



The Planning Inspectorate

Appeal Decision

Inquiry held between 20 July – 8 October 2021

Site visits made on 22 July, 25-26 August, 13 October 2021

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Inspectors appointed by the Secretary of State

Decision date: 2 February 2022

TOWN AND COUNTRY PLANNING ACT 1990

APPEAL BY

BRISTOL AIRPORT LTD

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GLOSSARY

ANPS	Airports National Policy Statement: new runway capacity and infrastructure at airports in the South-East of England (June 2018)
AONB	Mendip Hills Area of Outstanding Natural Beauty
APF	Aviation Policy Framework (March 2013)
APU	Auxiliary Power Unit
AQAP	Air Quality Action Plan
AQG	Air Quality Guidelines
AQS	Air Quality Standards
AS	Aviation Strategy 2050: the Future of UK Aviation (December 2018)
ASAS	Air Surface Access Strategy
ATM	Air Traffic Movements
BA	Bristol Airport
BAL	Bristol Airport Limited (the appellant)
BAAN	Bristol Airport Action Network
BALPA	British Airlines Pilots Association
CAA	Civil Aviation Authority
CBA	Cost Benefit Analysis
CCC	Committee on Climate Change
CCCAP	Carbon and Climate Change Action Plan
CD	Core Document
CIL	Community Infrastructure Levy
CS	North Somerset Core Strategy (adopted January 2017)
COP26	United Nations Climate Change UK Conference 2021
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CPO	Compulsory Purchase Order
dB	Decibel
DfT	Department for Transport
DMP	Sites and Policies Plan Part 1: Development Management Policies (adopted July 2017)
DMRB	Design Manual for Roads and Bridges
EIA	Environmental Impact Assessment
EIR	Economic Impact Report
ENG	Environmental Noise Guidelines – World Health Organisation (2018)
eGPU	electronic Ground Power Unit
ES	Environmental Statement
EU	European Union
FR	Forecasting Report
GBA	Green Belt Assessment
GBI	Green Belt Inset
GCN	Guidelines for Community Noise – World Health Organisation (1999)
GHG	Greenhouse Gas
GVA	Gross Value Added
Ha	Hectares
HIA	Health Impact Assessment
INQ	Inquiry Document
ICCAN	Independent Commission on Civil Aviation Noise
ICAO	International Civil Aviation Authority
J	Junction
LOAEL	Lowest Observed Adverse Effect Level
LVIA	Landscape and Visual Impact Assessment
MBU	Beyond the Horizon – the future of UK aviation: making best use of

	existing runways (June 2018)
mppa	Million Passengers per Annum
MSCP	Multi-Storey Car Park
NH	National Highways
NNG	Night Noise Guidance – World Health Organisation (2009)
NO _x	Oxides of Nitrogen
NPPF	National Planning Policy Framework (as revised July 2021)
NPSE	Noise Policy Statement for England (2010)
NSC	North Somerset Council
PCAA	Parish Council Airport Association
PDS	Parking Demand Study
PDSU	Parking Demand Study Update
PEC	Predicted Total Contributions
PoE	Proof of Evidence
PM _{2.5/10}	Particulate Matter
PPG	Planning Practice Guidance
PS	Parking Strategy
PSED	Public Sector Equality Duty
PTI	Public Transport Interchange
PTMS	Public Transport Modal Share
QC	Quota Count
RFC	Ratio to Flow Capacity
RfR	Reason for Refusal
RSA	Road Safety Audit
S106	Section 106 of the Town and Country Planning Act 1990
SAC	Special Area of Conservation
SBL	Southern Bristol Link
SCC	Somerset County Council
SEL	Single Event Level
SOAEL	Significant Observed Adverse Effect Level
SoCG	Statement of Common Ground
SoNA	Survey of Noise Attitudes
SoS	Secretary of State
SPD	Supplementary Planning Documents
SPLS	Sutherland Property & Legal Services
TA	Transport Assessment
TAA	Transport Assessment Addendum
UAEL	Unacceptable Adverse Effect Level
UFPs	Ultra Fine Particles
UK ETS	UK Emissions Trading Scheme
UU	Unilateral Undertaking
WCHAR	Walking, Cycling and Horse-Riding Assessment and Review
WHO	World Health Organisation
XR	Extinction Rebellion
ZTV	Zone of Theoretical Visibility

Appeal Ref: APP/D0121/W/20/3259234

Bristol Airport, North Side Road, Felton, Bristol, BS48 3DY

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
 - The appeal is made by Bristol Airport Limited against the decision of North Somerset Council.
 - The application Ref 18/P/5118/OUT, dated 5 December 2018, was refused by notice dated 19 March 2020.
 - The development proposed is an outline planning application (with reserved matters details for some elements included and some elements reserved for subsequent approval) for the development of Bristol Airport to enable a throughput of 12 million terminal passengers in any 12 month calendar period, comprising: 2no. extensions to the terminal building and canopies over the forecourt of the main terminal building; erection of new east walkway and pier with vertical circulation cores and pre-board zones; 5m high acoustic timber fence; construction of a new service yard directly north of the western walkway; erection of a multi-storey car park north west of the terminal building with five levels providing approximately 2,150 spaces; enhancement to the internal road system including gyratory road with internal surface car parking and layout changes; enhancements to airside infrastructure including construction of new eastern taxiway link and taxiway widening (and fillets) to the southern edge of Taxiway GOLF; the year-round use of the existing Silver Zone car park extension (Phase 1) with associated permanent (fixed) lighting and CCTV; extension to the Silver Zone car park to provide approximately 2,700 spaces (Phase 2); the provision of on-site renewable energy generation; improvements to the A38; operating within a rolling annualised cap of 4,000 night flights between the hours of 23:30 and 06:00 with no seasonal restrictions; revision to the operation of Stands 38 and 39; and landscaping and associated works.
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Decision

1. The appeal is allowed and outline planning permission (with reserved matters details for some elements included and some elements reserved for subsequent approval) is granted for the development of Bristol Airport to enable a throughput of 12 million terminal passengers in any 12 month calendar period, comprising: 2no. extensions to the terminal building and canopies over the forecourt of the main terminal building; erection of new east walkway and pier with vertical circulation cores and pre-board zones; 5m high acoustic timber fence; construction of a new service yard directly north of the western walkway; erection of a multi-storey car park north west of the terminal building with five levels providing approximately 2,150 spaces; enhancement to the internal road system including gyratory road with internal surface car parking and layout changes; enhancements to airside infrastructure including construction of new eastern taxiway link and taxiway widening (and fillets) to the southern edge of Taxiway GOLF; the year-round use of the existing Silver Zone car park extension (Phase 1) with associated permanent (fixed) lighting and CCTV; extension to the Silver Zone car park to provide approximately 2,700 spaces (Phase 2); the provision of on-site renewable energy generation; improvements to the A38; operating within a rolling annualised cap of 4,000 night flights between the hours of 23:30 and 06:00 with no seasonal restrictions; and landscaping and associated works at Bristol Airport, North Side Road, Felton, Bristol, BS48 3DY in accordance with the terms of the application, Ref 18/P/5118/OUT, dated 5 December 2018, subject to the conditions set out in the schedule to this decision.

Procedural Matters

2. In light of the scale of the Inquiry including the number of Rule 6 parties, the amount of public interest, the number of written representations and the linked Compulsory Purchase Order (CPO) Inquiry, it was decided that the appeal would be considered by a Panel of three Inspectors at two separate, but linked, Inquiries. The Panel would wish to record their thanks to Joanna Vincent, the Programme Officer, for her assistance with the running of the events.
3. The Inquiry sat for 36 days between 20 July and 8 October 2021 at Weston-Super-Mare Town Hall. Due to capacity restrictions at the venue and with the agreement of all parties, the Inquiry comprised both physical and virtual elements. To avoid the repetition of evidence, the CPO and s78 Inquiries were opened at the same time. Although the s78 appeal is transferred for determination by the Panel, the CPO has not been delegated, and therefore the Panel will be reporting separately to the Secretary of State (SoS) in relation to that matter.
4. Rule 6 status was granted to the British Airlines Pilots Association (BALPA), the Parish Council Airport Association (PCAA), Bristol Airport Action Network (BAAN), Sutherland Property & Legal Services (SPLS) and Extinction Rebellion Elders (XR).
5. The Panel undertook unaccompanied site visits on 22 July and 25 August 2021 with the main parties providing an agreed list of viewpoints. A further site visit of the airport itself was carried out on 26 August. An early morning site visit took place on 13 October in order to understand the noise impacts of early morning take-offs between 6-7:30am.
6. Although the application is in outline, full details have been submitted in relation to the proposed extensions to the terminal building and highways improvements on the A38. For the outline elements design and size parameters have been defined which allows an assessment of the environmental effects of the proposed development to be undertaken. Table 1.1 of the Planning Statement¹ clarifies which matters are in outline and which are subject to detailed consideration. A full list of the submitted plans and supporting documentation is contained at paragraph 1.4.2 and 1.4.3 of the Planning Statement.
7. The appeal scheme qualifies as an Environmental Impact Assessment (EIA) development and therefore, an Environmental Statement (ES) was submitted with the planning application to assess the likely significant effects on a number of topic areas scoped into the report.²
8. Following requests under Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017 (EIA Regs) further information was submitted to North Somerset Council (NSC) in April³ and October⁴ 2019. The additional information provided in response to the Regulation 25 requests did not result in any changes to the findings of the ES in terms of the assessment of likely significant effects. As part of the

¹ CD: 2.03

² CD: 2.05.01-49

³ CD: 3.04.01-13

⁴ CD: 3.06.01-23

- appeal, the Appellant (BAL) submitted an ES Addendum in November 2020⁵ in order to reflect changes to the growth scenarios arising from the Covid-19 pandemic.
9. Following review, the ES and the ESA are considered satisfactory in terms of Schedule 4 of the EIA Regs. The Panel have therefore taken account of the ES and ESA accordingly.
 10. A signed and dated S106 agreement (S106) was submitted at the end of the Inquiry together with a Community Infrastructure Levy (CIL) Compliance Statement.⁶ Amongst other things, the document contains obligations in respect of transport and travel, the A38 highway works, air quality, noise, a Skills and Employment Plan and financial contributions to NSC. The proposed obligations need to be assessed against the statutory CIL tests; a matter addressed later in this decision.
 11. In addition to the S106, a Unilateral Undertaking (UU) was submitted after the close of the Inquiry.⁷ It contains undertakings in respect of an Air Surface Access Strategy (ASAS) and new public transport services, along with a noise mitigation scheme.
 12. Signed Statements of Common Ground (SoCG) relating to overarching and topic-based matters were submitted before the close of the Inquiry.⁸ The Panel have had regard to these in reaching its decision.
 13. Pre-Inquiry Case Management Conferences were held on 8 March and 30 June 2021 to discuss the arrangements for the Inquiry and deadlines for the submission of various documents. Summaries of the conferences were subsequently sent to the main parties.
 14. The Government published its revised National Planning Policy Framework (NPPF) on 20 July 2021.⁹ The parties were given the opportunity to comment on any relevant implications for the appeal orally and within written representations during the event.
 15. On 14 July the Department for Transport (DfT) published its 'Decarbonising Transport: A Better Greener Britain' strategy¹⁰ alongside the 'Jet Zero Consultation: A consultation on our strategy for net zero aviation'¹¹, 'Jet Zero Consultation: Evidence and Analysis'¹² and 'Targeting net zero – next steps for the Renewable Transport Fuels Obligation: Government response'.¹³ The parties were invited to submit an addendum to their proofs of evidence on these matters and these were discussed during the event.
 16. Written representations following the Government's publication of 'Valuation of greenhouse gas emissions: for policy appraisal and evaluation' dated 2 September 2021¹⁴ were also submitted and discussed during the Inquiry.

⁵ CD: 2.19-2.23

⁶ INQ/117, INQ/119 and INQ/113

⁷ INQ/118

⁸ INQ/115 and INQ/116

⁹ CD: 5.08

¹⁰ CD: 9.134

¹¹ CD: 9.135

¹² CD: 9.136

¹³ CD: 9.137

¹⁴ INQ/054

17. On 22 September 2021, the World Health Organization (WHO) issued new guidelines on the health effects of air quality on humans.¹⁵ Parties were also invited to submit written statements on this document.¹⁶
18. A separate application for a park and ride scheme for Bristol Airport (BA) at Heathfield Lane, Hewish¹⁷ was refused by NSC during the course of the Inquiry.¹⁸ That decision has apparently been appealed and will be subject to a separate decision in due course.
19. Following the close of the Inquiry, on 19 October 2021 the Government launched a policy paper for their Net Zero Strategy, entitled Build Back Greener.¹⁹ The parties were invited to make written submissions on the implications of this document and the responses²⁰ received have been taken into account.
20. The Environment Act 2021 received Royal Assent on 9 November 2021. At around the same time the Glasgow Climate Pact²¹ was published following the conclusion of the United Nations Climate Change UK Conference 2021 (COP26) and a proposal to increase capacity at Luton airport by 1 million passengers per annum (mppa) was approved by Luton Borough Council. The Panel wrote to the parties inviting comments on all of the abovementioned events and the comments received²² have been taken into account in this decision.
21. Finally, in January 2022 BAAN submitted a bundle of material relating to a legal challenge against the grant of planning permission by Eastleigh Borough Council related to the proposed expansion of Southampton airport. BAAN's submission as well as the comments of the other parties in relation to it,²³ have all been taken into account.

Applications for costs

22. At the Inquiry applications for costs were made by BAL against NSC and by NSC against BAL. These applications will be the subject of separate decisions.

Site and Surrounding Area

23. BA is located approximately 11km south-west of Bristol city centre, within the local authority administrative area of North Somerset and the parish of Wrington. To the east, the villages of Felton and Winford are located 1.6km and 3.2km from the airport respectively. The settlements of Cleeve, Claverham and Yatton are located to the west. BA occupies an elevated position on a ridge of high ground called Broadfield Down, 165–192 metres above Ordnance Datum.
24. The area surrounding BA is predominately open, undulating countryside. The boundary of the Mendip Hills Area of Outstanding Natural Beauty (AONB) is some 3km south of the airport. The site falls outside, but within the consultation zone for the North Somerset and Mendip Bats Special Area of

¹⁵ INQ/085

¹⁶ INQ095-098

¹⁷ This is the proposal promoted by Sutherland Property & Legal Services client

¹⁸ INQ/050 Application reference 20/P/1438/FUL

¹⁹ INQ/126

²⁰ INQ/127-130

²¹ INQ/135

²² INQ/131-134

²³ INQ/136-139

Conservation (SAC) which is designated because of its importance for Greater and Lesser Horseshoe Bats.

25. Most of BA is in the Green Belt, save for 44 hectares (ha) at its north side. This area, known as the Green Belt Inset (GBI), includes the passenger terminal, air traffic control tower, hotel, Multi Storey Car Park (MSCP) 1 and surface car parks. The central part of the airport comprises the runway, aircraft taxiways and the aircraft stands. The south side of the airport includes private aviation buildings, a helicopter unit, fire station, new administration offices for BA staff (known as Lulsgate House) and long stay Silver Zone car park and a taxi waiting area. BA is open 24 hours a day, 365 days a year.
26. Access to BA is from two roundabouts on the A38, a major regional distributor road connecting Bristol to the north with Bridgewater to the south. The northern roundabout serves the GBI which includes the main passenger terminal and adjoining car parks. The south side of the airport is served by the southern roundabout. A third access for emergency and service vehicles is located on Downside Road which connects the A38 to the A370 to the west. The A370 is the main road connecting Bristol to Weston Super Mare and also provides access to Junction (J) 21 of the M5 motorway approximately 11km west of the airport. In addition to these main routes, the wider area is criss-crossed by a network of rural lanes.

