceed legal limits for human health. The county also has several sensitive ecological sites, such as Ashdown Forest.

4.5.2 Air quality impacts from Gatwick are likely to be localised close to the airport (construction and aircraft take off/ landing emissions) and around arterial roads used to access the airport (traffic emissions). East Sussex is sufficiently far from Gatwick Airport such that direct air quality impacts will be insignificant, and the projected increase in traffic on the county's roads is highly unlikely to have a significant adverse effect on air quality. This is confirmed by the air quality modelling in the applicant's Environmental Statement (Chapter 13, ADR 5.1 para 13.5). However, we continue to have reservations with regard to the air quality impacts, and what these would be, regardless of whether or not they are deemed to be 'not significant'.

4.5.3 Gatwick Airport expansion could, however, have a significant 'in-combination' impact on air quality in East Sussex, i.e. airport expansion and other proposed developments may be insignificant individually, but together have a significant impact on air quality. For this reason, planning guidance developed by the Sussex Air Quality Partnership (Air quality and emissions mitigation guidance for Sussex (2021)) has established a 'mitigation first' approach. It describes how developers should calculate the air quality damage costs associated with their development and implement suitable mitigation measures.

4.5.4 In respect of the impact of increased traffic on Ashdown Forest, the closest receptor (modelling point) for the Ashdown Forest was 'M330' on the A22. The air quality modelling suggested an NO₂ concentration of 7.6ug/m³ in 2032 without the scheme, and the same figure with the project in place (7.6 in 2032). In terms of what this means for the impact of additional traffic, the Ashdown Forest is too far away from the airport and relevant access motorways for the project to have an appreciable impact on air quality.

Table 4 – Air Quality

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
A1	Traffic emissions	C	Negative	Construction Traffic Management Plan (CTMP) [APP-085] and Construction Workforce Travel Plan (CWTP) – An outline CTMP and an outline CWTP 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.	The Airports National Policy Statement Aviation Policy Framework ESCC LTP4 Policy B5, WDC WCS14
A2	Traffic emissions	O	Negative	Air Quality Action Plan (AQAP) - 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. Air Quality Action Plan (AQAP) - A combined operational air quality management plan has not been prepared to draw together the Carbon Action Plan [APP-091] and Surface Access	The Airports National Policy Statement Aviation Policy Framework ESCC LTP4 Policy B5, WDC WCS14

				Commitments [APP-090] documents and to specifically focus on local air quality. An AQAP is required to collate all the proposed air quality mitigation measures together, identify any further opportunities to maximise air quality benefits and avoid any unintended consequences.	
A3	Aviation emissions	O	Negative	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.	Aviation Policy Framework ESCC LTP4 Policy B5, WDC WCS14

4.6 Traffic and transport impacts

4.6.1 East Sussex residents are heavily reliant on the private car to access Gatwick Airport for employment, business and leisure purposes due to there being limited public transport options available. There is currently no direct bus service from East Sussex to Gatwick Airport. Ashdown Forest Special Area of Conservation (SAC) / Special Protection Area (SPA) is a key route to the airport, and avoids travel along the A22/A264, which is a preferred strategic route to the airport.

4.6.2 Rail access to the airport is predominantly via the Brighton Main Line, however, poor rail infrastructure - from the largely rural nature of the county - linking East Sussex to the airport, means that rail travel from elsewhere in the county to the airport rarely takes place due to the multi modal nature of journeys and the need to change trains, which increases end to end journey time.

4.6.3 There is no funding associated with rail mitigation in GAL's proposals (like there is for highways). We would wish to see Gatwick's level of commitment to highways also given to rail, especially given their sustainable modal share targets. Gatwick could take a more proactive role in driving mode shift to rail. GAL state that the rail network has sufficient capacity. However, we understand NR will be doing their own modelling to assess this. ESCC support Network Rail's independent modelling work to identify what the impacts of the NRP would have on the rail network, and consideration will subsequently need to be given as to how the impacts could be mitigated.

4.6.4 Along with the other local transport authorities affected by Gatwick's NRP, ESCC are supportive of an approach whereby growth of the airport is only permitted when surface access commitments / targets have been met. This could easily fit within the existing SAC framework and would still deliver the outcomes that GAL desire. An approach has similarly been considered in respect of the Luton Airport DCO and is referred to as Green Controlled Growth, whereby growth is only permitted after targets have been met.

4.6.5 This approach would also satisfy the local highway authorities in that the suggested outcomes as described in the Environmental Statement and Transport Assessment would be delivered. 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. ESCC are supportive of the approach, and along with other affected transport authorities, propose to submit an interpretation of this Green Controlled Growth at Deadline 2.

Table 5 – Traffic and transport impacts

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
T1	Increase in capacity at the airport would lead to an increase in the number of passengers travelling to the airport from East Sussex to the airport by road based vehicles. This would have a negative impact on congestion, air quality, carbon emissions, noise levels, and climate change.	O	Negative	<p>Increasing opportunities to travel to the airport by bus/coach will reduce the number of car journeys and provide travel choices, thereby reducing carbon emissions and helping to meet decarbonisation and climate change targets.</p> <p>Upgrade and extend the current 261 bus route beyond East Grinstead providing a direct service between Uckfield and Gatwick Airport.</p> <p>Re-route the 261 bus service between Wych Cross and Forest Row, via Coleman’s Hatch, so that it operates directly between Forest Row and Coleman’s Hatch.</p> <p>Extend the operational hours of the 261 service to include early mornings, evenings and weekends. This will require a</p>	<p>NPPF – 9. Promoting sustainable transport Paragraphs 108 to 117</p> <p>East Sussex Local Transport Plan 3</p> <p>ESCC draft Local Transport Plan 4</p> <p>BSIP – Appendix Table 3 - Bus Service Availability: Concerns and Proposals</p> <p>The High Weald AONB</p>

				<p>funding contribution from Gatwick Airport.</p> <p>Introduce a Gatwick – Crowborough service. If Crowborough was to be linked directly to Gatwick, we recommend that this would best be delivered by providing a separate new route due to its geographical location and the limitations of the road network. ESCC considers that there would be scope for a Crowborough – Gatwick route to run via Forest Row and East Grinstead thereby, in combination with an Uckfield – Forest Row – East Grinstead – Gatwick service, doubling the frequency between Forest Row and Gatwick.</p> <p>ESCC request that bus service provision includes a direct link to Heathfield by extending the Uckfield – Gatwick service. This could integrate with the existing ESCC funded bus service between Heathfield and Uckfield. Improvements should be sought and secured through current and future iterations of Gatwick’s Airport Surface Access Strategy (ASAS) which is a document</p>	<p>Management Plan 2019-2024 Objective G3</p> <p>Wealden District Core Strategy Local Plan (2013) Spatial planning objective SPO7, Policies WCS7 and TR3</p>
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				<p>produced as part of the Gatwick Forum Steering Group which includes East Sussex County Council along with other local transport authority representatives, rail and bus operators, and business representatives.</p> <p>ESCC considers GAL should provide a Sustainable Transport Fund and this should be used to help deliver improvements to bus services from East Sussex to the airport.</p> <p>ESCC requests that GAL provide a long term Masterplan which will consider surface access improvements from East Sussex to Gatwick Airport and how the above bus service mitigation requirements will be funded. This will be important as airport passenger numbers increase, and public transport opportunities and demand increases.</p>	
T2	An increase in car journeys across Ashdown Forest would negatively exacerbate the existing impacts (noise, vehicular emissions (affecting air	O	Negative	Whilst the applicant has stated that 'Agreement has been reached with Natural England on the method used for the HRA	NPPF Paragraphs 187 and 188

	quality and carbon emissions) on Ashdown Forest – a Special Protected Area.			assessment and Natural England's Relevant Representations detail that no further information is required with regard to the HRA assessment' (ES Appendix 9.9.1 Habitats Regulation Assessment Parts 1 and 2 [APP-134 & APP-135].). Regardless of the agreement with Natural England, we wish for an accurate assessment of the current and anticipated impacts needs to be established in order to understand what the impacts would be, regardless of whether or not they are significant. This is because we continue to have concerns over the fundamentals of the traffic data used for us to check that these conclusions are acceptable.	Conservation of Habitats and Species Regulations 2017 ES Appendix 9.9.1 Habitats Regulation Assessment Parts 1 and 2 [APP-134 & APP-135].
T3	Whilst much of the county does not serve Gatwick Airport by rail, there are opportunities to do so. These journeys may take longer door to door and require more than one mode of travel; however, it is important aspect to consider as not all have access to a private car whereby, they can travel to the airport. Also, use of sustainable travel modes to the airport is preferred	O	Negative	The applicant should include the East Coastway line between Brighton and Hastings as a key corridor to join the BML for access to GAL. Any identified pressure(s) on the rail network should be mitigated accordingly, including through improved infrastructure and services (where possible and in	