Relevant Background and Planning History

27. BA is the main airport for the South-West of England, providing a range of international and domestic flights. It opened in 1957²⁴ and handled 33,000 passengers in its first year of operation. The airport expanded steadily through the 1960s, 70s and 80s driven partly by the popularity and affordability of foreign holidays. Planning permission was granted in 1995 for a replacement passenger terminal and re-routing part of the A38 next to the airport.²⁵ At that time BA handled 2.1 mppa. This increased to 3.9 mppa by 2003 and 6.3 mppa by 2008.
28. In 2011, BAL obtained planning permission from NSC for the major expansion of BA to accommodate 10 mppa²⁶ (the 10 mppa permission). The permission included over 30 separate developments and was subject to a Section 106 agreement. The main obligations in that S106 required BA to: fund new and more frequent public transport services to and from the airport; provide an environmental mitigation fund; develop a skills and employment plan; make financial contributions towards strategic infrastructure projects and undertake air quality monitoring. Parts of the 10 mppa permission, most notably an additional multi-storey car park (MSCP 2) have yet to be implemented.
29. By 2019 BA handled 8.9 million passengers making it the ninth busiest airport in the UK and the third largest regional airport in England.
30. The application subject to this appeal was submitted to NSC in December 2018. It was considered by the Planning Committee and contrary to the

²⁴ The airport can be traced as far back as 1930. It was requisitioned by the Air Ministry at the outset of the Second World War.

²⁵ LPA Ref: 1287/91

²⁶ CD: 4.01b LPA Ref: 09/P/1020/OT2 Decision Notice

recommendation of professional officers,²⁷ permission was refused by notice dated 19 March 2020.²⁸

The Proposal

31. The application seeks outline planning permission, with some details included, to increase the operational capacity of BA from its current cap of 10 mppa up to 12 mppa. It comprises the following elements:
- Extensions to the terminal building on its west and southern sides and canopies over the forecourt of the main terminal building;
 - Erection of a new east walkway and pier with vertical circulation cores, preboard zones and a 5m high acoustic timber fence;
 - Construction of a new service yard directly north of the western walkway;
 - To meet the increased demand for parking the proposal includes 1) the erection of a further MSCP providing approximately 2,150 spaces (referred to as 'MSCP3'), 2) year-round use of the existing Silver Zone car park extension ("Cogloop 1") and 3) a further extension to the Silver Zone car park to provide approximately 2,700 spaces ("Cogloop 2");
 - Surface access improvements including enhancements to the A38 extending northwards from the main airport access roundabout to circa 130m beyond West Lane (including sections of Downside Road and West Lane) and an improved internal road system with gyratory and internal surface car parking;
 - Enhancements to airside infrastructure including construction of a new eastern taxiway link and taxiway widening (and fillets) to the southern edge of Taxiway GOLF; and
 - Operational changes including a cap of 4,000 night flights between the hours of 23:30 and 06:00 over two consecutive seasons (a 12 month period) (merging the current night movement limit of 3,000 in summer and 1,000 in winter) and revisions to the use of aircraft stand numbers 38 and 39.
32. The application effectively seeks to change the following planning conditions forming part of the 2010 permission:
- Condition 65, which imposes the current passenger cap of 10 mppa, in order to allow a throughput of 12 mppa;
 - Condition 38, which currently limits night-time flights (namely, those between 23:30 and 06:00 hours) to 4000 a year with a maximum of 3000 flights during British Summer Time and 1000 movements in British winter-time. The proposed amendment will remove the seasonal restrictions on the number of night flights but the overall cap of 4000 night flights a year will remain unchanged;

²⁷ CD: 4.11-4.14

²⁸ CD: 4.16

- Condition 34, which allows only 'tow on push back' on aircraft stands 38 and 39 in order to allow the use of Auxiliary Power Units (APUs) on these stands; and
- Condition 9, in order to remove the seasonal restriction on the use of the car park known as Cogloop 1.

Planning Law, Policy and Guidance

Legislation

33. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the development plan unless material considerations indicate otherwise. Other legislation is referenced where relevant throughout the decision.

The Development Plan and other Local Policy

34. The development plan includes the North Somerset Core Strategy (adopted January 2017) (CS),²⁹ the Sites and Policies Plan Part 1: Development Management Policies (adopted July 2016) (DMP)³⁰ and the Sites and Policies Development Plan Part 2: Site Allocations Plan (adopted April 2018).³¹ Relevant policies, including those cited in the Reasons for Refusal (RfRs) were agreed by parties and set out in the General Matters SoCG. These documents are also supported by a suite of Supplementary Planning Documents (SPD).³²
35. At the local level, the CS sets priorities for delivering a prosperous economy and living within environmental limits. One of the primary objectives of the CS³³ is to "support and promote major employers in North Somerset, such as Bristol Airport, to ensure continued employment security and economic prosperity." CS Policy CS23 is a specific policy for BA. It states that "proposals for the development of BA will be required to demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure."
36. DMP Policy DM50 is also an airport specific policy and permits development in the GBI provided that (amongst other things) environmental impacts such as emissions are minimised, and there is no unacceptable noise impact; it is suitably sited, designed and landscaped so as not to harm the surrounding landscape; and appropriate provision is made for surface access to the airport, including highway improvements and/or traffic management schemes to mitigate the adverse impact of airport traffic on local communities, together with improvements to public transport services.
37. CS Policies CS1, CS2 and DMP Policy DM2 are concerned with addressing climate change and reducing greenhouse gas (GHG) emissions. NSC's decision notice refers to only one CS policy in relation to climate change. That is policy CS1 which states, amongst other matters, that NSC is committed to reducing carbon emissions and tackling climate change, mitigating further impacts and supporting adaptation. One of the principles which guide development is that it should demonstrate a commitment to reducing carbon emissions, including

²⁹ CD: 5.06

³⁰ CD: 5.04

³¹ CD: 5.26

³² Including CD: 5.21-5.25

³³ Page 20

- reducing energy demand through good design, and utilising renewable energy where possible.
38. CS Policy CS3 relates to environmental impacts. Development which, on its own or cumulatively, would result in air, water or other environmental pollution or harm to amenity, health or safety will only be permitted if the potential adverse effects would be mitigated to an acceptable level by other control regimes, or by measures included in the proposals, by the imposition of planning conditions or through a planning obligation. Policy CS26 relates to health and wellbeing and requires the submission of a Health Impact Assessment (HIA) on all large-scale developments.
39. CS Policy CS6 notes that the Green Belt boundaries remain unchanged and that further amendments to the Green Belt at BA will only be considered once long-term development needs have been identified and exceptional circumstances demonstrated. DMP Policy DM12 states that inappropriate development is, by definition, harmful to the Green Belt and will not be approved except in very special circumstances.
40. CS Policy CS4, and DMP Policy DM8 seek to protect ecology and biodiversity, including SACs. CS5 and DM10 deal with landscape matters, requiring that development does not adversely affect the landscape character of the district and respects the tranquillity of an area. DM11 states that development within or within the setting of the Mendip Hills AONB should not have an unacceptable adverse effect on the landscape, setting and scenic beauty.
41. Broad transport matters are also covered by CS Policies CS10, CS11 which encourage improvement and integrated transport networks and allow for a wide choice of modes of transport, and the provision of adequate parking. DMP Policies DM20, DM24, DM26, and DM27, also deal with transport matters through safeguarding land for major transport schemes, protection of highway safety, requirement of travel plans for major development schemes and bus accessibility. Policies DM30 and DM31 relate to off-airport car parking and air safety.
42. This list is not exhaustive and other policies relating to infrastructure and other wider matters are referenced, as necessary, in this decision.

Regional Policy

43. At the regional level, page 22 of the West of England Local Enterprise Partnership Strategic Economic Plan (2015 – 2030)³⁴ identifies the connectivity provided by BA as a strength of the region and highlights an opportunity for meeting investment and jobs targets through major development at BA.
44. The foreword to the 2019 West of England Local Industrial Strategy²¹², recognises BA as a strategic economic asset for the region and its role in making the West of England a “*critical gateway to the nation and the world.*”

The National Planning Policy Framework

45. The latest version of the NPPF was issued in July 2021. Under the initial heading ‘Achieving Sustainable development’ it is stated that the purpose of the planning system is to contribute to the achievement of sustainable

³⁴ CD: 11.02

- development, and that this can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. This approach, stemming originally from Bruntland in 2013, underpins the remaining policies and approaches in the NPPF.
46. Like earlier versions the revised NPPF emphasises that the purpose of the planning system is to contribute to the achievement of sustainable development. It makes it plain that planning policies and decisions should play an active role in guiding development towards sustainable solutions, but should take local circumstances into account, to reflect the character, needs and opportunities of each area.
 47. Paragraph 8a) sets out the overarching economic, social and environmental objectives. These are interdependent and need to be pursued in mutually supportive ways. To ensure that sustainable development is pursued in a positive way, there is a presumption in favour of sustainable development at the heart of the NPPF. Paragraph 11c) explains that, for decision-taking, this means approving development proposals that accord with an up-to-date development plan without delay.
 48. Paragraph 81 provides that significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. Paragraph 92 states that decisions should aim to achieve healthy places which enable and support healthy lifestyles, especially where this would address identified health needs.
 49. Paragraph 104 requires that transport issues should be considered from an early stage so that potential impacts can be addressed and so the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account, including appropriate opportunities for avoiding or mitigating adverse effects and for net environmental gains.
 50. Paragraph 105 states, in part, that *“significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health.”*
 51. At para 106(e) the NPPF states that planning policies should: *“provide for any large-scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy.”* At Paragraph 106(f) it goes on to say that planning policies should *“recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure...and the Government’s General Aviation Strategy.”*
 52. Paragraph 110 seeks to ensure that appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location, safe and suitable access to the site can be achieved for all users and any significant impacts from the development on the transport network (in terms of highway safety), can be cost effectively mitigated to an acceptable degree.
 53. Paragraph 111 advises that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway

- safety, or the residual cumulative impacts on the road network would be severe.
54. NPPF Section 13 is entitled "Protecting the Green Belt", with paragraph 137 making it clear that the Government attaches great importance to Green Belts, the fundamental aim of which is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.
 55. Paragraph 147 states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Paragraph 148 goes on to explain that, when considering any planning application, substantial weight should be given to any harm to the Green Belt, and that very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.
 56. Paragraph 152 states that the planning system should support the transition to a low carbon future in a changing climate. It should help to: shape places in ways that contribute to radical reductions in GHG emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.
 57. Paragraph 174 states that planning decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes and sites of biodiversity value, recognising the intrinsic character and beauty of the countryside, minimising impacts on and providing net gains for biodiversity and addressing unacceptable levels of pollution.
 58. Paragraph 176 states that great weight should be given to conserving and enhancing landscape and scenic beauty in Areas of Outstanding Natural Beauty which have the highest protection in relation to these issues.
 59. Paragraph 180 sets out principles for dealing with habitats sites, and seeks a restrictive approach to development which would have an adverse effect. Paragraph 181 identifies SACs as being given the same protection as habitats sites.
 60. Paragraph 185 requires that development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment as well as the potential sensitivity of the site or the wider area to impacts that could arise from development. Decisions should mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development and avoid noise giving rise to significant adverse impact on health and the quality of life. Proposals should identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.
 61. Paragraph 186 states that planning decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas (AQMAs) and Clean Air Zones, and the cumulative impacts from individual sites

in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. Planning decisions should ensure that any new development in AQMAs and Clean Air Zones is consistent with the local air quality action plan.

62. At paragraph 188, the NPPF states that the focus of decisions should be on whether a proposed development is an acceptable land use, rather than focussing on the control of emissions which are the subject of separate pollution control regimes. It is stated that it should be assumed that such other regimes will operate effectively.
63. Other relevant paragraphs in the NPPF are referenced, as appropriate, later in this decision. The Planning Practice Guidance (PPG) provides further context to the NPPF and is also drawn upon in the decision as necessary.

Build Back Better

64. Published in March 2021, Build Back Better: our plan for growth³⁵ seeks to build on three core pillars of growth (infrastructure, skills and innovation), as part of the recovery from the Covid 19 pandemic and following the departure of the UK from the European Union (EU). It seeks to 'level up' the whole of Britain, support the transition to net zero and support a global Britain.

National Aviation Policy

65. The Aviation Policy Framework³⁶ (March 2013) (APF), though some eight years old, continues to set out the Government's high-level objectives and policy for aviation. The APF deals with the Government's primary objective related to long-term economic growth, within which the aviation sector is seen as a major contributor. It seeks to ensure that the UK's air links continue to make it one of the best-connected countries in the world. Support is given to growth which maintains a balance between the benefits of aviation and its costs, particularly in relation to negative effects on climate change, noise and air pollution.³⁷ In relation to environmental impacts the APF sets an objective of ensuring that the aviation sector makes a significant and cost effective contribution towards reducing global emissions."³⁸
66. A key priority of the APF is to make better use of existing runway capacity at all UK airports. Beyond 2020, it identifies that there will be a capacity challenge at all of the biggest airports in the South East of England. At paragraph 1.23 the APF recognises the important economic role of regional airports in accommodating wider forecast growth in demand and taking pressure off London's main airports. It expressly acknowledges the vital role of BA in the economic success of the South-West region.
67. At paragraph 1.24 the APF states that the "*Government wants to see the best use of existing airport capacity*" and support the growth of airports outside the South-East. However, it also recognises that the "*development of airports can have negative as well as positive local impacts, including on noise levels*" and therefore proposals for expansion should be "*judged on their individual merits,*

³⁵ CD: 11.10

³⁶ CD: 6.01

³⁷ Para 5

³⁸ Paras 12 and 14

taking careful account of all relevant considerations, particularly economic and environmental impacts."

68. A suite of documents was published in 2018 in respect of future aviation policy for the UK. Beyond the Horizon - The Future of UK Aviation: Next steps Towards and Aviation Strategy³⁹ (April 2018) (FA), Beyond the Horizon – the future of UK aviation: Making Best Use of existing runways⁴⁰ (June 2018) (MBU), and Aviation Strategy 2050: the Future of UK Aviation⁴¹ (December 2018) (AS). Each of these documents recognises the importance of aviation growth while acknowledging the need to tackle environmental impacts.

69. MBU provides an analysis of the Government's call for evidence on aviation policy. It provides a policy statement dealing with airports beyond Heathrow making best use of their existing runways, taking into account economic and environmental considerations. It considers that growth of regional airports should take careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations.⁴² It is worth setting out the key section in full:

"Therefore the government is supportive of airports beyond Heathrow making best use of their existing runways. However, we recognise that the development of airports can have negative as well as positive local impacts, including on noise levels. We therefore consider that any proposals should be judged by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations. This policy statement does not prejudice the decision of those authorities who will be required to give proper consideration to such applications. It instead leaves it up to local, rather than national government, to consider each case on its merits."

70. MBU, under the heading 'Role of national policy', provides that increased carbon emissions be dealt with at the national level.⁴³

71. The Government reaffirmed its position on MBU on two occasions during the Inquiry - first as part of the Jet Zero consultation⁴⁴ and second in response to NSC's letter to the DfT.⁴⁵ In both cases it was confirmed that MBU remains *"the most up-to-date policy on planning for airport development"* and *"continues to have full effect, for example, as a material consideration in decision-taking on applications for planning permission."*

72. NSC and others argued that MBU should be afforded limited or no weight as it pre-dates the Government's adoption of the 2050 net-zero target and the Sixth Carbon Budget in June 2021, and was published before the inclusion of international aviation in domestic targets. Certainly, these are material considerations, and are issues which may or may not change the policy approach in the future. But MBU itself recognises there is uncertainty over

³⁹ CD: 6.03

⁴⁰ CD: 6.04

⁴¹ CD: 6.05

⁴² Para 1.29

⁴³ Para 1.11 – 1.13

⁴⁴ CD: 9.135 Footnote 39

⁴⁵ INQ/042

climate change policy and over international measures, and notes that therefore matters might change after its publication.

73. The status of MBU was debated in some detail at the Inquiry. The wording used in the Government's responses does not say that it should be given 'full weight' but there is no suggestion that MBU is other than up to date. If the Government's intention had been to suggest that MBU should be given reduced weight, this could have been stated.
74. While there are many who may disagree with the direction of current Government aviation policy and specifically the approach set out in MBU, it is not the role of the Panel to question the merits or otherwise of current Government policy. APF and MBU therefore remain the most recent national policy statements and as such are material considerations. Though matters have to an extent moved on this does not make policy out of date.
75. There was also an argument put forward that MBU would only come into effect once the planning balance had been established. In effect, it would weigh for or against a proposal only once the overall conclusion has been reached. However, this approach to national policy was not supported by evidence of examples of this methodology being adopted elsewhere, and it does not appear logical.
76. The AS is the Government's final consultation document on the policy proposals for aviation strategy. It recognises the role of aviation in helping to build a global Britain and the need to support regional growth and connectivity, including as part of the importance of rebalancing the UK economy through economic growth. It also recognises that aviation must do its fair share to tackle environmental issues, including climate change as well as health impacts arising from noise and air pollution. It also emphasises the need to share the benefits from growth with the local communities.
77. Finally, the Airports National Policy Statement: new runway capacity and infrastructure at airports in the South-East of England⁴⁶ (June 2018) (ANPS) is principally concerned with a third runway at Heathrow and is not directly relevant to this case.⁴⁷

Climate Change Policy

78. In addition to national and development plan policy summarised above, there are a number of legal and policy issues which affect the consideration of climate change.
79. The Paris Agreement⁴⁸ is a legally binding (unincorporated) treaty on climate change set within the United Nations Framework Convention on Climate Change (1994). Most importantly it set a long-term temperature goal of limiting global warming to well below 2 degrees above pre-industrial levels. It remains the foundation for much subsequent legislation and guidance.
80. This Agreement was reflected in the UK by way of the Climate Change Act 2008 (CCA) (with targets amended 2019).⁴⁹ Two key obligations in the CCA are the

⁴⁶ CD: 6.09

⁴⁷ The ANPS was recently the subject of a Court of Appeal Judgement see - *R. (on the application of Plan B Earth) v Secretary of State for Transport* [2020] EWCA Civ 214.

⁴⁸ CD: 9.26

⁴⁹ CD: 9.002

adoption of the UK's Net Zero Target by 2050 and the requirement to set five yearly carbon budgets, twelve years in advance, so as to meet the target.

81. In July 2021 two documents were published by the Government. These were 'Decarbonising Transport: A Better, Greener Britain and the 'Jet Zero Consultation.' The first of these is a statement of policy, while the second is a consultation document. But the main messages are not dissimilar, and they both emphasise the need for very significant action to be taken.
82. In autumn 2021 COP26 was held in Glasgow, which further heightened the importance of climate change issues in this appeal. After the close of the conference the 'Glasgow Climate Pact' was adopted (November 2021).

Noise Policy

83. National policy on noise is set out in the Noise Policy Statement for England (2010) (NPSE)⁵⁰ which aims to avoid, minimise, mitigate and where possible reduce significant adverse impacts on health and quality of life.
84. NPSE also sets out a noise exposure hierarchy, with the PPG setting out further detailed guidance. The Lowest Observed Adverse Effect Level (LOAEL) is the level above which adverse effects on health and quality of life can be detected whereby mitigation and reduction to a minimum is necessary. Significant Observed Adverse Effect Level (SOAEL) is the level above which significant adverse effects on health and quality of life occur and should be avoided. Such effects include material changes in behaviour (e.g. keeping windows closed most of the time), and potential for sleep disturbance including getting to sleep, premature awakening and difficulty going back to sleep. At this level quality of life is diminished. The PPG also introduces the concept of Unacceptable Adverse Effect Level (UAEL).
85. Both LOAEL and SOAEL recognise the need to take account of economic and social benefits of the activity causing or affected by the noise, although at SOAEL it is undesirable for such exposure to be caused.
86. The PPG also recognises that noise is a complex technical issue, and that the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. Factors include the source and absolute level of noise (including night-time noise), number of noise events and the frequency and pattern of non-continuous sources, frequency, the acoustic environment, and spectral content and general noise character.⁵¹
87. Noise can override other planning concerns where justified, but the PPG notes that it is important to look at noise in the context of the wider characteristics of a development proposal, its likely users and its surroundings, as these can have an important effect on whether noise is likely to pose a concern.⁵² Relevant factors relating to tranquillity are also identified.⁵³
88. With specific regard to aviation noise, the PPG notes that where airport expansion is considered through the planning system, it will be important for decisions to consider any additional or new impacts from that expansion, and not to revisit the underlying principle of aviation use where it is established.

⁵⁰ CD: 10.04

⁵¹ Paragraph: 003 Reference ID: 30-003-20190722 & Paragraph: 006 Reference ID: 30-006-20190722

⁵² Paragraph: 002 Reference ID: 30-002-20190722

⁵³ Paragraph: 008 Reference ID: 30-008-20190722

89. Consistent with the NPSE, the overarching objective of the APF is to limit and where possible reduce the number of people in the UK significantly affected by aviation noise. This document outlines a general principle of striking a fair balance between the negative impacts of noise and the positive impact of flights. Future growth in aviation should ensure that benefits are shared between the aviation industry and local communities. The industry must continue to reduce and mitigate noise as airport capacity grows. Mitigation must also be proportionate to the extent of the noise problem and number of people affected.
90. MBU, as previously referenced, recognises that the development of airports can have negative as well as positive local impacts, including on noise levels. It notes that, as airports look to make the best use of their existing runways, it is important that communities surrounding those airports share in the economic benefits, and that adverse impacts such as noise are mitigated where possible.
91. There is also a range of other technical documents which relate specifically to aviation and noise which are drawn upon, as necessary, below.

Air Quality Legislation and Policy

92. The Ambient Air Quality Directive 2008/50/EC,⁵⁴ in combination with the Air Quality Standards Regulations (2010)⁵⁵ set limit values for different types of pollutant that affect public health. These standards remain domestic law following the withdrawal of the UK from the EU.
93. The Government's Clean Air Strategy was published in 2019.⁵⁶ It recognises that air quality is the largest environmental health risk in the UK and that emissions from transport are a significant source. It recognises that WHO guidelines are the international benchmark for setting air quality standards and sets out a number of actions to reduce exposure to air pollution, including reducing particulate matter levels to those of the WHO 2006 guidelines and review mechanisms to consider whether there should be more challenging milestones towards WHO goals. The WHO recently published (September 2021) updated guidelines and these reduce the levels specified in the previous iterations, based on evidence of air quality effects.
94. The APF sets a policy to seek improved international standards to reduce emissions from aircraft and vehicles. It also notes that there will be additional air quality benefits as the UK progresses to a low carbon economy.
95. MBU recognises air quality impacts upon communities, and requires mitigation of local environmental issues. MBU also notes that surface transport continues to be the main contributor to local air quality emissions around airports. It states that although only 1.4% of total transport Oxides of Nitrogen (NOx) emissions come from aircraft landing and taking off, the Government wants to ensure the aviation sector plays an appropriate role in managing the emissions that it can control.
96. AS sets an expectation that airports will make the most of their regional influence to provide innovative solutions and incentives against ambitious targets which improve air quality. It sets out a number of proposed measures

⁵⁴ CD: 8.23

⁵⁵ CD: 8.3

⁵⁶ CD: 8.7

for tackling air quality, including improving monitoring of air pollution, including ultrafine particulates (UFP), the development of air quality plans to manage emissions, and development of cleaner fuels.

97. The recent Environment Act 2021 includes governance provisions to establish a framework for setting long term, legally binding environmental targets for at least 15 years for air quality (amongst other things). It also creates a specific duty to set targets on an annual mean concentration of fine particulate matter in ambient air. The Act itself does not set targets, rather it specifies that draft regulations on the process for target setting must be laid before parliament by 31 October 2022. The SoS must also review targets and the first review must be completed by 31 January 2023 with subsequent reviews subject to a 5-year cycle.

Transport and Travel Policy

98. The 'West of England Joint Local Transport Plan 4' 2020-2036⁵⁷ sets out how to achieve a well-connected sustainable transport network. It contains a number of detailed aims regarding BA and recognises the significant positive impact that BA has on the region's economy. It supports the growth of BA, while seeking to improve the environment and quality of life for residents and businesses in the area.
99. APF requires that proposals must 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, and minimise congestion and other local impacts.
100. It also states 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.
101. Surface access is also raised as a local environmental issue in MBU and in AS, whereby surface access strategies should set targets for sustainable passenger and staff travel to the airport.

Other Relevant Policy and Guidance

102. A wide range of other policy documentation was presented before the Inquiry and is summarised here. The above summary is not exhaustive and where relevant, other material was relied upon by the Panel and is cited throughout this decision.

Main Issues

103. Based upon the matters raised by the written and oral evidence of BAL, NSC, Rule 6 parties and interested persons, the main considerations in this case are summarised as follows:
1. The impact of the proposed development on GHG emissions and the ability of the UK to meet its climate change obligations;

⁵⁷ CD: 7.05

2. The effect of noise associated with the proposed development on health and quality of life;
3. The effect of air pollution associated with the proposed development on health and quality of life;
4. The effects of the proposed development upon sustainable transport objectives, the highway network, highway safety and parking provision, and
5. The extent to which the development would harm the openness of the Green Belt and/or conflict with its purposes and the extent to which the harm to the Green Belt by reason of inappropriateness, and any other Green Belt harm, is clearly outweighed by other considerations so as to amount to very special circumstances.

Reasons

104. It is first necessary to establish the baseline against which the main issues will be considered against as per the ES/ESA, given that forecasting and fleet mix was a matter of dispute between the parties.

Need and Forecasting

Need

105. Air travel has grown strongly since the 1970s and according to Government forecasts, it will continue to do so over the coming decades. This is reflected in MBU which states:

*"The updated forecasts reflect the accelerated growth experienced in recent years" and "This has put pressure on existing infrastructure, despite significant financial investments by airports over the past decade, and highlights that government has a clear issue to address."*⁵⁸

106. Air traffic forecasting is concerned with the assessment of future demand for air travel. People travel for a variety of reasons, including leisure, business and visiting family. Population and economic growth, disposable income and the cost of travel are amongst the main drivers of demand for air travel. The long-term relationship between these factors was not a matter of dispute at the Inquiry nor was there any suggestion that the demand for air travel will not continue to grow in the long-term in line with the 2017 UK Aviation Forecasts. These project a significant increase in demand for flights from people living in the South-West and South Wales.

107. The expansion of BA is seen in that context. As BAL put it, *"people don't fly because there are airports; rather, there are airports because people want to fly."* The need for the appeal scheme is driven by those people in BA's catchment area who want to go abroad on holiday, to visit relatives or travel on business.

Forecasting

108. BAL's forecasts include detailed passenger and air traffic movements (ATM) forecasts as well as an assessment of potential displacement.⁵⁹ The forecasting

⁵⁸ Para 1.4

⁵⁹ See Socio-Economic section

methodology is set out in Section 2 of the Forecasting Report (FR)⁶⁰ and involves a hybrid approach combining long-term 'top down' econometric forecasts with 'bottom up' airline specific forecasts for the short-term.

109. The top-down modelling comprises two steps; the first is to determine the level of underlying passenger demand using the future growth rates model. This model is based around the underlying analysis that underpins the DfT's UK wide passenger demand forecasting model. It determines future growth rates by forecasting future trends of economic growth and the cost of travel - the two main drivers of demand. The cost of travel is informed by factors such as fuel prices, fuel consumption, Air Passenger Duty, carbon costs and average aircraft size.
110. The way in which changes in economic growth and air fares translate through into growth in air transport markets is based on demand elasticities. In this case, BAL used the elasticities identified within the DfT's 2017 UK Aviation Forecasts presented in Tables 1-3 of MBU.⁶¹ The same elasticities have been used more recently in the Government's Decarbonising Transport and the Jet Zero consultation. While it is accepted that these documents contain various statements about future uncertainties, there is nothing to suggest the Government intends to move away from its forecasting model and demand elasticities.
111. To enable the future growth rates model to consider uncertainty arising from such things as economic growth, fuel prices or carbon costs, the model includes a Monte Carlo analysis.⁶² The forecasting methodology was accepted by NSC officers' and their specialist advisors at the application stage.
112. The second part of the forecasting process uses an econometric passenger allocation (Logit) model to determine how the underlying passenger demand would be apportioned to BA and the other competing airports. The Logit model considers macroeconomic effects, passenger choice, displacement, and long-term trends. It has been calibrated using data from Civil Aviation Authority (CAA) Passenger Surveys.
113. Forecasting is relevant to this appeal because it helps to:
- Establish whether there is likely to be sufficient demand for BA to reach 12 mppa; and
 - Establish when BA is likely to reach 12 mppa; and
 - Establish the operational characteristics of BA at 12 mppa including the fleet mix, catchment area and diurnal profiles, busy day timetables and passenger displacement. These are inputs into the various assessments contained in the ES.
114. Three scenarios were considered in the FR; A Core Case where BA reaches 12 mppa in 2030, a Slower Growth Case where 12 mppa is achieved in 2034 and a Faster Growth Case with 12 mppa reached in 2027. Section 4 of the FR explains how the environmental inputs into the ES have been calculated.

⁶⁰ CD: 2.21

⁶¹ They are also shown in the diagrams in Figure 5 of Mr Brass' PoE

⁶² A more detailed explanation of the Monte Carlo' analysis is contained in section 3.2 of Mr Brass' PoE

115. Through sensitivity testing, the FR establishes that the model outputs (inputs in the ES) are relatively insensitive to the point in time at which 12 mppa is reached. For example, if growth is slower as some have suggested, then there would be no significant change to the magnitude of the effects reported in the ES. In that scenario, the environmental effects would simply occur at a later date.
116. Many of those opposing the scheme have pointed to uncertainties created by events such as Brexit and the Covid-19 pandemic. Amongst other documents, NSC pointed to Decarbonising Transport which highlights that these short-term changes could influence travel demand in the longer term. Clearly, there have been a number of recent events that will continue to exert an influence on travel demand and hence passenger numbers in the short term. Nonetheless, it is unlikely they will have any significant effect on the 2030 Core Case.
117. On the long term effects, there is widespread agreement between the main parties. For example, there is no dispute in relation to the central tenet of BAL's forecasting case which is that there is sufficient demand to enable BA to reach 12 mppa with 2030⁶³ representing the most likely year when that figure will be achieved. Moreover, fleet mix and business travel aside⁶⁴, the general characteristics of BA at 12 mppa are also agreed.