	<p>and should be encouraged wherever possible.</p> <p>The transport model contains all rail services in the modelled area. However, the assessment focuses on services on the North Downs Line, Arun Valley Line and Brighton Main Line.</p> <p>People travel to Gatwick on the BML from the East Coastway (for work, business, leisure) and understanding the impact this increase in capacity could have on this part of the network is important.</p>		<p>liaison with Network Rail and the train operator (Southern – GTR).</p> <p>There is concern that rail infrastructure and service provision is not fully captured by GAL, and there is a risk that Network Rail’s infrastructure and the service pattern GTR can operate on this infrastructure may not be able to accommodate the increase in demand and capacity from passengers that will arise should the NRP become operational. This must be considered alongside wider demands for rail travel.</p> <p>There is no funding associated with rail mitigation in GAL’s proposals (like there is for highways). We would wish to see Gatwick’s level of commitment to highways also given to rail, especially given their sustainable modal share targets. Gatwick could take a more proactive role in driving mode shift to rail.</p> <p>GAL state that the rail network has sufficient capacity. However, we understand NR will be doing their own modelling to assess</p>	
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				<p>this. ESCC support Network Rail's independent modelling work to identify what the impacts of the NRP would have on the rail network, and consideration will subsequently need to be given as to how the impacts could be mitigated.</p>	
T4	<p>ESCC are supportive of Network Rail's proposal to undertake independent modelling work of the impacts of the NRP on the rail network.</p>	O	Negative	<p>GAL needs to mitigate the impacts of additional rail passenger demand arising from the use of the northern runway through investment in the rail network. Network Rail are best placed to advise on the type of mitigation that would be appropriate.</p> <p>It is important that Network Rail's individual assessment of the impact of the proposed NRP on rail demand is undertaken and appropriate mitigation is introduced ahead of the commencement of any operational use of the NRP should it receive consent.</p>	
T5	<p>Increase in pressure on the road network from additional people travelling to the airport for work, business or leisure purposes.</p>	O	Negative	<p>GAL needs to mitigate the impacts of the approaching traffic from the surrounding road network, including routes in East Sussex such as the A22 and A264, which feed into the</p>	

				A23/M23 corridor. GAL must also assess the impacts of airport growth on the strategic road network (e.g. M25) and ESCC's highway network beyond the immediate environment of the airport	
T6	Surface access targets not being met.	O	Negative	<p>A combined local transport authority approach whereby growth of the airport is only permitted when surface access commitments / targets have been met will be sought as part of Deadline 2 submission.</p> <p>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.</p>	Luton Airport Green Controlled Growth Framework

T7	Impacts of additional traffic on local road networks if the modal share targets are not achieved.	O	Negative	<p>Gatwick are proposing ambitious coach targets from Kent to Gatwick. If these are not achieved this could have significant implications on the road network from Kent to West Sussex, impacting on East Sussex roads also.</p> <p>East Sussex County Council support Kent CC's request for Gatwick to undertake a sensitivity test on a particular section of the M25 if the modal targets aren't achieved.</p>	
T8	Increase in uptake in electric vehicles (EV) in the county will require support at the airport to accommodate these vehicles (EV charging spaces / points)	O	Positive	<p>GAL must ensure that EV charging in airport car parks meets anticipated demand, using scenarios for EV adoption from the Government's 2023 Transport Decarbonisation Plan.</p> <p>Issues for GAL to consider:</p> <ul style="list-style-type: none"> - Dynamic tariffs that support charging at off peak times, to lower congestion and to encourage use when the cost of energy grid carbon intensity is lowest - Areas that support public charging exclusively (non-airport vehicles) 	DfT Decarbonisation Plan (2023) Emerging East Sussex Electric Charging Strategy

				<ul style="list-style-type: none">- Pre-bookable chargers- Commercial charging for vehicles associated with the airport should have designated zones.- Automated allocation of a specific charger on arrival (at busy times). This will prevent the reserving of charge points by users for friends colleagues, improve fair use.- Options that limit a charge to a specific percentage e.g. 80% times to support higher throughput.	
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4.7 Health and Wellbeing

4.7.1 GAL has considered health and wellbeing as part of the ES. Whilst this is welcomed, without an independent and locally specific Health Impact Assessment (HIA) it is not possible to understand the health impacts on each of the populations. The health impacts will vary greatly across the authority areas, and so it is important that this is made clear and presented transparently rather than integrated within an existing environmental statement chapter.

Table 6 – Health and Wellbeing

Ref number	Description of impact	Construction / Operation	Negative/ Neutral / Positive	Required mitigation and how to secure it	Policy context
H1	<p>Impact of additional flights and an increase in journeys to/from the airport on local communities, affecting physical and mental health and wellbeing, including through impacts of noise (including sleep disturbance) and vibration.</p> <p>A Health Impact Assessment should outline population health impacts for East Sussex and appropriate mitigation proposed and provided to protect population health and any impact on local services and infrastructure.</p>	C and O	Negative	<p>A Health Impact Assessment (HIA) should outline population health impacts for East Sussex. Appropriate mitigation should be proposed and provided to protect population health and any impact on local services and infrastructure.</p> <p>While there is not a statutory duty on the applicant to do so. In the case of this project - given the size, duration of construction, proximity to communities and far reaching disruption as well as ongoing operational increase in activity on completion - we would strongly recommend an HIA be carried out for East Sussex and each affected local authority area. This would ensure that the local health impacts for each area can be clearly identified and communicated. Without independent HIA's it is not possible to understand the health impacts on each of the populations. The health impacts</p>	<p>The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)</p> <p>NPPF 8. Promoting healthy and safe communities</p> <p>Para96 and 97</p> <p>Noise policies</p> <p>Airports National Policy Statement -, Health Para 4.70 – 4.73 Noise Para 5.44 5.52,</p>

				<p>will vary greatly across the authority areas, and so it is important that this is made clear and presented transparently rather than integrated within an existing environmental statement chapter.</p> <p>Note: GAL have stated that their Environmental Statement Chapter 18: Health and Wellbeing (Doc Ref. 5.1 APP043) sets out the study areas in Section 18.4, paragraph 18.4.8 (pdf page 25/214). East Sussex is part of the 'Six Authorities Area'. These are local level effects that are summarised at paragraph 18.11.9 (pdf page 178/214), with measures to reduce adverse impacts and increase beneficial effects discussed in the respective sections of section 18.8 that deal with each of these determinants of health.</p>	<p>5.56, 5.57, 5.68 National Policy Statement for National Networks Health Paras 4.79 – 4.82</p> <p>See also Air quality, Noise</p>
H2	Impact of noise and vibration on local communities – vulnerable groups	O	Negative	The noise and vibration impacts on health and well-being of local communities need further consideration and appropriate mitigation measures need to be identified. There is a need to consider vulnerable groups	NPPF 8. Promoting healthy and safe communities

				<p>within this, that may be more affected by the impacts of noise (and vibrations).</p>	<p>Para96 and 97</p> <p>Noise policies</p> <p>Airports National Policy Statement -, Health Para 4.70 – 4.73 Noise Para 5.44 5.52, 5.56, 5.57, 5.68 National Policy Statement for National Networks Health Paras 4.79 – 4.82</p> <p>See also Air quality, Noise</p>
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4.8 Landscape Townscape and Visual (Dark Skies)

4.8.1 Concern has been raised over the impacts of night flights and the impact this could have on protected areas in East Sussex (including Ashdown Forest) in relation to the dark skies policy. Gatwick Airport have responded to East Sussex County Council's concerns over the impact of increased airport activity arising from the NRP, confirming that:

- No new flight paths are proposed.
- The increase in overflights at up to 7,000 feet, compared to the future baseline scenario in 2032, is estimated to be up to approximately 20% during daytime and up to 10% during night time, and that this will have minor adverse effects w
- Whilst an adverse effect on the perception of dark skies is identified, this is not considered to constitute significant harm to this perceptual quality.
- The only possible effect on the perception of dark night skies is due to visible lights on overflying aircraft in clear weather conditions. The increase in overflying aircraft at less than 7000 ft above local ground level would range from 6% to 16%, which equates to between 0.2 and 1.8 aircraft a day which is considered to result in minor adverse effects.

4.8.2 Approximately half of the aircraft which currently overfly the South Downs National Park are not providing a service at Gatwick. Whilst an adverse effect on the perception of dark night skies is identified it is not considered to constitute significant harm to this perceptual quality.