Fleet Mix

118. In November 2020, after NSC refused planning permission, Jet2 announced that it would commence operations from BA. This development and its potential implications for the fleet mix⁶⁵ formed an important part of NSC's criticism of BAL's FR. These criticisms prompted BAL to produce an alternative airline-specific fleet mix⁶⁶ which was subject to several amendments during the Inquiry.⁶⁷ The result of these revisions was that the only outstanding area of dispute between the main parties concerned the proportion of ATMs by Boeing 737-800 (current generation) aircraft⁶⁸ in the 2030 fleet mix. Under NSC's alternative fleet mix there would be approximately eleven additional ATMs a day from current generation aircraft.
119. The exact makeup of the fleet mix in 2030 cannot be known. As NSC's witness stated that 'there is no single correct fleet mix'. Accordingly, it is not for the Panel to adjudicate on which fleet mix is most likely to occur. Rather it is our role to determine whether BAL's approach to fleet mix is reasonable and appropriate bearing in mind the criticisms that have been made. NSC's approach has been to determine an airline specific fleet and as a result, its fleet mix contains a relatively a high proportion of current generation aircraft. On the other hand, BAL's fleet mix provides more of a balance of current and new generation aircraft across all of the airlines.
120. Attempts to determine an airline-specific fleet mix in nine years' time based primarily on an announcement by a single airline is potentially unrealistic. Several of the assumptions made, for example in relation to the likelihood of Ryanair operating next generation aircraft from BA in 2030,⁶⁹ are little more

⁶³ Pushed back from 2026 as reported in the original ES due to the effects of the Covid-19 Pandemic

⁶⁴ Business travel is dealt with under the Socio-economic section of this decision.

⁶⁵ See Table 3 of Mr Brass' PoE

⁶⁶ Mr Folley PoE - page 19, paragraph 7.8.

⁶⁷ INQ/010 and INQ/018

⁶⁸ 14,582 (NSC) versus 9,710 (BAL)

⁶⁹ INQ/018 para 20

than conjecture. Furthermore, it is clear from BAL's evidence⁷⁰ that some of NSC's assumptions surrounding Tui overlooked a number of recent press releases. This simply underlines the difficulties associated with an airline specific fleet mix.

121. The plans of Jet2, Ryanair, Tui and other airlines operating at BA are capable of changing significantly over the coming years as they seek to recover from the Covid-19 Pandemic. Given the dynamic nature of the low-cost aviation sector, the Panel can find nothing inherently unreasonable about BAL's generic approach.
122. Even if NSC's approach were preferred, there is little to suggest the additional eleven movements a day by current generation aircraft would have a material effect on the significance of effects assessed in the ES. All of BAL's witnesses gave evidence that the conclusions in the ES in these areas would not be materially altered by the adoption of NSC's fleet mix.

Business Travel Growth

123. NSC and others suggest that BAL has significantly over-estimated the benefits which are likely to arise in relation to business travel. These concerns are based on the argument that the DfT's business demand elasticities used in BAL's Forecasts are based on the pre-pandemic world and are inappropriate to calculate growth in a post-covid world where amongst other things, attitude and technological changes mean that business travel will be strictly limited.
124. The elasticities used by BAL, including those for business passengers, reflect the general relationship between economic growth, price, and the propensity to fly. They take account of factors that may impact demand, such as individual and corporate attitudinal changes and the rise of video conferencing technologies.
125. Therefore, while the Panel accepts the arguments put forward by XR Elders and others that new technologies will inevitably have a suppressing effect on business travel, these considerations have already been built into the DfT's business demand elasticities. In any event, even if it was accepted that the recovery of business travel would be slower than that assumed in the Core Case, this would simply move the expansion of BA towards the Slower Growth scenario which has already been tested as part of the ES.
126. The DfT itself doubtless with full knowledge of the rise of video conferencing and attitudinal changes to flying, published the Decarbonising Transport strategy in July 2021. This uses modelling underpinned by the same demand elasticities in the 2017 Aviation Forecasts.
127. The Monte Carlo analysis is a component of the process of forecasting future growth rates for air passenger demand. It is a well-documented mathematical technique whose primary purpose is to deal with the issues around uncertainty by defining a 'most likely' path based on a thousand iterations of various scenarios. Accordingly, suppressing factors such as Brexit, Covid-19, increasing carbon costs and new technology are all reflected in the growth scenarios considered in the analysis.

⁷⁰ INQ/028 Figures 1 and 2

128. There was much discussion at the Inquiry regarding the relative growth of business and leisure passengers at BA since 2000. The CAA data⁷¹ can be interpreted in a range of ways depending on the chosen time period. For example, by looking at the period 2000-2019, NSC argued that past trends are not supportive of the 2-3% growth rates assumed in BAL's forecasts.
129. While there is little doubt that leisure travel has grown more strongly over this period, BAL argues that such an approach is too simplistic as it includes the 'low-cost bubble' period between 2000-2008. If one were to exclude this period and to focus on the period between 2008-2019 then the rate of growth in business travel⁷² at BA is consistent with BAL's growth rates. There are merits in both arguments.
130. In any case the dispute about past growth rates is not a determinative issue when looking at future growth rates. The Panel is satisfied that the modelling work undertaken by BAL has appropriately considered a range of scenarios and factors. While NSC disagrees with the outputs from the Monte Carlo analysis within the econometric model, there is nothing in the historical CAA data to suggest the forecasts are incorrect.
131. For reasons similar to those set out above in relation to fleet mix, the Panel are not persuaded by NSC's criticisms regarding route development. Rather than trying to determine now what routes might be available from BA in 2030, the approach inherent in BAL's forecasting has been to look at the general nature of demand. That approach seems to be appropriate.
132. For the above reasons and also bearing in mind that no alternative demand elasticities or growth rates have been put before the Panel, we consider the assumptions about business travel recovery to be acceptable.

Logit Model

133. NSC stated that it had been unable to properly assess the Logit model because it had not been given the 'lambda value'. Conflicting accounts have been provided by the main parties on this issue.⁷³ However, what is apparent is that the absence or otherwise of the lambda value only became a significant issue at the Inquiry. Up to that point, as evidenced by NSC's own displacement report, no specific concerns had been raised.
134. The first detailed request for information from NSC regarding the Logit model appears to have been sent only to BAL after the Inquiry had opened. While BAL responded to nearly all of NSC's queries about the model's workings, the lambda value was not provided because it was stated to be part of York Aviation's intellectual property. According to BAL, Jacobs were made aware of this at the 16 March 2021 meeting and there was apparently no challenge to it at that time.
135. There are two important points to make. Firstly, the level of disclosure being sought by NSC at the Inquiry in relation to the Logit model apparently goes far beyond what has been required at other airport planning inquiries. According to BAL's witness, it also goes substantially beyond that which is

⁷¹ INQ/013

⁷² 2.6% 2008-2019 and 4.9% 2012-2019

⁷³ INQ/058 and INQ/083

provided by the DfT in relation to its passenger demand allocation model. It appears it is very unusual for this type of information to be provided.

136. The second point is that it is clear from the correspondence between BAL and NSC's advisors that a significant amount of information was provided in relation to the Logit model, including the input assumptions and detailed outputs, to show how it allocated passengers to other airports. It is also evident that this information was scrutinised during the application period and beyond. In our view, a sufficient level of information has been provided to enable NSC to form a judgement as to whether the model was fit for purpose.
137. If NSC believed that the model outputs were wrong or that the absence of the lambda value was so important that it could not form a view without it, then it was open to them to revisit their 2020 assessment in the run up to the Inquiry. As it was, no further assessment was carried out and as such, the only assessments on displacement before the Panel are those from Jacobs⁷⁴ for NSC and that contained in the Economic Impact Report (EIR) Addendum.⁷⁵

Conclusions on Forecasting

138. Government policy is focussed on securing a strong economic recovery, promoting a Global Britain, and levelling up the cities and regions through amongst other things, improving global competitiveness.⁷⁶ The support for sustainable aviation growth reflected in national aviation policy is founded on the DfT's long-term assessments of future demand growth.
139. There was widespread agreement between the main parties on the core components of forecasting, namely that there is sufficient need to enable BA to reach 12 mppa with 2030 being the most likely year that figure will be met. Sensitivity testing has shown that the inputs into the ES are generally insensitive to the exact date when 12 mppa is reached. BAL's approach to modelling uncertainties which are an unavoidable part of any long-term forecasting exercise, follows established methods and is acceptable.
140. The scope of disagreement between the expert witnesses is relatively narrow. The Panel have found that BAL's approach to fleet mix is reasonable. In any event, the disagreement between the parties has very limited implications for the assessments in the ES.
141. On business travel growth, the Panel is satisfied that forecasts produced by BAL are fit for purpose. The BAL Forecasts are the only detailed ones before the Panel. The fundamentals drivers of long-term growth are likely to remain strong. Accordingly, the Panel do not consider it unreasonable to conclude that the long-term demand for business travel is likely to return to generally pre-pandemic levels.
142. The Panel is therefore satisfied firstly, that there is a clear and compelling need for the development as evidenced by the UK Aviation Forecasts and reflected in policy support for expansion in MBU. Secondly, that BAL's Forecasting work is sufficiently robust and provides a detailed picture of what BA would look like at 12 mppa.

⁷⁴ INQ/090

⁷⁵ CD: 2.22 Paras 3.26-3.34

⁷⁶ CD: 11.10

Climate Change

The importance of climate change and the broad approach of the parties

143. There is no dispute between the parties about the importance of climate change – at the local, national and international levels. The recent Intergovernmental Panel on Climate Change 2021⁷⁷ was widely reported as being a ‘Code Red for Humanity’, and this report and many other documents stress the need for substantial reductions in CO₂ emissions.
144. It is noteworthy that the Inquiry received a very large number of representations, in writing and verbally, opposing the proposal on this basis. These representations came from not only those living near to the airport, but from the wider area, elsewhere in the UK and abroad.⁷⁸ Several of those making representations had impressive academic qualifications and experience in the field, and a number of those writing and speaking made reference to the declarations of a Climate Emergency in their own local areas.
145. The importance of the situation is recognised by the UK Government, most recently at the COP26 conference, and is reflected in a wide range of documents. The need to decarbonise so as to address climate change is common ground between the parties to this appeal.
146. All parties agree that there would be an increase in GHG, especially CO₂, if the appeal scheme goes ahead when compared with the position if it did not. Under these circumstances the climate change position would be worsened.
147. One initial point to be clarified relates to BAAN’s position in relation to that of BAL. BAAN stated that had BAL argued “...*that the impact of carbon emissions from the appeal proposal are not material, because of the legal obligation on the SoS to achieve Net Zero by 2050 and the availability of future policy mechanisms.*”⁷⁹ Leaving aside any conclusion on the impact of increased emissions and the mechanisms available for dealing with them, this is incorrect. It is clear that the contribution of the appeal scheme to climate change related to CO₂ emissions is an important material consideration.
148. BAL, most notably in the ES and the ESA and in evidence to the Inquiry, has provided a considerable amount of material related to the climate change impact of the proposal. That BAL takes a different approach to tackling these emissions does not mean that they are not material to this appeal and BAL has not ruled out carbon emissions as a material consideration.
149. Aside from the BAAN interpretation of BAL’s position, none of the above matters are contentious. And there is no substantial dissent from the formulation of the key question as to whether the emissions from the proposal are so significant that they would materially affect the ability of the UK to meet its carbon budgets and the target of Net Zero GHG emissions by 2050. (The mathematics of the increase in emissions is almost entirely agreed.)
150. It is also common ground that an international response is necessary, with individual nations determining their own contributions. In this country the

⁷⁷ INQ/032 Page 18

⁷⁸ This also included objections from some of the Ontario Teachers who would benefit from the pension plan investments from the expansion proposals, but who were also experiencing direct effects from climate change due to wildfires at the time the Inquiry was sitting.

⁷⁹ INQ/108 Para 25

response is most apparent in the 'Net Zero' approach⁸⁰ - which is a legally binding commitment to reduce the net UK carbon account by 100% against the 1990 baseline by 2050. To get to this target it is apparent that all parts of the economy, including aviation, must take responsibility.

151. With this background, the main difference between BAL and NSC and other parties relates to the way in which the issue of the emissions from this proposal should be addressed. On the one hand BAL relies on national action to address aviation carbon limits, in the context of the national approach which is not to restrict peoples' ability to travel,⁸¹ whereas the other parties look to airport capacity limits, including the restriction of individual airport expansion such as that envisaged in this appeal.

Development Plan and the NPPF

152. Policy CS1 is the key development plan policy related to this issue and emphasises the reduction of carbon emissions and the need to tackle climate change. BAL's position is that this is of primary relevance to ground based carbon emissions. However, this is largely based on their position that climate change is a matter to be dealt with at the national level. Neither the policy nor the justification makes that distinction but, as will be discussed below, there is every reason to conclude that the policy does not directly address aviation emissions. CS policy CS23 does not provide unqualified support for growth at BA, but it takes one little further than policy CS1.
153. The NPPF sets, as one of its overarching objectives, an environmental objective of mitigating and adapting to climate change, including moving to a low carbon future. The NPPF also provides that the planning system should support the transition to a low carbon future in a changing climate.⁸²
154. These policies are essentially uncontentious in the context of this appeal. However, as referenced above, the NPPF also states that the focus of decisions should be on land use matters. It should be assumed that other control regimes will operate effectively.⁸³
155. This is the point referenced by BAL in their submission that, although not stated specifically in the NPPF, it is clear that carbon emissions are addressed under other regimes. These include the CCA, carbon budgets and the UK Emissions Trading Scheme (UK ETS) and Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). These are discussed below.

The Climate Change Act 2008 and Carbon Budgets

156. The Paris Agreement is the basis of much subsequent legislation and guidance. It was translated in the UK by way of the CCA. The current target is that the net UK carbon account for 2050 should be at least 100% below the 1990 baseline. That is the UK's Net Zero Target but for the avoidance of doubt this is a balanced figure and does not mean absolute zero emissions.
157. One matter arising from the CCA was the establishment of the Committee on Climate Change (CCC), which advises the Government on a range of climate change matters. These include international aviation, the carbon target and

⁸⁰ CD: 9.007

⁸¹ CD: 9.134 p4

⁸² CD: 5.08.1 para152

⁸³ CD: 5.08.1 para 188

carbon budgets (below). The CCC is not a policy making body, although its advice to Government – which may or may not be accepted – needs to be seriously considered.

158. Another element in the CCA is that it requires five yearly carbon budgets to be set 12 years in advance so as to meet the 2050 target. Six carbon budgets have been adopted. The 4th and 5th (2023-2027 and 2028-2032 respectively) have yet to come into effect, and only the 6th (adopted in 2021), covering the period 2033 to 2037, specifically includes emissions from international aviation. But these types of emissions were previously taken into account in earlier budgets in an alternative manner by allowing for headroom – this is the ‘planning assumption’. This change to specific reference to aviation in the 6th carbon budget was recommended by the CCC.⁸⁴
159. In the same CCC report five scenarios were explored – one of which (the ‘Balanced Pathway’) recommended no net expansion of airport capacity. However, this recommendation was not accepted.⁸⁵ The Balanced Pathway is therefore not Government policy and is only one approach to achieve the outcome of Net Zero.
160. In order to achieve the target of the 6th carbon budget, and of previous budgets, any increased emissions in one sector arising from the individual proposals will necessitate reductions elsewhere. In this light there is some difference between BAL and other parties as to the current position in relation to future carbon budgets.
161. The evidence suggests that the Government is not on track to meet the 4th and 5th carbon budgets – with significant reductions needed in relatively short periods. This largely uncontested position is shown in the CCC report.⁸⁶ However, we are not yet in the period of either budget and the suggestion that the Government is off track at this time means little in relation to budget periods which have not yet started. However, no party has suggested that complacency is indicated or that the 4th and 5th budgets can be ignored.
162. There are three important points to make in relation to the carbon budgets and the way in which they operate. Firstly, although the approach to Net Zero and the carbon budgets is a material consideration, the CCA places an obligation on the SoS, not local decision makers, to prepare policies and proposals with a view to meeting the carbon budgets.⁸⁷ Secondly, as advised in the NPPF, there is an assumption that controls which are in place will work. Finally, and consequent on the previous points, NSC’s position that grant of permission in this case would breach the CCA and be unlawful is not accepted. That does not mean that these matters are not material considerations, but the CCA duty rests elsewhere.

Offsetting Schemes

163. There are two trading schemes currently in operation related to aviation emissions –UK ETS and CORSIA.

⁸⁴ CD: 9.066

⁸⁵ CD: 9.037 Page 4

⁸⁶ CD: 9.017 Figure 1.1

⁸⁷ CD: 9.002 Section 13

164. The UK had been in the EU Emissions Trading Scheme (EU ETS) since 2005. This scheme included aviation since 2012. With the UK leaving the EU, this has been replaced by the UK ETS (2021) which runs to 2030. It is not a scheme which deals with aviation alone, but includes energy and a range of other sectors.
165. The UK ETS as currently enacted will not run into the period of the 6th carbon budget in 2033. In addition, it does not affect all flights to and from BA, as it only deals with the EEA and Gibraltar.⁸⁸
166. At the international level, CORSIA was adopted by the International Civil Aviation Organisation (ICAO) in 2016. It has three phases, the third of which runs to 2035. There has been consultation on the link between UK ETS and CORSIA, and a further statutory instrument is anticipated in 2022.
167. It has been suggested that the levels of ambition in these offsetting schemes are inadequate to meet the Net Zero/carbon budget targets. In this respect reference has been made to the CCC's 6th carbon budget report.⁸⁹ However, as before, the progress toward these targets is as yet uncertain and there remains a legal responsibility on the SoS to comply with the legal obligations.
168. As mentioned above, both offsetting schemes are time limited, and will currently stop well short of 2050. Some objectors have stated that it is not for the Inquiry to speculate on the future of UK ETS or CORSIA and that therefore little or no weight should be given to those schemes. In contrast, BAL has stated that further orders will be made in due course so as to reflect the duties in the CCA and that it wrong to suggest that there is a policy gap after 2030/2035.
169. Neither position is entirely correct. As a matter of fact, there is currently an offsetting gap beginning in the next decade, and this cannot be ignored. But equally, given the international and national context it is not unreasonable to assume that something will come forward to fill the space. Whether that is a refreshment of UK ETS/CORSIA or other measures remains to be seen.
170. But the judgement in this case must be taken in the light of the (agreed) scale of emissions, the fact that aviation emissions are within the traded sector, and that in any event UK ETS/CORSIA are only two of the measures available to address aviation carbon emissions in the light of the legal duty to ensure that carbon budgets are not breached.

The APF and MBU

171. Turning away from the CCA and carbon budgets to airport policy, the APF, though some eight years old, remains part of Government policy related to aviation. It also recognises UK ETS (EU ETS at the time) as being a key component of the overall strategy.
172. The APF deals with the Government's primary objective related to long-term economic growth, within which the aviation sector is seen as a major contributor. However, as summarised above, while acknowledging the benefits of aviation, it recognises the global environmental impacts. MBU was published

⁸⁸ CD: 9.036 Page 37

⁸⁹ CD: 9.034

in 2018 and provides general support for airports but also with important environmental caveats.

173. As discussed above, both APF and MBU are the most recent policy statements at the national level and are material considerations. However, their support of airport development is not unconditional.

Decarbonising Transport and Jet Zero

174. 'Decarbonising Transport: A Better, Greener Britain' and the 'Jet Zero Consultation' both contain similar main messages and both emphasise the need for very significant action to be taken.
175. They set out the Government's pathway and suggest high-level scenarios to meet the UK's legal emissions targets. The approach focusses on policies to support sectors to decarbonise, rather than applying emissions caps and carbon pricing as the only mechanisms. There is no suggestion of capacity limits at airports as part of the way forward. The precise route to Net Zero by 2050 is not set out anywhere and there remain different approaches, while the overall commitment remains.
176. Subsequently Net Zero Strategy: Build Back Greener (2021) was published, setting out policies and proposals for decarbonising all sectors of the UK economy in the light of the requirement to achieve Net Zero by 2050. In relation to aviation, the strategy follows the approach of the Jet Zero consultation.
177. Overall, these documents, to the extent to which they carry weight, do not take consideration of the climate change issue much further, other than to repeat the position that capacity limits are not seen as the way forward.

COP26

178. In autumn 2021 COP26 was held in Glasgow, which further heightened the importance of climate change issues in this appeal.
179. In November 2021 the 'Glasgow Climate Pact' was adopted and signed by over 200 countries, including the UK, and the comments of the parties on this document have been considered. This is a global agreement seeking to accelerate action on climate change and finalise remaining elements of the Paris Agreement. The language of the Pact, and its content, continue to emphasise the importance of the issue and the need for further action.
180. In relation to the issues raised by this appeal the Pact includes:
- A commitment to phase down fossil fuel use (although no date was given);
 - A renewed commitment to Net Zero by 2050 (although China and India have set targets for 2060 and 2070 respectively);
 - The signing off of some detailed rules of the Paris Agreement, including matters relating to a global carbon market. One of these provides the framework for international cooperation towards emissions reduction targets and the operation of carbon markets.

- The Pact acknowledges that the ICAO is the appropriate forum in which to address emissions from international aviation. Offsets generated under CORSIA would need to comply with the Paris Rule Book, meaning that concerns raised relating to the measurement and verification of offsets would be resolved in accordance with those rules.
- The need for individual countries to revisit and strengthen their 2030 targets in their nationally determined contributions.

181. However, as referenced in the subsequent CCC report,⁹⁰ international aviation was not on the agenda and none of the COP26 outcomes introduce any new mechanism to control or reduce aviation emissions.

182. Overall, a number of matters were resolved at COP26, but there remains continuing uncertainty as to future carbon reduction targets. However, given that aviation emissions were not themselves dealt with by the conference, the key outcome remains a very strong emphasis on tackling the issues raised by climate change.

The CO₂ Effect of the Proposal

183. There is no disagreement between BAL and NSC related to the methodology and calculation of the CO₂ effects of the proposal. This was not a matter raised in any detail by other parties. For that reason, the numerical position is not a matter which needs to be considered in any depth.

184. The position related to carbon and other GHG emissions was considered in detail in the ES,⁹¹ which also set out the methodology employed. It was supplemented by the ESA,⁹² which was updated in the light of revised air traffic forecasts.⁹³ The ES and the ESA included the evaluation of the significance of carbon emissions from all sources.⁹⁴ This was followed through into BAL's Statement of Case and evidence.

185. There remain some very limited areas of disagreement – in particular the assessment (or not) of non-CO₂ effects, which is covered separately below.

186. Five sources of emissions were considered (aviation, surface access, airport buildings, airport operations, and construction). The carbon emissions were set out and three scenarios were compared with the 'planning assumption.' A separate exercise allowed for the off-setting requirements of BA and the results and their significance were assessed separately.

187. In summary, BAL's evidence is that the addition of 2 mppa would represent around 0.22-0.28% of the 37.5 MtCO₂/annum of the planning assumption related to the 4th and 5th carbon budgets (below), and between 0.29-0.34% of the CCC's 'balanced pathway' assumption. There is no reason to doubt the accuracy of these figures which are considered robust.

188. BAL's position is that the increase would not amount to a significant effect as described in the ES/ESA. In contrast, the approach of opponents is that the increased emissions would consume the local carbon budget of NSC between

⁹⁰ INQ/135

⁹¹ CD: 2.05.45

⁹² CD: 2.20.1

⁹³ CD: 2.05.44 and CD 2.20.1 Page 143

⁹⁴ CD: 2.50.05 and CD: 2.05.45 Appendix 17A

2028 and 2032. However limited detail of this approach was provided, and it was not suggested that local carbon budgets have any basis in law or policy. In addition, it is argued that any increase in emissions would limit the Government's room for manoeuvre in relation to the Net Zero target.

189. Overall, it remains the case that the extent to which this decision, related to a local scheme, would increase the amount of GHG emissions is a material consideration. The issue is how such increases, of whatever magnitude, should be addressed.

Cumulative Impact of Airport Expansion

190. There are a number of pending airport expansion schemes and others where permission has been granted but the development has not yet been implemented. The position of NSC and some other objectors is that the impact of all airport development should be assessed before permission is granted in this case.

191. In part this argument is based on the CCC Progress Report to Parliament in June 2021 which advised that there should be no net expansion of UK airport capacity unless the sector was on track to outperform its net emissions trajectory, and that the Government needed to assess its airport capacity strategy.⁹⁵ In this context it is noted that no evidence has been provided of any airport intending to reduce capacity – in fact the reverse is the case.

192. The purpose of such an approach would be to assist with the consideration of whether a proposal would have a material impact on Government's ability to meet carbon reduction targets in relation to a cumulative position.

193. BAL emphasised the limited contribution of the proposal to the overall increase envisaged in various pathways. While this argument could be repeated too often to the potential detriment of the overall position, there is no policy support for rejecting this appeal on the basis of a lack of cumulative assessment.

194. No such national assessment is before the Inquiry. The ES/ESA dealt with the cumulative effects of the proposal in a local sense, but only the Government could fully consider the cumulative impact of individual proposals across the country. To expect an individual appellant to do so would be unreasonable. If that position were adopted, it would be tantamount to a moratorium on airport expansion, which is clearly not supported by policy.

195. In the absence of any national assessment, the implication of the objectors' approach would be that this appeal should be dismissed. However, having considered the evidence on the cumulative effects, even in the absence of such a national assessment, the objectors' approach is not supported by policy. There is no requirement to conduct a cumulative assessment of GHG emissions on the global climate and, in any event, it would not be feasible to do so.

196. Related to the assessment of cumulative effects, the Panel were advised that campaigners against the expansion of Southampton Airport have been given permission (December 2021) in the High Court to proceed with a judicial review against the recent to allow the airport to expand. BAAN has argued that it is a material consideration in this case and that circumstances of the cases

⁹⁵ CD: 9.130 Page 184

are very similar. However it should be noted that the grant of permission to proceed in the Southampton case indicates that there is an arguable case, and nothing more.

197. One of the grounds of challenge that the Judge has found to be arguable at Southampton ('Ground 3'), was that the environmental statement in support of that airport's application had unlawfully made no assessment of the cumulative effect of GHG.

198. However, based on the papers submitted by BAAN, the position in the case of the current appeal is very different. The background is that the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (Reg 26) deal with the duty to take into account the Environmental Statement, and also "*any other information.*" The question of cumulative emissions was dealt with in a number of documents before the Panel, most notably:

- The BAL letter dated 5 May 2021 to all parties, which included (Appendix 1) the forecast carbon emissions from a number of known airport developments. This included consideration of the 'planning assumption', the UK's carbon budgets, UK ETS and CORSIA.
- BALs climate change witness reproduced the data on these emissions and set them in the context of the 'planning assumption' and the 6th Carbon Budget.⁹⁶

199. The Inquiry also had before it a range of documents addressing the UK's current and projected performance against its carbon budgets. In particular:

- BEIS Energy and Emissions Update 2019;⁹⁷
-
- The CC's Progress Report to Parliament 2021;⁹⁸
- The Council's rebuttal evidence which that set out the current net carbon account performance against future carbon budgets;⁹⁹ and
- BAL's closing submissions also dealt with the issue of cumulative climate change effects.¹⁰⁰

200. The Panel (and indeed other parties including BAAN) were thus made fully aware of the emissions from other known airport expansion projects, which was submitted as 'other environmental information' pursuant to the EIA Regulations, and the matter of cumulative effects was considered at the Inquiry itself in some detail, as far as was reasonable given the national context.

Sustainable Aviation Fuels and Efficiency Gains

201. In the potential pathways to Net Zero there are varying degrees of reliance on efficiency savings and the impact of new technology. This is one approach which may play a role in the Government working towards the target. The ES

⁹⁶ Mr Osund-Ireland PoE page 47, Tables 3.4 and 4.3 and section 3.4

⁹⁷ CD: 9.78

⁹⁸ CD: 9.130

⁹⁹ Mr Hinnells Rebuttal PoE Page 11 Figure 2

¹⁰⁰ INQ/107 Paragraph 580

makes a number of assumptions about the future of the aviation sector and how these relate to the assessment. One of these assumptions is that achieving Net Zero requires increased use of sustainable fuels.¹⁰¹

202. However, the Inquiry heard evidence which suggested that it is unsafe to rely on biofuels and synfuel as mitigation in the short or medium term. This is partly because of the very early stage in the development of synthetic fuel technology, and partly due to the argument that biofuels could themselves have a negative effect on the climate because of changes in land use, and partly as hydrogen flight is unproven. Such changes will undoubtedly take time to evolve to such a position that they would have any significant impact on mass aircraft movements.
203. The detail of this evidence was not substantially questioned by BAL, whose witness was not fully aware of the detailed issues. However, it is not for this Inquiry to make a finding on likely success or failure of advances in such technology. What is clear is that advances in technology, to whatever extent they materialise and at whatever time, are one part of the Government's approach to achieving Net Zero and should not be discounted, albeit it is recognised that there is uncertainty as to when this technology might be adopted commercially by airlines. These are matters that will be determined at the national level.

Failure to Assess non-CO₂ Emissions

204. Along with CO₂ emissions, non-CO₂ effects have the potential to bring about climate change. These effects, such as contrails and cirrus clouds, appear (as far as is known) to be short term in duration. However, there is considerable uncertainty as to their effect and longevity.
205. As recognised by the CCC there is considerable uncertainty in assessing these emissions, and the ESA recognised this point and did not seek to quantify their effect. It has been suggested that a multiplier might take account of non-CO₂ effects but this has yet to emerge and there is no policy as to how they should be dealt with.
206. The criticism of BAL's position is the allegation that non-CO₂ effects have been ignored and that it is unreasonable to ignore the effects due to measurement issues.
207. However, the draft Carbon and Climate Change Action Plan (CCCAP) (below) provides that such emissions should not be ignored in future selection of GHG reduction measures. Given the extent of scientific uncertainty, and given the intention of the CCCAP to consider the effects further, it would be unreasonable to weigh this matter in the balance against the proposal.

Carbon and Climate Change Action Plan (CCCAP)

208. The draft CCCAP¹⁰² envisages BA's operations and activities becoming carbon net zero by 2030 and becoming net zero as a whole, including aviation by 2050.
209. The draft was published in May 2021 and sets out a range of targets related to emissions from all sources. The progress of the CCCAP would include a

¹⁰¹ CD: 2.20.1 Para 10.2.16

¹⁰² CD: 9.048

package of deliverable measures at agreed intervals. The submission of a CCCAP to NSC would be the subject of a condition. This condition would also require that the CCCAP was independently audited and reviewed, and that it should reflect any changes arising from any updated emissions targets and national policy changes. NSC and other parties are concerned, understandably, about the nature and level of enforceable commitments related to CO₂ emissions reduction in the final document.

210. The CCCAP indicated the direction of travel of BA in this respect. It is necessary that the production of a final version would be the subject of a condition but, at the moment as a draft, it has very limited weight.

Conclusion on Climate Change

211. There is no doubt that climate change is a very serious issue facing this country and the world. This is recognised in local, national and international documents. Nor is there any doubt that the current proposal would increase CO₂ emissions from aircraft (ground emissions being less significant and being capable of being addressed elsewhere).