4.8.3 The South Downs National Park (SDNPA) is the second International Dark Sky Reserve in England and one of only 16 in the world. Strategic Policy SD8: Dark Night Skies in the South Downs National Park's Local Plan, 2019 has been developed to ensure that development does not harm the quality of dark night skies in the South Downs National Park. The South Downs Dark Night Skies Lighting Technical Advice Note³⁸, supports the policy, by categorising the SDNPA into a number of dark sky zones, which reflect the quality of the dark night skies overhead and the level of street lighting. The South Downs National Park Authority use its role as a planning authority to protect the dark skies above the National Park as well as the landscape on the ground.

Table 7 – Dark Skies

Ref number	Description of impact	Construction / Operation	Negative/ Neutral/ Positive	Required mitigation and how to secure it	Policy context
D1	Concern that the increase in night flights will impact on dark skies and be in conflict with policy outlined in local protected landscape strategies e.g. High Weald, South Downs National Park.			<p>Whilst Gatwick Airport’s assessment deems there to be minor adverse effects (see excerpt below) any effect should be appropriately mitigated as this could have an impact on the protected landscapes below</p> <p>The increase in overflights at up to 7,000 feet, compared to the future baseline scenario in 2032, is estimated to be up to approximately 20% during daytime and up to 10% during night time, which is considered to result in minor adverse effects (see Table 8.8.1)</p>	<p>NPPF 15. Conserving and enhancing the natural environment Para 191 c)</p> <p>South Downs Local Plan 2014 to 2033 includes Objective 1: ‘To conserve and enhance the landscapes of the National Park’ and Strategic Policy SD8: Dark Night Skies.</p>

					The High Weald AONB Management Plan 2019-2024 Objective OQ4
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Appendix A

Needs case Review for Local Impact Report, York Aviation, March 2024



Gatwick North Runway Project Needs Case Review for Local Impact Reports

1. York Aviation (YAL) has been appointed by the Host and Neighbouring Authorities, collectively known as the Joint Local Authorities (LAs), to provide advice in relation to aviation capacity, need and forecasting, and aspects of the socio-economic case for Gatwick Airport Ltd's (GAL) North Runway Project (NRP). These are embodied in the Needs Case (**APP-250**) for the proposed development.
2. It is important for the LAs 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.
3. Ultimately, 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 Base Case capacity.
4. This paper has been prepared to inform the LAs Local Impact Reports (LIRs), drawing on submitted application documents, the Relevant Representations, PADSS and GAL's Issues Tracker [**AS-060**]. The paper addresses:
 - Need
 - Base Case and NRP Capacity
 - Demand Forecasts
 - The Wider Economic Case

Need

5. It is not disputed that aviation policy provides in principle support for airports to make best use of their existing runways³, as set out in the 2018 policy document *Beyond the*

³ It is noted that further information is to be provided by the Applicant to the Examination about the construction/engineering works involved in repositioning and resurfacing the emergency runway to enable dual runway operations and this information will be relevant to an assessment of whether the NRP is properly to be regarded as making best use of an existing runway or the establishment of a new runway. Pending the provision of that further information, this review proceeds on an assumption that the MBU policy is applicable.

*horizon: making best use of existing runways*⁴ (MBU), or 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**). Concerns regarding the extent of congestion currently at Gatwick have been expressed in Relevant Representations by its main airline customer, easyJet (**RR-1256**), and the Gatwick Airline Consultative Committee (**RR-1493**). This is 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 and this is considered further later in this note under the heading Demand Forecasts.

6. As GAL notes in the Needs Case (**APP-250**) at paragraph 5.2.9, the Secretary of State is clear in the decision on the Manston DCO⁵ that 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. Each case falls to be determined on its own merits having regard to the benefits and environmental impacts of the development.
7. However, noting that the *Airports National Policy Statement* (ANPS) at paragraph 1.42 refers to other airports being able to “*demonstrate sufficient need for their proposals additional to (or different from) the need which is met by the provision of a Northwest Runway at Heathrow*”⁶, a helpful interpretation of how need should be construed is provided at paragraph 37 of the Manston decision:

“The Secretary of State agrees with the Applicant that the ANPS does not provide an explanation of ‘sufficient need’. He also agrees that the MBU policy, which is relevant to this Application, does not require making best use developments to demonstrate a need for their proposals to intensify use of an existing runway or for any associated Air Traffic Movements (“ATMs”). The Secretary of State notes, however, that the MBU policy states that a decision-maker, in taking a decision on an application, must take careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations (MBU paragraph 1.29). The Secretary of State considers that the benefits expected from a proposed development would materialise if there is a need for that development. Therefore, in order to assess whether the expected economic benefits will outweigh the expected environmental and other impacts from this Development, the Secretary of State has considered need in the context of identifying the likely usage of the Development from the evidence submitted in the Examining Authority’s Report, the Independent Assessor’s Report and the representations submitted by Interested Parties during the redetermination process.”

8. Hence, it is essential that applications for making best use of an existing runway must be accompanied by robust forecasts of the likely usage of the additional capacity so as to ensure that the assessment of benefits, impacts and their required mitigation is reasonable and forms a sound basis for decision making.

⁴ Department of Transport, *Beyond the Horizon, making best use of existing runways*, June 2018.

⁵ Department for Transport, *Application for the Proposed Manston Airport Development Consent Order, Decision*, 18th August 2022.

⁶ Department for Transport, *Airports National Policy Statement*, June 2018.

9. It is notable, however, that part of the rationale for the Secretary of State dismissing consideration of the potential for other airports to meet all or part of the need in the case of Manston was that the alternative development proposals might not be brought forward by other airports. Since that time, an application for development consent has been brought forward for the expansion of London Luton Airport to 32 mppa and there is a proposal for London City Airport to expand to 9 mppa. It also remains the case that the ANPS is still in force and expressly supports the provision of the Northwest Runway at Heathrow as a matter of policy and applicants need to demonstrate a specific need (likely usage) for their development that differentiates the expected usage from that which could be met at Heathrow. We address later in this paper, the extent to which GAL has demonstrated a need distinct from that which could be met at Heathrow.
10. In this context, we note, nonetheless, that the Planning Inspectorate's Scoping Opinion on the Environmental Statement (**APP-095**), at paragraph 3.3.13, is clear that the timing of the provision of an additional runway at Heathrow is a matter that it expected to be fully considered as part of the sensitivity testing, i.e. the possibility of another runway coming forward cannot be ignored and the implications should be assessed both individually and cumulatively. We address the adequacy of GAL's approach to this issue further later in this note.

Capacity

Base Case

11. The Base Case capacity of the existing runway to handle up to 55 aircraft movements per hour is accepted as the maximum hourly runway capacity with a single runway in use for the purpose of baseline capacity assessment. This is the peak hourly runway movement rate used for scheduling purposes in busy hours currently, although, as noted in paragraph 5 above, GAL's airline customers have expressed concern about the acceptability of the levels of congestion and delay at that throughput:

"GAL's performance is below the performance of other large airports in Europe. GAL is consistently ranked in the lower half of punctuality rating in relation to average arrival and departures of the 33 airports reported by Eurocontrol (see sources). GAL has provided sub-standard Air Traffic Control services in 2022 and 2023 demonstrating a clear inability to cope with the current levels of traffic, let alone an increase in capacity with a second runway." (RR-1256)

12. We understand that easyJet has removed some of its based aircraft from Gatwick in summer 2024 in part to improve resilience and plans to reduce its fleet at the Airport still further⁷. We believe that the level of delays seen at the Airport are a factor in the slower recovery of demand at Gatwick than at the other major airports. Gatwick was the poorest performing of the UK's top 10 airports in 2023 with traffic recovered to only 88% of 2019 volumes in the previous 12 months compared to 98% at Heathrow, 99% at Stansted and 90% at Luton, with the latter impacted by measures put in place to protect the noise contour and passenger limits pending the more recent approval for these to be raised⁸.

⁷ <https://aviationweek.com/air-transport/airports-networks/easyjet-return-3000-gatwick-slots-british-airways>

⁸ Department for Levelling Up, Housing and Communities and Department for Transport, Town and Country Planning Act 1990 – Section 77 Application made by London Luton Airport Operations Ltd (LLAOL) London Luton Airport, Airport Way, Luton, LU2 9LY, Application Ref: 21/00031/VARCON, Decision Letter, October 2023.

13. Ultimately, the extent of delays impacts on airlines' willingness to base or schedule more aircraft into the Airport, and this has implications for the Base Case passenger and aircraft movement forecasts that have informed the baseline assessment of environmental impacts. This issue is addressed further later in this note in terms of the annual passenger throughput that the current airport capacity can support.

NRP

14. 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.
15. In terms of the capacity uplift attainable with the NRP, GAL claims that it can attain an hourly runway movement of up to 69 movements per hour with both runways in use. Whilst this may be theoretically correct in hours when there is a close to even split of arriving and departing traffic, it is not likely to be the case when there is a predominance of either arriving or departing aircraft movements within any given hour as arriving and departing movements cannot be interleaved with each other and minimum separation standards apply between consecutive arriving or departing aircraft according to weight or the departure route used.
16. Given the predominance of activity by based aircraft, including the large easyJet fleet based at the Airport, coupled with based aircraft of British Airways, TUI and Wizz Air UK, this means that between 55% and 60% of all aircraft movements in Summer 2023 involved based aircraft. Based airlines are critically dependent on making maximum use of their aircraft over the day, particularly to sustain low and competitive air fares in order to attract passengers to use them. Hence the first hours in the morning are critical in terms of capacity for departing aircraft and this, in large part, determines the overall throughput attainable at the Airport. It seems likely that concerns regarding levels of congestion and delay in this critical period for based airlines underpins the concerns about GAL's ability to successfully deliver the project as expressed by easyJet in its Relevant Representation (**RR-1256**):

“easyJet therefore questions whether GAL would be in a position to manage the increased aircraft movements that the Northern Runway would bring.

Current infrastructure plans set out by GAL do not sufficiently account for increased capacity.

easyJet is aware that GAL has initiated some conversations on improvements to terminal infrastructure needed for the Northern Runway Project, however these are at a concept / pre-planning stage.”

17. Hence, a critical time of day in terms of available runway capacity is the early morning period dominated by departing aircraft movements. GAL's own data (ES Appendix 4.3.1 (**APP-075**), Annex 7, page 6) shows a requirement for 48 aircraft departures in the first hour of the morning from 2032 onwards, with a total number of departures over the first 4 hours of the morning of 163 (an average of over 40 departing aircraft movements an hour when such based aircraft need to depart). This requires no more than 90 seconds on average between each pair of departing aircraft.
18. Although the NRP will enable both runways to be used for departures, meaning that aircraft can be lining up for take-off on both runways simultaneously, the separation between the two runways, even after modification, will be such that they are treated as

a single runway in terms of the airspace as confirmed at paragraph 4.5.9 of the Planning Statement (**APP-245**):

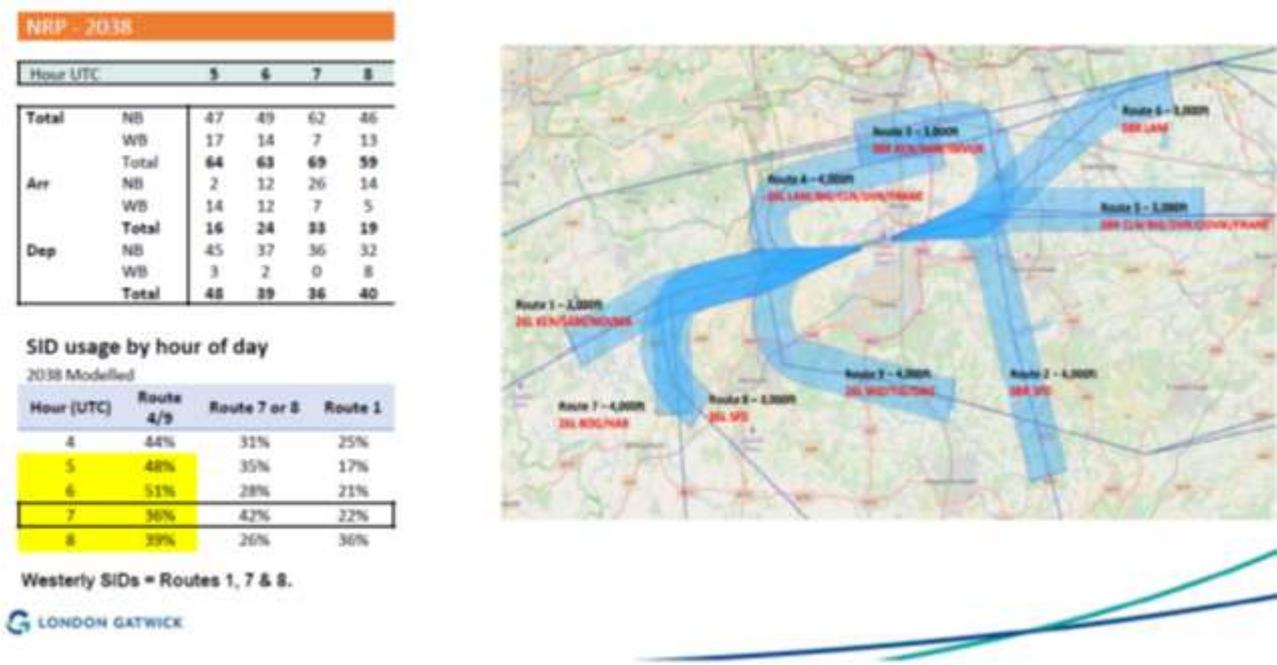
*“Because of the minimum 210m separation distance between the centrelines of the two runways, they would be treated for the purposes of air traffic control as a single runway for departure departure separation purposes”.*⁹

19. In general, this means that aircraft following the same departure route for any distance beyond the end of the runway must be separated by 2 minutes between successive departing aircraft regardless of which runway they depart from. Only where departure routes diverge by 45° or more immediately at the end of the runway is it possible, under current rules, to reduce the separation between two departures to 1 minute, subject to wake vortex considerations¹⁰. GAL’s original runway capacity modelling as reported in the Needs Case (**APP-250**) had assumed that 1 minute separation would be achievable between all departing aircraft.
20. The most critical direction for assessing the capacity of Gatwick’s runway configuration is the westerly Runway 26 direction, used for 70% of the time on average. The departure route structure for this runway direction is shown in **Figure 1** (provided at the Technical Working Group [TWG] on 22nd June 2023) along with the proportionate usage anticipated for the first few hours in the morning that are critical for overall departure capacity and the ability of the Airport to grow operations by based aircraft. Although Gatwick has recently initiated consultation on potential changes to its departure routes to the south, the implications of these changes in terms of capacity are not clear, nor is the timescale for further information becoming available. It is understood that GAL has not modelled the capacity implications of these potential changes to the departure routes, which adds further doubt to whether the capacity increase claimed can be relied on.

⁹ This is confirmed by the CAA in its Relevant Representation (**RR-0831**), where it states at paragraph 4.6 that the proposed use of the North Runway would not alter existing traffic patterns. Whilst the CAA has also confirmed that there is no impediment foreseen to the ability to certificate the use of the North Runway on the layout proposed, this cannot be taken to imply that the CAA has validated the capacity attainable through the NRP having regard to the fact that no change to airspace is directly proposed.

¹⁰ Where lighter aircraft follow heavier aircraft, greater separations distances apply due to wake turbulence effects from the leading aircraft.

Figure 1: Structure of Gatwick Departure Routes and assumed usage 2038 with NRP Characteristics of the 2038 Busy Day Forecast Schedule



21. On the basis of the departure routes as currently operational, it is evident from **Figure 2** that Departure Routes 1, 7 and 8 do not diverge and require 2 minute separations between all aircraft. Only Routes 4 and 9 provide the requisite divergence from the other three routes. However, Route 9 – WIZAD – is precluded from use before 07:00 local time (06:00 UTC in summer), which is the busiest hour (05:00-06:00 UTC) for departures and, in any event, is only permitted to be used on a tactical basis by air traffic control when Route 4 is subject to congestion en route. Hence, it is not clear how 1 minute separations could be attained for a greater proportion of departures in future during the critical early morning departure peak than can be achieved currently given that:

- the existing structure of departures routes; and
- constraints on the use of WIZAD in terms of pre-07:00 departures and in terms of the expectation that its use will be limited (as assumed for noise assessment purposes).