212. There is in principle support at the national level for the increased use of runways and other existing facilities, subject addressing environmental issues. The development plan reflects the need to reduce carbon emissions and tackle climate change – but the key point of difference is how this is to be achieved.

213. It is self-evident that any increase in CO₂ emissions in one location will have consequences elsewhere and that this could make the duty of the SoS under the CCA more difficult. But in this case the comparative magnitude of the increase is limited and it has to be assumed that the SoS will comply with the legal duty under the CCA.

214. There are a number of current options and potential future approaches to assist in the achievement of this target. The main current options have been discussed above. It is true that there are problems and uncertainties associated with some approaches but, overall, there are a number of alternatives which may be used at the national level to address climate change. Additionally, the response to the climate change problem needs to be considered across a wide range of activities.

215. On the other hand, there is no policy which seeks to limit airport expansion or impose capacity limits – which would be the effect of dismissing the appeal in this case. This is not supported by national policy.

216. Given current national policy, the approach of APF and MBU, the measures already in place, along with the potential for further measures in the future, the conclusion must be that the aviation emissions are not so significant that they would have a material impact on the Government's ability to meet its climate change target and budgets. Ground based emissions can be addressed by the CCCAP and other measures, and the two development plan policies summarised above are not considered to directly address aviation emissions. Overall, this matter must be regarded as neutral in the planning balance.

Noise

217. Airport operations produce noise. Aircraft noise varies between types of aircraft and can vary between the same type due to other factors such as

power, weight, flight path and atmospheric conditions. Disturbance from aviation noise can have negative effects on the health and quality of life of people living near airports and under flightpaths.

218. Two of the RfRs relate to noise effects; reason one in broad terms identified that noise effects would generate additional noise and would result in adverse environmental impacts upon local communities. The second reason was more specific and alleged that the effects of increase in aircraft movements and the lifting of seasonal restrictions on night flights would have a significant adverse impact on the health and well-being of local residents.
219. A number of the conditions imposed on the 10 mppa permission seek to address noise impacts at BA. These relate to a noise contour cap, a noise quota count (QC) system at night, a seasonal and overall cap on night-time flights and a restriction on shoulder period flights. The use of auxiliary power units (APUs) at stands 38 and 39 are prohibited. There is also an Environmental Improvement Fund in the 10mppa S106 to provide mitigation measures to local residents who fall within the noise contour.
220. The ES¹⁰³ assessed noise effects of the proposed increase to 12 mppa and concluded that impacts would not be significant and that there would be no serious adverse effects on health and well-being. The ESA considered updated forecasts, and this did not alter the conclusions of the ES.
221. Impacts from road traffic noise and construction and vibration noise were not disputed by NSC or other main parties. In contention is air noise from take-off/landing, taxiing and ground noise from airport operations. The debate centres on the noise and disturbance, and associated health effects which would be experienced by local communities from the proposed development and whether any such effects can be appropriately mitigated.
222. Noise is a complex, technical subject. Before addressing such effects, there are a number of methodological matters underpinning the assessments in the ES and ESA which were heavily debated at the Inquiry and require consideration.

Fleet Mix

223. The update to fleet mix would result in the use of quieter aircraft and a reduction in noise effects over time. These were factored into the original ES and updated in the ESA.
224. As set out earlier in this decision, the Panel recognises the difficulties in accurately predicting a fleet mix in 2030. However it has concluded that the mix put forward by BAL is generally sound, and any differences would be unlikely to have a significant effect on the assessments.
225. In any case, NSC have produced their own fleet mix predictions¹⁰⁴ and BAL have sought to compare this against the ESA results specifically for noise impacts.¹⁰⁵ These findings are drawn upon as relevant, below.

¹⁰³ CD: 2.05.16

¹⁰⁴ INQ/018

¹⁰⁵ INQ/030

Noise Indices

226. Current convention in the UK is to assess the effects of aircraft noise using an averaged $L_{Aeq,T}$ metric. This includes daytime $L_{Aeq,16h}$ noise contours derived from an average summer day of aircraft movement.¹⁰⁶ For night-time noise, a $L_{Aeq,8h}$ index is used for the period between 23:00-07:00, again using an average summer night. There are other types of averaged indices which are also used and assessed in the ES and ESA; for example, L_{night} is similar to $L_{Aeq,8h}$ but it is based on average annual night movements and is not restricted to summer months. The ES and ESA treats these metrics as being broadly equivalent, with the $L_{Aeq,8h}$ being a slightly more conservative threshold as it reflects a busier period. Combined effects over a 24-hour period were not assessed in the ES/ESA.
227. As an alternative to averaging noise events, there are a range of single event metrics. These include a Single Event Level (SEL) which is a measure of the noise energy produced during a specific event. It accounts for the level and duration of the noise. L_{Amax} reflects what a person hears as the maximum noise level. It is expressed in either fast or slow time weighting, expressed as L_{ASmax} or L_{AFmax} . The ES assessed this against L_{ASmax} as the industry standard.
228. The N index relates to a number of air traffic movements exceeding a set number of decibels L_{Amax} during a set period. For example, N60 reflects the number of events which exceed 60 Decibels (dB) and N70 for noise events exceeding 70dB.
229. The conclusions made within the ES and ESA are drawn from the $L_{Aeq,T}$ metric against the LOAEL/SOAEL and %highly sleep disturbed. The other types of indices were assessed in the ES but they were not updated as part of the ESA. However, BAL did later undertake this exercise for the Inquiry.¹⁰⁷
230. The primary use of the $L_{Aeq,T}$ metric was an area of considerable debate between the relevant parties. A significant number of local residents affected by noise from the existing operations also expressed their concern and frustration of its use, citing that aircraft noise is not experienced in an averaged manner. Concerns about this metric failing to take account of tone, intermittency, frequency from air and ground noise were also expressed.
231. The Panel is mindful of the significant body of evidence which has reviewed the use of the $L_{Aeq,T}$ metric and concluded that it represents the most appropriate metric to use. Specifically, the use of averaged indices is noted in the APF as important for showing trends in total noise around airports and their use is also affirmed in the Government's Consultation Response on UK Airspace Policy.¹⁰⁸ More recently, the 2020 report 'A review of aviation noise metrics and measurements' by the Independent Commission on Civil Aviation Noise (ICCAN) supports their continued use, as does the revised update to 'Survey of Noise Attitudes 2014: Aircraft Noise and Annoyance, Second Edition,' and 'Survey of Noise Attitudes 2014: Aircraft Noise and Sleep Disturbance' both published in July 2021.¹⁰⁹ These latter reports provide further update and

¹⁰⁶ Daytime period equates to between 07:00-23:00 hours and summer months is considered as a 92 day period from 16 June to 15 September (inclusive).

¹⁰⁷ Mr Williams Rebuttal PoE.

¹⁰⁸ CD: 10.33

¹⁰⁹ INQ/022 and INQ/025

assessment of a previous study published in 2017¹¹⁰ (the Survey of Noise Attitudes 'SoNA' studies).

232. Crucially however, the APF and other abovementioned studies recognise that communities do not perceive or experience noise in an averaged manner and that, conceptually, there are difficulties in understanding this and the use of logarithmic scales in noise measurement and reporting.
233. Conversely, it is recognised that there are weaknesses in the other single event metrics. For example, the N metric only considers events above a L_{Amax} threshold. By way of illustration, N70 would only reflect events above the 70dB threshold, whereas the $L_{Aeq,T}$ would take into account the sound energy of every event, be it above the 70dB L_{Amax} or not. Increases in events above a set threshold could thus be shown as a small change in dB as it does not account for scale. In addition, as set out in the ICCAN report, the correlation of the SEL and the L_{Amax} metrics with sleep disturbance is unclear or weak.¹¹¹
234. NSC also raised concern regarding a lack of 24-hour assessment of combined day and night effects and lack of additional awakenings assessment. WHO 'Guidelines for Community Noise' (1999)¹¹² (GCN) identifies the importance of providing the total adverse health load of noise considered over 24 hours. No policy requirement is in place to assess awakenings. In any case, BAL provided the awakenings assessment in their rebuttal and figures for 24 hour assessment.
235. The APF and ICCAN report are clear that average noise contours should not be the only measure used to assess effects. The updated SoNA reports state that there is merit in considering greater use of N metrics to help portray noise exposure.¹¹³ The GCN identify that intermittent noise should also be taken into account and the use of L_{Amax} .
236. Overall, the Panel considers that none of the indices are perfect. The $L_{Aeq,T}$ metric is a relevant consideration as advocated in the various guidance documents but there is a need to consider other indices in establishing an accurate picture of noise effects. It is thus considered that the general approach in the ES and ESA, when combined with the further evidence on single event metrics and assessments is sufficient for the purposes of decision making, the results of which are further analysed below.

Noise Values

237. The purpose of assigning noise values is to define a level of exposure above which adverse effects on health and quality of life can be detected, that is the LOAEL, SOAEL, and UAEL.
238. The NPSE states that "*it is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times.*"¹¹⁴ This is also applicable for LOAEL, again depending on the types and sources of noise and the receptors.

¹¹⁰ CD: 10.09

¹¹¹ Table 3 pages 37-41

¹¹² CD: 10.01

¹¹³ INQ/025 Para 8.10 Page 70

¹¹⁴ Para 2.22

239. There is, however, a considerable body of evidence which has sought to provide guideline values, including studies specifically on aviation noise, which are underpinned by data on health effects. It should also be noted that the evidence recognises that the public is becoming more sensitive to aviation noise, to a greater extent than noise from other transport sources.
240. The ES and ESA assigned values the $L_{Aeq,T}$ metrics and L_{ASmax} and the SEL values for night-time. For ease of reference, these are set out below:

Daytime Criteria $L_{Aeq,16h}$	Night-time Criteria		
	$L_{Aeq,8h}$	L_{ASmax}	SEL
51dB (LOAEL)	45dB (LOAEL)	60dB	70dB(A)
63dB (SOAEL)	55dB (SOAEL)	80dB	90dB(A)
69dB (UAEL)	63dB (UAEL)	90dB	100dB(A)

241. The daytime criteria were not disputed, but the $L_{Aeq,8h}$ values set for night-time were not agreed and NSC consider that a 40dB LOAEL and 50dB SOAEL should be applied. No preferred UAEL figure is specified by NSC, although the adopted figure in the ES/ESA is also disputed.
242. Dealing first with the values assigned to the $L_{Aeq,T}$ metric, the ES and ESA follows the LOAEL for day and night aviation noise set out by the DfT's Air Navigation Guidance (2017).¹¹⁵ This guidance does not specify SOAEL, as it states that there is no one threshold at which all individuals are considered to be significantly adversely affected by noise, taking a similar approach to the NPSE.
243. In terms of LOAEL, the 2009 WHO 'Night Noise Guidance' (NNG) publication¹¹⁶ recommended that night noise exposure should be reduced below 40dB L_{night} .¹¹⁷ This was reinforced in their 2018 publication 'Environmental Noise Guidelines' (ENG)¹¹⁸ where they strongly recommended reducing levels to below 40dB L_{night} as aircraft noise above this level is associated with adverse effects on sleep. The document considered that this guideline should be adopted as policy in most situations. It is also noted that 40dB L_{night} has been applied in the ES for HS2.¹¹⁹
244. The ESA explains that this figure was not used as this would impose significant restrictions on the current permitted operations of most major airports. This is recognised by the updated SoNA studies which states that with present technology, achievement of the 40 dB L_{night} target would require almost complete closure of all transport systems, including roads, railways and airports. The Government considers this reduced target in AS, and while it agrees with the ambition to reduce noise and minimise adverse health effects, they want policy to be underpinned by the most robust evidence on these effects, including the total cost of action and recent UK specific evidence which the ENG report did not assess.

¹¹⁵ CD: 10.12

¹¹⁶ CD: 10.34

¹¹⁷ L_{night} being broadly equivalent to $L_{Aeq,8h}$

¹¹⁸ CD: 10.28

¹¹⁹ Mr Fiumicelli PoE Page 108

245. For SOAEL, the 55dB $L_{Aeq,8h}$ value is applied, and this was derived from the NNG document. This value has also been applied in a number of airport Inquiries¹²⁰ and is used as an eligibility criterion for insulation schemes at several UK airports.
246. NSC were critical of its use given that BA is in a rural location where background noise is lower. In specifying this threshold, the NNG document recognises that this does not take background noise levels into account. The 'Aviation Noise and Public Health Rapid Evidence Assessment' by ICCAN (2020)¹²¹ also notes that studies have shown that the percentages of highly sleep disturbed vary due to background noise levels. The report states levels of 50dB L_{night} with higher background noise cause significantly lower levels of being highly sleep disturbed. The recent SoNA report relating to sleep disturbance also identifies greater levels of sleep deprivation than previous studies, including around the 50dB $L_{Aeq,8hr}$ level.
247. BA is in a rural location and, having undertaken several site visits during the day and night-time, the Panel has sympathy with NSC's and local communities' position that this should be factored into the ES/ESA through the noise values assigned to LOAEL and SOAEL. That said, in AS the Government has made its position clear in terms of the use of the NNG threshold for night-time SOAEL. Moreover, as no technical evidence regarding background noise levels in the area is before the Panel, it is not possible for us to come to an informed view on this.
248. In terms of other metrics, while BAL presented results on the Nx metrics, the accuracy in their application was queried by BAL.
249. For N70, BAL considers that this threshold has no particular significance in the UK, as it is derived from Australian noise studies. The ICCAN report does state that further work is needed to determine what noise levels the Nx metric should be set at as part of future best practice guidance and that work has yet to be undertaken.
250. However, the same thresholds have been applied in the UK when using this metric, including in the SoNA reports (original and updated). The coefficients were also examined in the updated reports which shows how well the models fit the observed data. For daytime, they show an adequate correlation, although the r^2 value of 0.874 demonstrates that the $L_{Aeq,16h}$ is better than N70 with a lower r^2 value of 0.694. While the N60 threshold was not a matter in dispute, it is also noted that for night-time, the indicators are highly correlated with the $L_{Aeq,8h}$ r^2 value at 0.883 and N60 at 0.882.
251. In setting noise values for assessment purposes, some are set out in policy and technical guidance, but a degree of reasoned judgement must be applied. Overall, there may be a clear direction of travel and reduction in the noise thresholds going forward. However, in examining the values in respect of all of the metrics, including $L_{Aeq,T}$ and Nx as assessed in the ES/ESA, the Panel consider that these are acceptable for the purposes of this decision as a mechanism of identifying the LOAEL and SOAEL and accurately establishing the noise effects of the development on health and quality of life.

¹²⁰ Mr Williams PoE Table 5, P43, excluding Stansted which was 54dB (a 1dB reduction).

¹²¹ Mr Fiumicelli PoE Para 6.73

Change Criteria

252. As explained in the ICAAN report, the dB scale is logarithmic and thus small numerical increases in dB values can represent large increases in noise energy. The relationship between hearing and dB is also not exact due to the way in which the brain processes sound.
253. An increase of 3dB is equivalent to a doubling of sound energy, however the human ear can barely detect a change in sound level of 3dB if all factors are the same. Conversely, a change of 10 dB in either direction is generally regarded as a doubling (or halving) of subjective loudness.
254. 3dB has been applied in the ES/ESA assessment of the magnitude of noise impacts between LOAEL and SOAEL and 2dB above SOAEL. This threshold is based on IMEA guidelines for Environmental Noise Impact Assessment (2014)¹²² which describes the effect of a change in sound level of less than 3dB as not significant. It is also commonly used as a measure of when acoustic insulation is required, as set out in the APF and AS, and has been applied at other airport Inquires.
255. The PPG recognises that *"in cases where existing noise sensitive locations already experience high noise levels, a development that is expected to cause even a small increase in the overall noise level may result in a significant adverse effect occurring even though little to no change in behaviour would be likely to occur."*¹²³ The SoNA studies, both the 2014 versions and the updated version also recognise that annoyance increases at a faster rate at higher noise levels.
256. This matter relates back to the issue of the use of $L_{Aeq,T}$ metrics and the averaging of the effects over 16/8 hours. At the Inquiry the Panel heard from a number of residents who explained that the noise levels in the peak periods (early morning and late evening) are extremely perceptible and intrusive. Therefore, while the variations in the relevant L_{Aeq} period could be less than 3dB when averaged out over 16 or 8 hours, in reality there would be increased noise events which would be perceptible and higher than 3dB.
257. The Panel have considerable sympathy with that position and have undertaken site visits at busy periods to understand the regularity of air traffic in those times, albeit this was only a sample and flights were still limited due to Covid-19 travel restrictions.
258. However, no alternative appropriate measure for the change criteria was put forward, and the 3dB is current best practice for assessment within an ES. In light of this, the Panel consider it an appropriate threshold as part of the EIA process.

Effects

259. Daytime and night-time noise impacts based on the $L_{Aeq,T}$ metrics are set out in the ES and updated in the ESA. Results are set out with the 2017 baseline, 10 mppa (without development) in 2024¹²⁴ and 2030, and 12 mppa in 2030

¹²² CD: 10.49

¹²³ Paragraph: 006 Reference ID: 30-006-20190722

¹²⁴ When 10mppa is currently forecast to be reached (revised from 2021 in the ES).

(with development). These are summarised in terms of the number of dwellings affected in the table below.¹²⁵

	2017 Baseline	10mppa 2024	10mppa 2030 (without development)	12mppa 2030 (with development)
	# dwellings	# dwellings	# dwellings	# dwellings
Daytime LOAEL 51 dB LAeq16h	3250	3200	2600	3100
Daytime SOAEL 63 dB LAeq16h	20	20	10	10
Night-time LOAEL 45dB LAeq8h	3750	3800	3400	4000
Night-time SOAEL 55dB LAeq8h	150	200	100	250

260. In the 2030 'with development' scenario, there would be a reduction in dwellings affected above the LOAEL and SOAEL in the daytime. This is due to the use of a more modern and quieter fleet by 2030. Night-time noise effects would see an increase in the number of properties affected above the LOAEL and SOAEL, albeit any changes would be below the ES/ESA significance threshold of 3dB, with properties experiencing a 0-1dB or 1-2dB increase.
261. The $L_{Aeq,T}$ metric data has also been used to calculate the number of people forecast to be highly annoyed from daytime noise and the number of people expected to be highly sleep disturbed, using established methodologies. In respect of the former, annoyance was calculated as reducing from the 2017 baseline from 750 people to 700 people in 2030 in the 'with development' scenario. For sleep disturbance, the 2017 baseline is 450 and the 12 mppa 2030 'with development' scenario is 500. The 'highly sleep disturbed' appraisal was used as an input into the HIA in the ES/ESA which concludes that the night noise impacts do not result in significant health population impacts.
262. In terms of supplementary single event metrics, the number of dwellings above the threshold of 90dB SEL or 80dB L_{ASmax} increases from the 2017 baseline. These would be the same for the 2030 with and without development scenarios, at 350 dwellings for 90dB SEL and 500 dwellings for 80dB L_{ASmax} . The N metric results are set out below:¹²⁶

	Dwellings Exposed to No. Events Above 70dB LA_{Smax} per Day				
	10-19	20-49	50-99	100-199	200+
2017 Baseline	3100	1450	650	3100	0
10mppa 2030	1950	1200	700	20	0
12mppa 2030	2200	1350	750	500	0
	Dwellings Exposed to No. Events Above 60dB LA_{Smax} per Night				
	10-19	20-49	50-99	100-199	200+
2017 Baseline	3800	90	0	0	0
10mppa 2030	4500	100	0	0	0
12mppa 2030	5400	3150	0	0	0

¹²⁵ As taken from Table 6 and Table 9 of Mr Williams PoE.

¹²⁶ Amalgamated from Mr Williams PoE table 13 and table 14.

263. These results show a worse position than the $L_{Aeq,T}$ metric, although similarly there would be a general decrease in daytime effects, albeit this is less of a reduction for the 'with development' scenario, than the 'without development' scenario. At night-time, these would again be increased above the baseline for each scenario albeit those changes would be 0-2dB change, which in ES/ESA terms is negligible.
264. The 90dB SEL metric, the 80dB L_{ASmax} and N60 metrics relate to outside noise levels which must be adjusted accordingly to understand the internal night-time effects. Outdoor to indoor transmission loss figures as set out in the ENG were agreed between parties as 60dB with windows fully open, 55dB with windows half open and 45dB with windows closed. Insulation can also reduce this further, although there is no specific data for this.
265. Related to this, there was a technical concern raised by NSC in respect of the difference between the L_{Amax} fast time ratings and slow time ratings, with the ES/ESA using slow time rating, but against the WHO values which relate to the fast time rating without any correction of the differences. It was, however, agreed by BAL in cross-examination that a 3dB correction is required to address this matter. Updated data was not provided in light of this concession, but it is clear that more dwellings would be exposed than is reflected in the above table.
266. As previously referenced, an assessment of the combined effects of noise throughout a 24-hour period was not provided in the ES/ESA. Figures were given during cross-examination by BAL, albeit these made reference to number of affected people rather than dwellings which makes it difficult to assess on a like-for-like basis with the published data. What is clear however is that there would be a number of dwellings affected by both daytime and night-time noise effects above the threshold.
267. The awakenings assessment shows that one location would pass the threshold of one additional awakening per night. This is in contrast to NSC's evidence, however this was a theoretical exercise and was not based on actual locations or levels from aircraft. The Panel does however share the concerns that BAL's assessment, based on the L_{night} metric, does not present a worse case. This assessment also assumed that windows are open at night for 25% of flights and it is unclear as to how this figure was calculated, given that peak demand is in the summer when night ventilation is likely to be required.
268. The above results relate to residential receptors. Non-residential receptors were also assessed, including Winford Primary School, places of worship and amenity areas. The results in the ES/ESA found no change or worsening in noise between the baseline and the scenarios.
269. In analysing the above, and in spite of deficiencies in some of the data, for daytime, the $L_{Aeq,T}$ metrics show an overall reduction when compared to the baseline and a reduction in annoyance, whereas the N index was mixed, with a general decrease, other than an increase of 100 dwellings exposed to 50-99 events above 70dB L_{ASmax} per day.
270. These findings, in part, relate to improvements in aviation noise from an updated fleet which would reduce the noise impacts of the additional growth. Related to this is the matter of shared benefits from technological advancement

and 'less noisy' next generation aircraft. As calculated by NSC,¹²⁷ some 77% of the reduction in the daytime LOAEL would be consumed by the expansion plans, 71% of the reduction in contour area would be taken compared with a without development scenario for daytime SOAEL and 66% of the reduction in highly annoyed population would be taken.

271. The concept of sharing the benefits is set down by the APF, but it gives no guidance on how it should be calculated or assessed. The figures cited above demonstrate, along with the raw data from the 'with' and 'without development' scenarios against the baseline, that all benefits are not fully taken up by the proposed expansion and thus there would be some sharing. However, the benefits are weighted more in favour towards expansion, rather than towards the community.
272. It should also be noted that the results account for indoor noise, and do not reflect noise exposure in gardens experienced by local residents, particularly in the daytime summer months.
273. At night-time the picture is clearer as the evidence demonstrates that there would be increases in the number of properties experiencing noise above LOAEL and SOAEL. All of the metrics demonstrate this, albeit to different degree, with the Nx metric showing more properties affected. This would, however, all be between 0-2dB which the ES/ESA recognises as negligible.

Ground Noise

274. The above has dealt largely with matters relating to air noise. However, ground noise effects were also in dispute. As set out in the ESA, 100 dwellings would be exposed to daytime noise levels above the LOAEL of 50 dB $L_{Aeq,16h}$, which represents an increase from the 2017 baseline of 70 properties and the without development 2030 scenario of 90 properties. In all scenarios, Core Hill on Cooks Bridle Path is exposed to levels above the SOAEL. This property is located near to the western stands and it is understood that it has previously benefitted from BAL's noise insulation grant scheme.
275. In terms of night-time effects, 70 dwellings were exposed to a night-time ground noise level at or above the LOAEL of 45 dB $L_{Aeq,8h}$ in the 2017 baseline as a result of aircraft operations at BA. This is expected to increase to around 100 in the 10 mppa scenario and around 90 in the 12 mppa scenario. Again, Core Hill is exposed to levels above the SOAEL in all scenarios, but an additional property, The Lodge, also on Cooks Bridle Path, would be exposed to levels above SOAEL. In all cases, those affected properties would experience increases of less than 2dB.
276. Currently there is a condition in place which restricts the use of APUs on stands 38 and 39. The overnight use of APU's at stands 33-36 is also restricted, for the period 23:00-07:00. This is in order to protect the residents of nearby properties, including those along Cooks Bridle Path. BAL proposes the removal of the restriction at stands 38 and 39 and instead proposes to restrict their use at night-time between 23:00-06:00 to allow for greater flexibility. The above results have assessed noise effects in respect of this change.

¹²⁷INQ/106-0 Pages 44-45

277. From the demonstration the Panel were given of the use of an APU on the site visit, it is clear that this equipment is particularly noisy and properties closest to these stands are currently protected from the most adverse effects through the existing condition.
278. We were also made aware of the current 6-month trial for the use of electric Ground Power Units (eGPU) as part of ascertaining the scope for implementing wider application of zero-emission ground-based operations.^{128[1]} The use of eGPU's would also reduce noise effects from the diesel powered APU's.
279. The ES/ESA results demonstrate a worsening picture for ground noise, albeit below a 2dB change. The Panel are however, concerned in respect of this element of the development, particularly as only the $L_{Aeq,T}$ metrics were assessed by the ES/ESA for ground noise and thus there is no data on Nx events which would be experienced by those properties near to these stands. The case for the removal of this condition is also weakened considering BA's long-term move towards the use of quieter eGPUs and there is also a potential mismatch of the existing condition for stands 33-36 which restricts their use for the full night-time period until 07:00, which is not fully justified.

Mitigation

280. By way of mitigation, the UU proposes funding for dwellings exposed to noise levels above the SOAEL. As set out in AS, the Government are proposing new measures to improve the noise insulation scheme, recognising that it is important in giving affected communities a fair deal. This includes extending the noise insulation policy threshold to 63dB $L_{Aeq,16hr}$ contour to 60dB $L_{Aeq,16hr}$, a review of effectiveness of existing schemes including levels of contributions and new guidance on best practice for insulation schemes to improve consistency. At the current time, guidance on these has not been published or updated.
281. The funding would be for noise insulation, as well as ventilation and cooling devices. Any noise mitigation scheme would be designed to achieve day and night internal $L_{Aeq,T}$ from BS 8223:2014 without a 5 dB uplift and on no more than 10 occasions per annum noise levels should reach no more than 45 dBA L_{Amax} due to aircraft noise intrusion in bedrooms between 23:00 and 06:59 hours.
282. All properties above the SOAEL would be eligible for the scheme. The sums would amount to £8,000 for properties in the contour of 60dB $L_{Aeq,16h}$ or above, £5,000 for 57dB $L_{Aeq,16h}$ or above and £5,500 for 55dB $L_{Aeq,8h}$ or above. The funding levels were increased during the Inquiry from the original offer in the draft obligation and the previous funding cap removed.
283. This would not provide mitigation for those properties within the 54dB $L_{Aeq,16h}$ contour and those experiencing greater than 45dB L_{Amax} at night for more than 15 times per night, as requested by NSC. The scheme would also fail to capture properties identified as being above SOAEL in the Nx assessment. There is also limited evidence in respect of whether the specified funding levels would be sufficient to achieve the requisite levels.
284. However, it is noted that the scheme is an improvement over the current scheme which amounts to £5,000 to properties exposed to 63dB $L_{Aeq,16hr}$ and

¹²⁸ INQ/061

- others are eligible for a grant of £2,500 with the condition that they must contribute the same amount (match-funding).
285. A number of planning conditions are also proposed which serve to control the noise effects. The noise conclusions contained within the ES/ESA rely, in part, on the conditions being in place. The S106 also sets out a number of requirements to produce schemes and strategies for monitoring, implementation and maintenance/verification reports to ensure that the conditions are enforceable.
286. An updated QC condition is proposed. This is in place as part of the 10 mppa consent but would include additional bands to increase the control of noisier aircraft at certain times and would limit older aircraft with a higher QC rating.
287. Day and night-time contours would also be conditioned. The condition put forward by NSC relates to the 51 $L_{Aeq,16h}$ and 45 $L_{Aeq,8h}$ contour¹²⁹ which would align with the LOAEL. BAL's suggested condition is set at the 57db $L_{Aeq,16h}$ and the 55 $L_{Aeq,8h}$ contour¹³⁰ which is in accordance with community annoyance guidelines. BAL have, however, amended the specified distances so that they follow the contours assessed by the ESA, rather than the more generous areas previously put forward. The condition would also include a mechanism to reduce the contour size when passenger numbers fall between 10 mppa and 12 mppa.
288. BAL's noise contour condition would not fully address NSC's concerns and would not reflect properties affected by noise levels above the LOAEL but below the SOAEL (and it also only uses the $L_{Aeq,T}$ metric). However, in light of the same noise thresholds being applied in the noise mitigation scheme in the UU, for consistency, BAL's condition would be the most appropriate. It should also be noted that even if the NSC's fleet mix were to be realised, this would be limited by the proposed contour limits.
289. A condition limiting ATMs for any 12-month period was put forward by NSC. This was disputed by BAL who considers that the proposed passenger cap, along with the contour and QC conditions, would effectively limit the number of aircraft flying out of BA, in spite of any technical advancements with noise. It was also suggested that a cap would disincentivise airlines to introduce quieter aircraft.
290. 'CAP1731 Aviation Strategy: Noise Forecast and Analyses' (2019)¹³¹ provides a detailed analysis of noise limits scheme options for an airport and cites advantages and disadvantages of the different approaches. This document also notes which airports operate under which restrictions. Stansted, London City, Belfast and Heathrow airports operate with ATM limits in place.
291. The Panel consider that such a condition is reasonable and necessary. This is because it would limit a greater number of quieter planes being flown from BA which would be permissible under the QC condition and would help to address the number issue identified in the Nx assessments, as the contour cap relates solely to the $L_{Aeq,T}$ metric at higher dB levels. While the passenger cap would assist in part with restricting this, and it is accepted that there is no

¹²⁹ INQ/112

¹³⁰ INQ/114

¹³¹ CD: 10.13

- commercial incentive to fly empty planes, it would not fully address matters of greater numbers of planes flown which were not at full capacity. In addition, while an ATM cap alone would disincentivise airlines using quieter aircraft, the combination of the three conditions would not. It is also noted that conditions restricting ATMs, passenger throughput and noise contours were imposed at Stansted in the recent appeal decision.
292. NSC also suggested a Grampian condition requiring BA to achieve full co-ordinated status prior to implementing the proposed development. Without this, it was argued that the noise controls would not be enforceable. BAL disputed the need for such a condition, suggesting instead a condition which requires an application for co-ordinated status to be made prior to the passenger throughput exceeding 11 mppa.
293. Slot-coordination is a process by which congestion is managed to avoid delays.¹³² BA is currently partially co-ordinated for night-time flights and is the only UK airport to currently have this arrangement. BAL applied for co-ordinated status in 2019 as it approached 10 mppa, but withdrew that application because the Covid-19 pandemic reduced demand.
294. It is clear that an increase to 12 mppa would mean that full slot co-ordination is necessary and that this would assist in the enforceability of above mentioned conditions for noise. However, it is covered by separate regulatory requirements¹³³ granted by the SoS for Transport, and BA has operated within its existing contour cap without being fully co-ordinated thus far.
295. Having carefully considered this matter, the Panel consider that a Grampian condition requiring slot coordination before any development takes place would not be reasonable. A more reasonable approach would be to impose BAL's suggested condition, but in an amended form with a requirement to have made an application before exceedance of a passenger throughput of 10 mppa, rather than 11 mppa. This would give greater certainty and better align with the original intention of BA to apply as the 10 mppa threshold was approached while taking on board NSC's concerns.
296. Finally, in light of our findings in respect of ground noise, the retention of the existing APU condition for stands 38 and 39 would be necessary to mitigate adverse effects on nearby properties.
297. Taking the above together, mitigation would assist in addressing some of the identified effects, particularly those properties above the SOAEL via the insulation scheme. Conditions would assist in limiting noise effects through restrictions in ATMs, passenger numbers, quota counts and noise contour caps. Effects experienced from ground noise would also be limited by retaining the existing APU condition.
298. While any mitigation must be proportionate, there are concerns that the focus is for those properties above the SOAEL, and even this is only based on the $L_{Aeq,T}$ metric. Mitigation and minimisation of effects that arise above LOAEL are limited and, there may be other properties also affected above the LOAEL that would not be addressed. Air-noise experienced in gardens would also not be addressed.