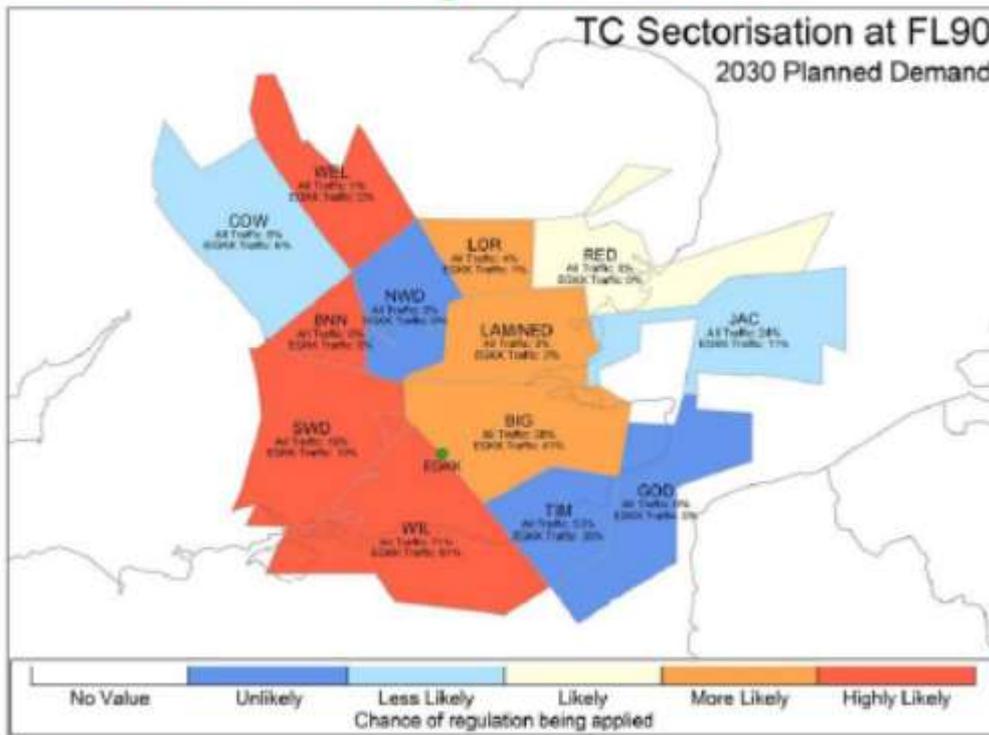
In other words, it is not clear the extent to which an uplift in capacity of the order put forward by GAL can be achieved through, effectively, just the time saved from being able to have two aircraft lined up simultaneously. We understand that GAL assumes that the runway utilisation can be optimised by through holding and sequencing aircraft onto the runway to minimise the occurrence of departing aircraft following the same route. This is discussed further below in the context of the simulation modelling results.

22. Whilst it is anticipated that the Airspace Modernisation Programme (FASI-S) underway for the South East of England may overcome congestion problems, for example impacting Route 4, over the longer term, the timescale for implementation remains unknown. GAL itself presents evidence of the likelihood of departures from Gatwick being impacted by airspace bottlenecks (i.e. subject to delays) in the sectors

surrounding the Airport, as shown in Figure 2 (ES Appendix 4.3.1 [APP-075], Annex 7, page 12).

Figure 2: Prospective Airspace Congestion

Bottleneck analysis - 2030



23. Although GAL has asserted that it is not dependent on airspace change to deliver the NRP, this is only true in the narrow sense of GAL not expressly requiring a change to its departure routes to bring the north runway into simultaneous operation as these remain the same with one runway or two. Given the prospective congestion impacting airspace through which these routes pass, it cannot reasonably be assumed that greater use will not be required of Route 9 – WIZAD to deliver an increase in hourly aircraft movements. In particular, this is material to the achievability of 48 departures in the first hour of the day when, under current rules, no use of WIZAD is permitted. GAL provided information in June 2023 to suggest that, in the critical first hour for departures, 48% of aircraft would be using Route 4 (Route 9 not being available) and 52% using Routes 1, 7 and 8. Given the potential for broader airspace congestion, particularly to the north of the Airport on Route 4, where there is interaction with movements to and from Heathrow and the other airports north of London, it does not seem realistic to assume that 48% of an increasing number of departures in peak periods as the Airport grows could use Route 4 without being subject to broader airspace flow management delays as air traffic demand grows more generally.

24. There are possible two consequences of this airspace congestion:

- ✈ either a relaxation on the use of the WIZAD route to facilitate increased early morning departures will be required, which has implications for the assessment of noise in areas south of the Airport, as only limited use of the WIZAD route has been assumed over the day; or

- the projected increase in aircraft movements and passengers will not be capable of delivery until into the later 2030s, pending the roll out of airspace change across the whole London system and having regard to the target end date for implementation of airspace modernisation being 2040.

25. Although GAL has recently clarified (TWG 9th February 2024) why the use of Route 9 does not directly of itself lead to an increase in capacity as it converges with Route 4 to the east of the Airport and the same separation between aircraft would be required at that point regardless of whether Route 4 or 9 was used, this does not address the potential need for Route 9 to be used more extensively in periods of airspace congestion.

26. We do not consider it reasonable to rely on the limited use of the WIZAD route or no use before 07:00 if GAL is to attain the throughput claimed in the early morning period, particularly in the circumstances of FASI-S not being implemented in time to deliver a material uplift in the throughput of the Airport by 2032, as put forward by GAL (ES Appendix 4.3.1 [APP-075], Table 10.1-1). We do not believe that it can be realistically assumed that broader airspace constraints would not limit potential throughput at least in the short to medium term. This position has, in essence, been confirmed by the CAA in its Relevant Representation (**RR-0831**) where it states, at paragraph 4.7 that:

“It is the case that it is too early in the Airspace Modernisation programme to say what trade-offs will be required to resolve any conflict between the sponsors of separate airspace changes, or between different objectives. Therefore, it is also too early to say what benefits individual airports might achieve from airspace modernisation, whilst recognising that one of the goals for the AMS is to provide greater capacity overall.”

This suggests that some caution needs to be applied to the ability to sustain a material uplift to capacity before the mid-2030s at the earliest on airspace grounds alone.

27. Over and above considerations of airspace congestion, we challenged the assumption that 1 minute separations would be attainable between a majority of departures sufficient to sustain a peak morning aircraft departure rate of 48, as required to support the forecast throughput. Although a 51:49 split of departures by track in the 07:00 local hour might imply that 1 minute separations might be achievable between most departures, this would require perfect sequencing of departures so that Route 4 (or 9) and Routes 1,7 or 8 would be used alternately¹¹. Although departure management tools could be used to help achieve this, there would be consequential delays to aircraft either on stand or at the holding point to enable this optimised flow to be achieved.

28. In practice, the probability of aircraft demanding to use the runway in precisely the optimum sequence of departure is extremely low. Meaning that air traffic control will need to carefully sequence aircraft from pushback from stand to lining up on the runway to ensure the optimum sequence of departing aircraft. This is why the large area of ‘Charlie Box’ is being provided (Design and Access Statement [APP-253], paragraph 4.4.16) to allow space for aircraft holding and sequencing close to the two runways.

29. GAL reported its original fast-time simulation modelling of the NRP configuration (Needs Case [APP-250], paragraph 7.3.12). This includes some analysis of the Base Case, the results for which had not previously been shared by GAL. Our

¹¹ The tracks used by aircraft depend on their ultimate destination.

understanding, based on discussions at TWG meetings, is that this initial simulation modelling did not expressly take into account the departure route required by each departing aircraft but had instead assumed that 1 minute separations would be achievable between all departing aircraft. This is simply not valid. Either the modelling should expressly have considered the separation required between each pair of departing aircraft using a random distribution by departure route relative to the proportion of departures on each route expected in each hour according to the expected destinations of flights in future, or GAL should have modelled the process of sequencing such departures on the ground in order to optimise the sequence to achieve close to the 1 minute average. This is necessary to reflect real world variation in the time that aircraft actually demand to use the runway, including the need to adhere to broader en route air traffic flow management slots¹² in peak periods. Either way, there will be additional delay incurred by departing aircraft over and above that modelled by GAL.

30. This is material as it is the average and maximum levels of delay over a busy period that determine the acceptability to the airlines of declaring a runway movement rate as achievable. Delays cost airlines substantial sums of money and can result in lost aircraft utilisation if there are knock-on consequential delays over the day. Gatwick is already an airport with substantial levels of delay as evidenced by the representations from easyJet and the Gatwick Airline Consultative Committee. Ultimately, the existence of a high level of delay is a significant deterrent to airlines increasing their use of the Airport.
31. It is notable that Tables 7.3-1 and 7.3-2 of the Needs Case [APP-250] do not report the level of delay for the Base and NRP Cases but only report overall taxi-times. This is somewhat disingenuous. Some information for runway holding delays is provided in Appendix 4.3.1 to the ES [APP-075], Annex 8, page 8 but this only shows the runway holding delay and not the other delay components of holding on stand when an aircraft's pushback is delayed for sequencing or congestion reasons or delays on the taxiway due to congestion. All of these are normally included within the delay component considered in relation to declaring runway capacity for scheduling purposes. Furthermore, information is only provided averaged over the day as a whole rather than the critical busy period as would be normal practice in validating the capacity of any runway. It is important to understand the components of delay and how these impact individually on the critical busy hours. Until this material has been shared and discussed, we do not consider it is prudent to place reliance on these outputs.
32. We note the very high departure taxi-time recorded in Tables 7.3-1 and 7.3-2 for the Base Case, no development, Case. This implies excessive levels of delay at the baseline throughput modelled, which casts some doubt on the robustness of the assumptions underpinning the growth projected in the Base Case and the likelihood of airlines being willing to increase services at Gatwick at such levels of delay, reinforcing the view expressed earlier in this section. If the Base Case capacity and throughput has been overstated, this means that the difference in effects with and without development will have been understated in the ES.

¹² These are allocated on the day by Eurocontrol to manage broader airspace congestion and determine the time window in which any aircraft is allowed to take-off.

33. **Figure 3** shows more detailed information on the delays predicted through GAL’s simulation modelling as provided to the Planning B TWG on 10th January 2023. We are unclear whether this now relates to the same scenarios as presented in the Needs Case but assume it still to be valid. However, this information did not provide sufficient breakdown for the critical busy hours individually.

Figure 3: Modelled Delay as provided by GAL

Northern Runway Project Peak Holding Times

Measure	Category	Type	2029				2038			
			0500 - 0900 UTC	1200 - 1600 UTC	06-00 - 22:00 UTC	24hr	0500 - 0900 UTC	1200 - 1600 UTC	06-00 - 22:00 UTC	24hr
Total taxi time (min)	Departures	ave.	13.7	12.4	12.8	12.9	17.9	18.9	18.0	18.0
		95 th Percentile	20.7	19.9	20.7	20.7	33.6	26.4	28.1	27.8
Arrivals	Arrivals	ave.	9.8	8.8	9.0	9.0	10.8	9.4	9.4	9.4
		95 th Percentile	16.5	12.3	13.4	13.6	18.8	13.9	14.2	14.4
Departure holding (min)	Stand	ave.	1.4	1.2	1.3	1.2	2.0	1.2	1.5	1.4
		95 th Percentile	7.2	6.7	6.7	6.6	9.1	6.0	7.9	7.4
	Taxiway	ave.	0.5	0.4	0.5	0.5	0.6	0.5	0.6	0.6
		95 th Percentile	2.3	1.9	2.4	2.3	3.0	2.3	3.1	3.0
Runway	ave.	4.0	2.6	3.1	3.1	8.2	7.1	6.2	6.0	
	95 th Percentile	11.0	7.2	10.0	9.9	24.8	19.3	18.9	18.4	
Arrival holding (min)	Taxiway	ave.	0.8	0.4	0.5	0.5	1.3	0.7	0.7	0.7
		95 th Percentile	3.9	2.4	2.9	2.9	4.8	3.2	3.5	3.5
	Airborne	ave.	3.2	3.0	3.2	3.0	4.0	3.9	3.9	3.7
		95 th Percentile	7.7	7.0	7.6	7.4	11.3	9.8	9.7	9.8



34. From the above data, it is evident that, over the key 4 hour period in the early morning for departures, average departure delay with the NRP was projected, on the basis of GAL’s original simulation modelling, to be 10.8 minutes. This is more than the normally accepted 10 minutes average delay over such a peak period. Peak delays (95th percentile) would be materially greater and could be in the range 25-36 minutes. Significantly, as discussed above, this delay is before accounting for the additional delays caused by either a greater proportion of departures requiring a separation of 2 minutes from the preceding departing aircraft and/or the holding and sequencing delays incurred on the ground to deliver an optimum sequence to achieve 1 minute separations between successive departing aircraft on average.
35. It was made clear at TWG meetings from mid-2022 onwards that this was considered to be a flaw in the simulation modelling and we understand that GAL has now revised its modelling taking the average separation currently achieved between departing aircraft following the same route of 106 seconds rather than 1 minute previously assumed. This assumes that ATC can tactically achieve less than 2 minutes separation in such circumstances. Some results were shared in February 2024 (TWG 9th February 2024) including some results from the Base Case modelling. However, the information was not presented in sufficient detail to enable robust comparison with previous results. Further information has been requested in sufficient detail to enable the implications for peak period delay to be properly understood. Although some information has been provided informally ahead of Deadline 1, further clarification is still required in relation to the reasons for differences to the previous modelling as reported at TWGs and in the Needs Case [APP-250].

36. Currently, we do not consider, based on the information so far presented, that GAL has robustly demonstrated that the assumed increase in capacity with the NRP can be attained in practice at acceptable levels of delay to the airlines. 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.
37. If the capacity deliverable by the NRP is lower than projected by GAL, this has implications for the level of demand that can be accommodated and the assessment of the effects, both positive and negative of the proposed development.

Demand Forecasts

Bottom Up Forecasts

38. Understanding the capacity attainable with the NRP is particularly important in this case as GAL has not adopted a conventional approach for forecasting the demand that could be attracted to the Airport if it had additional capacity available with the NRP. 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, GAL built its demand projections for the NRP entirely bottom up. This is evident from Section 2 of Annex 6 to Appendix 4.3.1 to the ES [APP-075]. This report contains no analysis of market demand at the individual world region level and no justification for the assumed share of that growth that might be taken up at Gatwick. It 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”*¹³.
39. 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. We would also note that the report only covers in detail the period to 2032 and there is no evidence that justifies the forecast growth to 80 mppa in 2047.
40. Best practice for long term demand forecasting is to use econometric modelling and, in the circumstances where there are step changes in airport capacity expected, it would be best practice to use a systematic allocation model that assesses the share of each airport in different competitive circumstances. We do not accept GAL’s contention that top down modelling is less applicable to capacity constrained situations (Issues Tracker [AS-060], 16.2) as, properly specified, a model can replicate the effect of constraint and its release. Such an approach has traditionally been adopted by the Department for Transport and has been used for the London Luton Airport DCO application as well as for other airport applications, such as at Bristol in 2021. GAL

¹³ ES Appendix 4.3.1 [APP-075] Annex 6, page 12.

relies in its Issues Tracker [AS-060] on the Secretary of State's decision in respect of Manston Airport¹⁴, stating:

“At Manston, for example, the SoS preferred the applicant’s bottom-up approach. In GAL’s view a bottom-up approach to forecasting, particularly is more appropriate in a constrained market where demand exceeds supply. In those circumstances, GAL is well placed to forecast how airlines would react to the release of capacity at the airport, particularly as many of them have known, unmet requirements for slots.

This is a practical, market based approach which is likely to be more meaningful than a theoretical, modelled top-down approach.

The long term risk referred to by the authorities is less of a concern here than it might be at other airports because the forecasts show that the new capacity would be quickly filled.”

41. It is important to note the context in which the Secretary of State preferred a qualitative approach in preparing forecasts for Manston to conventional modelled approaches to demand forecasts. This was because:

“The Secretary of State has considered the reasons given by the Applicant for taking a qualitative bottom-up approach to forecasting in it’s [sic] Azimuth Report which are: 1) data to extrapolate is only available until 2014; and 2) the history of underinvestment when it previously operated as an airport before it closed in 2014 [ER 5.6.53].”¹⁵

“the qualitative approach taken in the Azimuth Report is preferable to the other forecasts considered by the Examining Authority. Given the dynamic changes that are currently taking place in the aviation sector as a result of the challenges and opportunities from the COVID-19 pandemic, the opportunities from the UK’s emergence as a sovereign trading nation and the age of the available data allied with historic under investment, the Secretary of State, contrary to the Examining Authority [ER 5.7.4] and the Independent Assessor, places little weight on forecasts that rely on historic data and performance to determine what share of the market the Development might capture.”¹⁶

42. The same conditions cannot be said to be true at Gatwick:

- passenger forecasting methodologies are well tried and tested;
- to the extent that capacity constraints at Heathrow are a factor in traffic development, these have been evident for many years and the effects capable of modelling;
- Gatwick Airport has not suffered from under-investment such that it has not been attractive to airlines; and
- unlike the cargo sector, there is no shortage of data regarding the origins and destinations of passenger demand to and from the Airport’s catchment area.

¹⁴ Application for the Proposed Manston Airport Development Consent Order, Decision Letter 18th August 2022.

¹⁵ Department for Transport, Planning Act 2008 Application for the Proposed Manston Airport Development Consent Order, Decision Letter 18 August 2022, paragraph 81.

¹⁶ Ibid, paragraph 89.

43. We consider that, even if the capacity achievable with the NRP was correct, little reliance could be placed on the 'markets and pipeline' report as a robust justification of the demand that Gatwick might attract. The report simply asserts the number of additional flights that GAL hopes to attract in each market without any underpinning analysis of the likelihood of such flights being attracted by reference to the size of the market and the other airports competing for services in that market. This 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. 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.
44. In relation to the claimed increases in flights in each geographic market in the Base Case, it is unclear why, given constraint in capacity at Heathrow, some additional services have not yet been attracted. The extent to which this is linked to current congestion issues is not clear. Consequently, it is not clear 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, we consider 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.
45. The same applies to the NRP Case but, fundamentally, GAL provides no analysis that would enable the claimed increases in air services in each market to be validated having regard to demand that could be better accommodated at other airports including Heathrow. On this basis, we do not believe that the demand forecasts in their present form can be relied on.
46. The forecasts also assert a substantial spreading of demand outside of peak periods at Gatwick in order to reach the total passenger and aircraft movement throughputs assumed in both Base Case and NRP Case. 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 to be attracted with the NRP.
47. Overall, the consequence of this, given the capacity constraints at peak periods, is most likely to be that the total number of passengers and commercial air traffic movements has been further overstated. The projections in both cases assume that growth will be focussed towards winter months, with a typical winter day increasing from 78% of a typical summer day's traffic volume to 88% in 2038 and 90% in 2047. This compares to the ratio at Heathrow in 2019 of 92-93%. Given that the low seasonality at Heathrow is largely driven by its substantial component of long haul demand and its hub role, it seems unlikely that such spreading of the peak would be attainable at Gatwick, which is forecast to remain dominantly a short haul airport (67% in 2047 compared to 73% in 2019) whereby patterns of demand are much more seasonally peaked, particularly given the substantial low fare airline presence at the Airport, with or without the NRP, operating a large number of leisure routes.
48. Even if the hourly aircraft movement capacity asserted by GAL was correct, it seems likely that the annual passenger and aircraft movement projections are overstated in both cases. The consequence of this is that the environmental effects of the NRP

compared to 2019 may have been overestimated, i.e. represent a reasonable worst case, but the assessment of economic benefits will have been similarly overstated. Furthermore, to the extent that this risk of overstatement in terms of additional services that can be attracted may affect the Base Case to a greater extent than the NRP Case, it is equally possible that the difference with and without development may have been understated. It will be important to clarify this during the Examination.

Top down benchmarking

49. GAL has sought to validate its long term bottom up demand forecasts by top down benchmarking against the Department for Transport's UK Aviation Forecasts. Initially, this was undertaken based on the 2017 forecasts¹⁷ then updated to the Jet Zero Forecasts¹⁸ as set out in Section 5 of the Needs Case [APP-250]. Further top down benchmarking was discussed at a TWG on 16th February 2024 and we understand will be submitted at Deadline 1. This included a comparison with the more recent Department for Transport projections of March 2023 referred to in the *Jet Zero: One Year On* report of July 2023¹⁹ and set out some work undertaken by GAL on assessing what Gatwick's share of the market would be based on these latest demand projections. However, various aspects of the approach adopted and the presentation of the results is unclear and further clarification is needed. We will comment further on the information when submitted.
50. As originally presented, the benchmarking is based on considering what the London airports' share of the total UK demand forecast might be and then considering the extent to which other London airports have capacity to meet that demand. This starts from an assumption, illustrated in Figure 5.2-1 of the Needs Case [APP-250], that the London airports' share of the overall UK air passenger market remains the same as in 2019.
51. The more substantive issue is that the overarching UK demand forecasts, from which GAL asserts a total pool of demand for the London airports, includes an assumption that Heathrow grows. In the case of the DfT 2017 forecasts²⁰, the forecasts shown in the Needs Case [APP-250], Figure 5.1-1, are wholly unconstrained and reflect underlying demand to fly unconstrained by any consideration of available airport capacity. The Jet Zero forecasts adopted for the London Airport share in Figure 5.2-1 are forecasts constrained by the maximum capacity assumed to be deliverable across all airports, i.e. consistent with the making best use of airport runways and assuming a third runway at Heathrow²¹.
52. In other words, if the provision of a third runway was not assumed and other airports were not assumed to have additional capacity available, the constrained demand would be lower. In a constrained market, some element of demand is priced off from flying due to the inconvenience of having to use an alternative airport that may be further away from the passengers' origin or destination. Not all demand simply moves from one airport to another.

¹⁷ Department for Transport, UK Aviation Forecasts, 2017.

¹⁸ Department for Transport, Jet Zero Dataset, 2022.

¹⁹ Department for Transport, Jet Zero: one year on, July 2023.

²⁰ Department for Transport, UK Aviation Forecasts 2017.

²¹ Department for Transport, Jet Zero Dataset, 2022, Airport Capacity tab.

53. By way of corroboration, the ANPS at paragraphs 3.20 and 3.21 compares the incremental passenger throughput deliverable by a third runway at Heathrow at an additional 28 million passengers in 2040 compared to no expansion at any airport, whereas a full second runway at Gatwick would have delivered an additional 10 million passengers in the same year. This was, of course, on the basis of a fully independent second runway at Gatwick, which is a different proposition in terms of an uplift in capacity compared to the NRP. In other words, the total level of passenger demand is not independent of which airport is assumed to expand and the extent of that expansion.
54. In the context that the overall UK passenger forecasts, as used in GAL's benchmarking, allow for growth at Heathrow, they include an assumption of continued growth of the Heathrow hub, including growth in the number and proportion of transfer passengers expected to use the hub, which currently account for a third of all passengers at Heathrow. The effect of assumed capacity constraint on transfer passenger volumes is illustrated in Table 60 of the DfT's UK Aviation Forecasts 2017 where international to international transfer passengers are assumed to be impacted by the effect of constrained capacity being assumed at Heathrow to a greater extent than point to point passengers – declining from 23.9mppa in 2016 to 4.9 mppa in the 2050 central forecast case. There would also be an expected reduction in domestic to international transfer passengers.
55. As Gatwick is not expected to replicate the Heathrow hub role, with a decline in its proportion of transfer passengers expected (Needs Case [APP-250], Table 6.4-10), at the very least some downwards adjustment needs to be made to the projections of London airport passengers before considering the adequacy of capacity to meet demand if no additional runway is assumed at Heathrow, which is the core of GAL's case for the NRP. Although we understand that GAL has made some adjustments for the transfer passenger element in its latest modelling as discussed at the TWG, the basis for this is not clear and further information is sought. Taking into account these factors, demand across the London system in 2037, from which Gatwick could draw, would be materially less than the 247 mppa suggested at Figure A5.3.1 of Annex 5 to Appendix 4.3.1 to the ES [APP-075], leaving less residual demand to be met at Gatwick even with the NRP and without a third runway at Heathrow.
56. Although GAL presents a Heathrow R3 Sensitivity Test in Annex 4 of Appendix 4.3.1 to the ES [APP-075], the basis of this has not been adequately explained. The effects are merely asserted without any explanation as to how they have been derived. Furthermore, whilst doubts remain regarding the timetable over which a third runway at Heathrow might come forward, its provision remains policy, and it now seems more likely that Heathrow will initially seek some form of capacity increase through adjustment to its existing annual aircraft movement limit and potential use of both of its existing runways in mixed mode²².
57. Similarly, a slower growth sensitivity test has been presented but this is not, as would be normal practice, referenced to assumptions about slower economic growth or higher carbon costs, for example. It is not possible to judge whether this slower growth sensitivity test properly reflects downside economic risks or the longer term cost of carbon and its abatement.

²² Both runways used simultaneously for both arriving and departing aircraft, compared to the current operating mode with arrivals on one runway and departures on the other.

58. Overall, we have doubts that Gatwick would achieve the forecast growth with the NRP over the timescale claimed GAL. This applies regardless of whether a third runway is constructed at Heathrow or not. GAL has not demonstrated that its bottom up forecasts are robust either in terms of their derivation or by reference to subsequent benchmarking, despite more recent analysis.

Implications for the Noise Envelope

59. At the outset, it is important to note that the parameters for the Noise Envelope have been set by referenced to a conservative fleet transition case. Such an approach is not entirely unreasonable as it represents a worst case but we consider that the long run fleet transition is probably overly conservative in the light of more recent information on aircraft orders by airlines such as easyJet, which is the largest airline user at Gatwick. The fleet transition assumptions were originally presented in Appendix 4.3.1 to the PEIR and have not subsequently been updated. Since the date of the PEIR, easyJet UK has ordered 224 new (next) generation quieter aircraft, which compares to their pre-existing orders for such aircraft at the time of the PEIR of 133. A similar pattern of new orders will apply to most airlines. Whilst it is reasonable to assume that GAL anticipated future aircraft orders in determining its fleet mix assumptions, this is not clearly stated in the Forecast Data Book (Appendix 4.3.1 to the ES [APP-075]. The Slower Fleet Transition Case used to define the Noise Envelope [Table 3.1, Appendix 14.9.5 to the ES [APP-175]) is simply no longer plausible.
60. Furthermore, to the extent that the ceiling Limit for the noise contour area is set by reference to the forecast noise at 2029 and this is a long term ceiling (ES Appendix 14.9.7 – The Noise Envelope [APP-177], paragraph 6.3.1), there is a significant risk that this has been set too high if the demand forecasts for that early year are overstated, as would appear to be the case, particularly when coupled with the more limited fleet transition assumed for the early years. This provides headroom for noise to increase in circumstances where the benefits of growth do not materialise to the extent projected by GAL. This risk of asymmetry of effects needs to be taken into account in the planning balance.

The Economic Case

61. We do not challenge the initial assessment of the operational impact of the growth projected with the NRP. However, it is important to note that if the forecasts were lower, the benefits would be lower for any given year or scenario. It seems strange however, that two different views of the operational economic impacts in terms of local employment and gross value added (GVA) have been presented – one by Oxford Economics (OE) at Appendix 2 of the Needs Case [APP-252] and one by Lichfields in the ES Chapter 17 [APP-042]. The LAs have an overarching concern to understand the impacts from the operational and construction phases at individual authority level.
62. In terms of the wider societal welfare and catalytic and impacts of the NRP, these are presented in gross terms and, significantly, in the work of Oxera on the National Economic Impact (Needs Case, Appendix 1 [APP-251]) and the OE Report [APP-251], which both assume that all passenger growth at Gatwick is entirely incremental at the national level. Given our comments above about the likelihood of the forecasts being overstated and the lack of account taken of the potential for at least some of the growth to be displaced from other airports, this substantially overstates the net benefits of expansion in both cases.

63. This is especially the case in the work of Oxera as it not only takes no account of the potential for other airports, including Heathrow, to develop additional capacity over the period, it values the benefits to users starting from average London system air fares in 2019 (Needs Case, Appendix 1 [APP-251], Table 5.4.1) that include the higher fares attained at Heathrow compared to Gatwick. In terms of the benefits to users at Gatwick, the appropriate start point would have been average Gatwick fares, reflecting the low cost nature of much of the operation, the lower proportion of long haul flights and predominance of leisure travel at the Airport. Hence, the start point for air fares in the assessment of wider economic benefits is overstated undermining the reliance that can be placed on the results.
64. Having started from too high a point, the potential benefits to users, in terms of air fare savings, are then calculated on the assumption that all passengers projected to use the NRP are incremental at the London system level and Oxera effectively reverse engineers an assumed air fare saving using an elasticity between air fares and incremental demand, i.e. what would the air fare saving have had to be to stimulate that additional growth in demand on the basis that passengers would not otherwise have travelled absent the NRP. This is not a robust methodology for assessing the value of air fare savings not least as, to the extent that all passengers are not genuinely incremental, this approach will have resulted in too great an air fare saving being calculated and, hence, overstated the benefits to users. On this basis, the economic societal-welfare benefits are likely to have been materially overstated on two counts – the starting level of average air fare and an overstatement of the demand that would be genuinely incremental.
65. It is also unclear the extent to which the WebTAG cost benefit analysis has followed the best practice guidance²³ in terms of the treatment of displacement or in using the required carbon appraisal values. Whilst there is no requirement for such an appraisal in connection with a planning application (paragraph 1.1.4 of the Guidance), the errors in the analysis undertaken would diminish any weight that could be attached to the national level benefits claimed.
66. The OE report (The Economic Impact of Gatwick Airport [APP-252]) uses an approach of considering tourism (Figure 4.3) and trade (Figure 4.5) implications individually. This is a more usual approach. However, it is important to note that the benefits calculated represent the gross impact of the NRP, assuming that all passengers using the NRP are incremental at the UK level, which is highly unlikely to be the case to the extent claimed by GAL in the light of our comments above. So, whilst this approach avoids the methodological difficulties of the Oxera approach, it nonetheless overstates the benefits when displacement from other airports is taken properly into account or if, more likely, the level of demand is overstated in the first place.
67. A further issue in the assessment of wider economic benefits relates to the asserted local catalytic impact of the area in terms of the role of expansion in attracting other economic activity to the local area. Oxera, in Appendix 17.9.2 of the ES [APP-200] sets out a methodology for estimating the catalytic footprint of the Airport in the local area. The methodology relies on estimating total employment in the area around each airport and relating that to the scale of activity to estimate how employment might grow as an airport moves up the size scale in terms of an elasticity which is then applied to the traffic growth at Gatwick.

²³ WebTAG Unit A5.2 Aviation Appraisal November 2023.

68. This methodology was discussed at TWGs in November 2022 and August 2023 and the concerns expressed about this methodology in November are not captured in the record of engagement at Table 17.3.3 of the ES Chapter 17 [APP-042], nor has any attempt been made to address these concerns, albeit further discussions were held in February 2024. The concerns derive from three causes:
- the process for estimating levels of demand arising in the catchment area of each of the cross section of airports used (ES Appendix 17.9.2 [APP-200], Annex 5, Figure A5.1) uses a theoretical relationship, derived in Italy, which takes no account of actual levels of demand nor which airport the passengers actually used. It was recommended to GAL that Civil Aviation Authority (CAA) passenger survey data was used instead to ensure that the levels of demand in each catchment area were representative of actual demand in the catchment area of airports in the UK²⁴ and to calibrate how much of the local demand was related to the level of air services at the relevant local airport;
 - the scale of catchment areas used for each of the airports in the sample varied significantly such that the relationship between the estimated volume of passengers and the total employment in the area could be skewed by the scale of the area being considered and also by the scale of overall activity at an airport, meaning that larger airports would generally provide a greater level of service to local passengers than a smaller airport, with different consequential effects at all scales. The model appears to have ascribed all passenger demand estimated for an area as being related to an individual airport. So, for example, no account was taken of the fact that much of the demand arising in Cornwall uses Bristol Airport and much of the demand from South Yorkshire uses Manchester, East Midlands or Leeds Bradford Airports etc.. Hence, employment in any of these locations cannot be safely ascribed simply to the local airport and account would need to be taken of the specific contribution of each airport in order to isolate the true effects;
 - No account was taken of other factors that could boost or diminish total employment in a locality, e.g. Enterprise Zones, regeneration initiatives or other local economic factors.
69. The methodology was applied by Oxera to estimate the effect of a change in the total air passengers locally due to the project by applying the growth rate (ES Appendix 17.9.2 [APP-200], paragraph 6.2.2) in total passengers then taking the elasticity of total employment to total passengers and using this to generate an estimate of the proportionate growth in total employment in each of the study areas around Gatwick (e.g. the Gatwick Diamond) so as to identify the uplift in other employment that could be ascribed to the NRP. The direct, indirect and induced employment estimates arising from growth are then deducted to produce an estimate of catalytic employment and GVA as set out in Table 6.4 (ES Appendix 17.9.2 [APP-200]).
70. Whilst the methodology might be a reasonable basis for assessing the effect of airport growth on overall employment in an area, this is only robust to the extent that the number of air passengers deriving from any given area is robust and they are properly related to the airport concerned, i.e. to the extent that air passenger demand in the

²⁴ We note that the methodology adopted for estimating levels of demand in the academic paper was applied in the circumstances where there is no actual data on the surface origins and destinations of passengers and how these relate to the catchment areas of individual airports. This is not the case in the UK.

vicinity of Gatwick uses Heathrow Airport, it would be wrong to ascribe the uplift in catalytic employment in the area solely to growth at Gatwick. Given the availability of robust CAA data on passenger origins and destinations in the UK, particularly across the South East of England, we consider this data should have been used as the basis for deriving the relationship. This has been discussed at a TWG on 16th February 2024 and further feedback from GAL is awaited. As things stand, we have little confidence that the estimates of the catalytic impact of the NRP at a local level are robust.

71. Ultimately, for the reasons explained above, the wider economic benefits of the NRP are almost certainly substantially overstated and this is material to assessing the balance between such benefits and any environmental impacts.

Conclusion

72. Our overall conclusion is that the level of increase in capacity attainable from the NRP has been overstated by GAL and that, as a consequence, levels of usage – the demand forecasts – have been overstated. It is likely that achieving the claimed throughput in peak periods may require different use of the departure routes resulting in potentially greater environmental effects.
73. The methodology by which the demand forecasts have been derived is not robust, even if the underpinning assumptions as to the capacity attainable with two runways in use was correct.
74. For similar reasons, 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. This may mean that the differences in the environmental impacts with and without development may have been understated.
75. 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.
76. The wider economic benefits of the proposed development 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. The methodology by which the wider catalytic impacts in the local area has been assessed is not robust and little reliance can be placed on this assessment.
77. 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.