¹³² INQ/044 provides a briefing note on this.

¹³³ Airport Slot Allocation Regulations 2006 which transpose EEC Regulation No 95/93 into domestic law.

Conclusion on Noise

299. As previously outlined, several CS and DMP policies require that there should be no unacceptable effects on, or a satisfactory resolution of, noise effects. This is also recognised by the specific policies relating to BA. The NPPF and NPSE also contains similar aims.
300. The noise advice in the PPG is that where noise is between the LOAEL and SOAEL, the advice is to take all reasonable steps to mitigate and minimise adverse effects on health and quality of life. Noise above the SOAEL should be avoided using appropriate mitigation. In all cases, the guiding principles of sustainable development must be taken into account.
301. BAL considers that the scale of the impact would be low, at between a 0-2dB and that an average increase from 175 to 207 daily ATM's, and an additional three arrivals and four departures per night is also of a small scale.¹³⁴
302. However, based on the above analysis, and even with mitigation, the noise impacts would be such that the grant of planning permission would result in a greater noise impact than from the baseline and from the 2030 'without development' position and an increase in dwellings above the established LOAEL and SOAEL thresholds. This is demonstrable through the application of the $L_{Aeq,T}$ metric. The application of complementary metrics such as the N_x metric reveal this further.
303. In analysing the effects of the proposed development, it is important to recognise that there is a difference in terms of significance thresholds in assessing LOAEL and SOAEL which relates to the absolute noise level and significance in ES/ESA terms which relates to the significance of the proposed change (i.e. from 10 mppa to 12 mppa). This difference goes to the heart of the respective parties' positions in terms of the effects.
304. The change in the air noise effects is important in understanding significance. It is clear that the findings of the ES/ESA, even with the increases in the number of properties above LOAEL and SOAEL, are negligible and thus are 'not significant' in those terms.
305. The Panel does not seek to go beneath such conclusions in EIA terms, but we recognise that noise effects, even at a lower scale and with some sharing of benefits from a modernised fleet, would be experienced by those communities in and around BA, particularly from aircraft noise. Levels would increase above the LOAEL and SOAEL thresholds for a number of properties, and the effects would be as such that there would be adverse impacts on amenity and upon health and quality of life. This would conflict with paragraph 185 of the NPPF and development plan Policies CS23, CS3 and DM50. There would also be some conflict with the APF and MBU, insofar as they seek to limit noise effects from aviation.
306. Consideration of the wider principles of sustainable development as required by the PPG, as well as CS23, and APF and MBU will be considered as part of the planning balance.

¹³⁴ Mr Pyper Rebuttal p12, para 2.1.42

Air Quality

307. It has long been recognised that air quality poses a significant environmental health risk in the UK.¹³⁵ In terms of aviation, air quality issues arise from aircraft, airside operations (including taxiing and airside equipment) and from surface access transport.
308. NO_x and particulate matter (PM₁₀ and PM_{2.5}) are the most important pollutants arising from aviation and were assessed by the ES¹³⁶ and ESA¹³⁷ for both construction and operational effects. These pollutants are widely acknowledged to lead to health effects including respiratory conditions.
309. The Air Quality Standards (AQS)¹³⁸ set an annual mean of NO₂ at 40 µg/m³ which aligned with the 2006 WHO guidelines. The 2021 WHO Air Quality Guidelines (AQG) has reduced that to 10 µg/m³. For particulate matter, the AQS for PM₁₀ is set at 40 µg/m³ and for PM_{2.5} it is 25 µg/m³. The updated AQG now recommend 15 µg/m³ for PM₁₀ (reduced from 20 µg/m³ from the 2006 AQG) and 5 µg/m³ for PM_{2.5} (reduced from 10 µg/m³ from the 2006 AQG).
310. For air quality there are predicted to be no significant effects. Focusing on the updated predicted total contributions¹³⁹ results in the ESA, by 2030 the NO₂ PEC would range from 5.1-29.03 µg/m³. Overall, there would be a slight deterioration at 14 receptors, but these would all be well within the relevant AQS.
311. For particulate matter it is a similar picture. For PM₁₀ the PEC would range from 10.6-17.38 µg/m³ and for PM_{2.5} from 6.7-10.15 µg/m³. Again, in both cases PM levels are predicted to be well below the AQS levels despite some worsening of effects at some receptors.
312. These results were then fed into the HIA contained within the ES and ESA which found negligible effects on the general population and minor adverse effects on vulnerable groups. This was deemed not to be significant overall.
313. Based on the updated AQG, it is clear that there would be an exceedance of these limits, however nowhere in England currently meets these targets, other than highly remote areas.¹⁴⁰ Indeed, this document recognises that while the AQG should be the ultimate goal, this might be a difficult task, and accordingly interim targets are recommended.
314. NSC consider that there is insufficient evidence to conclude that there would be no health impacts from the proposed development even though it is accepted that current standards are met. Policy (as previously summarised) seeks to avoid or prevent emissions and only where they cannot be prevented, to mitigate and reduce levels as far as possible. Various policy and guidance documents also make clear of a direction of travel towards lower targets and indeed improvements to air quality. There can also be no doubt that there is a significant body of evidence in respect of air quality matters and health effects since the adoption of the AQS. It is also acknowledged that the HIA was

¹³⁵ Such effects are identified and summarised in INQ85 and CD: 8.07, as well as a wealth of other documentation.

¹³⁶ CD: 2.05.19 and appendices 8A-8E in CD: 2.05.20

¹³⁷ CD: 2.20.1 and appendices 7A-7B in CD: 2.20.5

¹³⁸ CD: 8.03

¹³⁹ These are the total ground level concentration from all sources, including the proposed development.

¹⁴⁰ As depicted from Defra maps in INQ/091, figures 3.1 and 3.2.

- written prior to the publication of the AQG and thus these are not factored into that assessment.
315. However, at this stage the Environment Act 2021 does not alter the current AQS limit values and reduction targets and, crucially, the Panel are mindful that predicted levels at 2030 are well within current AQS levels.
316. Any secondary legislation arising from the Environment Act 2021 may introduce tighter limits, similar to those set out in the 2019 Air Quality Strategy or the 2021 WHO Guidelines. It is noted that the Act includes review mechanisms for any adopted targets on a 5-yearly cycle. However, there are no timescales for the introduction of secondary legislation, nor is it clear at this stage how the WHO Guidelines will influence any revised targets. Accordingly, the weight that can be attached to the AQG at the current time is limited.
317. The ESA demonstrates that the development would not achieve improvements in air quality. However, it is clearly a national and international issue which will start with the adoption of revised target emissions from the current AQS. A condition is proposed which requires the submission of an Air Quality Action Plan (AQAP) which would include targets for the delivery of measures to reduce the impact of BA operations on local air quality. This would provide mitigation. In addition, the condition requires the AQAP to be updated should new national and local policies emerge and also to take account of new scientific or technological developments. This would thus incorporate the future targets set as part of the Environment Act as well as any future aviation policy and in the longer term, should secure improvements. Provision is also made as part of the S106 in respect of a monitoring programme.
318. The Panel are also mindful of the conditions and obligations relating to surface access, electric vehicle provision and off-site highways improvements would also be likely to have a beneficial effect on air quality. Similarly, any future use of eGPUs which are currently being trialled¹⁴¹ would also likely have a benefit on air quality, although it is recognised that this is only at a very early stage.
319. Neither the ES nor the ESA assessed UFPs. These are particles with a diameter of less than 0.1 microns and while they are a component of PM_{2.5} they can have independent effects and be harmful to health through penetrating deep into the respiratory system and which may have a greater health impact at smaller exposure levels.¹⁴²
320. Currently, there are no air quality standards in UK regulations or policy for UFPs. Indeed, the 2021 WHO guidelines notes that the available information is insufficient to derive AQG levels for these. However, it is noted that further research on risks to health and mitigation are warranted and for the assessment of these including integrating UFP monitoring into existing air quality monitoring is recommended as part of a good practice statement.
321. The Panel is satisfied that the proposed condition as worded could also reasonably include future measures to monitor UFPs as methodologies become established and would thus provide comfort in respect of concerns over these particulates.

¹⁴¹ INQ/061

¹⁴² As set out in CD: 8.12

322. Taking the above together, the Panel recognise the effects of poor air quality on health and wellbeing and that it has serious and long-term effects. There is also a significant body of evidence in respect of health effects which is not currently reflected by the AQS levels set out by the regulations. Moreover, it is likely that new control levels will be reduced from current AQS levels in the not too distant future.
323. However, future targets are not yet known, and if the Government were to adopt WHO targets, it seems highly likely that there would be interim measures. Critically, anticipated levels arising from the proposed development would be well within current control levels and there is long term scope for improvements, alongside meeting any new targets which will be set, which could be secured by condition. There is thus no evidence to suggest that the predicted levels would compromise future objectives and targets.
324. In this regard, the Panel are satisfied that there would be no unacceptable effects on air quality from the proposed development on health and wellbeing. The proposals would accord with development plan policies CS3, CS23, and DM50, AQS thresholds, paragraphs 174 e), 185 and 185 of the NPPF, as well as national policy on aviation (insofar as air quality is concerned). Accordingly, the issue of air quality is a neutral consideration in the planning balance.

Surface Access

Overview

325. BAL's consideration of the highway effects of the proposed development is contained in a Transport Assessment (TA)¹⁴³, draft Workplace Travel Plan¹⁴⁴, Parking Demand Study¹⁴⁵ (PDS) and a Parking Strategy (PS).¹⁴⁶ These reports were supplemented at the application stage by a suite of Technical Notes¹⁴⁷ in response to the various Regulation 25 requests. The TA and PDS were both updated prior to the Inquiry.
326. Extensive pre-application discussions took place between BAL, NSC and National Highways (NH) to agree the scope and methodology for the TA¹⁴⁸. At the application stage, NH and NSC officers judged the development to be acceptable in terms of its highways impact, subject to various conditions.
327. RfRs 1 and 5 raise various highway issues. RfR1 states that '*traffic and off airport car parking resulting in adverse environmental impacts on communities surrounding Bristol Airport and which would have an adverse impact on an inadequate surface access infrastructure.*' RfR5 is concerned with sustainable transport and states that the proposed public transport provision would be inadequate and would not sufficiently reduce the reliance on car borne trips to/from the airport. (RfR4 and matters relating to the extension of the Silver Zone Car Park are dealt with in the Green Belt section of this decision.)
328. At paragraph 111, the NPPF it advises that "*Development should only be prevented or refused on highways grounds if there would be an unacceptable*

¹⁴³ CD: 2.09.01-2.09.16

¹⁴⁴ CD: 2.10

¹⁴⁵ CD: 2.11 & 2.23

¹⁴⁶ CD: 2.12

¹⁴⁷ CD: 3.4.02, 3.06.09-3.06.23, 3.09.1-3.09.3

¹⁴⁸ Section 5.1 Mr Witchalls PoE

impact on highway safety, or the residual cumulative impacts on the road network would be severe."

329. 'Severe' is the highest test in the NPPF and matters of driver inconvenience caused by increases in queuing and delay are unlikely to constitute severe impacts. The Panel can only consider the specific impact of the proposed development, so while BAL can reasonably be expected to mitigate the impact of the appeal scheme, it is not BAL's responsibility to resolve existing problems on the local road network. That is particularly relevant to many of the highway concerns raised by local people particularly in relation to existing congestion and rat running through local villages.

330. The Panel therefore considers that the following main highway issues emerge:

- Whether the development, including the proposed off-site highway improvements, would give rise to an unacceptable effect on highway safety and/or capacity, and
- Whether appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location, and
- Whether the proposed increase in parking is necessary and proportionate to serve the development.

A38 Improvement Works

331. To mitigate the impact of the development, the proposal would deliver an improvement scheme to the A38 between the main airport access roundabout and West Lane to accommodate the additional traffic.¹⁴⁹ This scheme has undergone various iterations since the application was first submitted and has been subject to a Stage 1 Road Safety Audit (RSA), RSA Designer's Response and a Walking, Cycling and Horse-Riding Assessment and Review (WCHAR).

332. NSC highlighted various technical concerns about the scheme. Before exploring these, two points should be noted. First, the improvement scheme¹⁵⁰ evolved in consultation with the NSC's previous highway advisors and no deficiencies were identified in the RfRs. Second, and perhaps more significantly, the scheme is "*fundamentally*"¹⁵¹ the same scheme as that being promoted by NSC as part of its A38 Major Road Network Investment Programme.¹⁵²

333. One of NSC's principal objections is that BAL failed to update the RSA and WCHAR as the scheme evolved between revisions 8 to 11. However, these amendments were relatively minor with the only noticeable change being the removal of the left turn filter lane for traffic exiting the airport. Accordingly, the Panel is satisfied that the RSA and WCHAR assessments remain fit for purpose.

334. As set out in paragraph 4.3.3 of the TA, the Panel considers that the A38 improvement scheme would result in significant betterment to pedestrians and

¹⁴⁹ See section 4.3 of the TA CD: 2.09.01 for further details

¹⁵⁰ See Drawing C1124-SK-A38-010 Rev 11 CD: 1.37

¹⁵¹ Accepted by Mr Colles in cross examination

¹⁵² INQ/049

cyclists. The improvements include the introduction of a new footway provided north of the West Lane junction, an improved footway/cycleway on the western side of the A38 between the airport and Downside Road, a new footway provided for the section north of the Downside Road tying in with the existing facility north of West Lane. NSC's suggestion that the scheme would undermine the safety of pedestrian or cyclists is not supported by evidence.

335. In relation to highway standards, the Panel notes that the A38 is not a trunk road. Manual for Streets 2¹⁵³ published by the Chartered Institution of Highways and Transportation in 2010 and endorsed by the DfT is relevant for all non-Trunk Road situations. In the vicinity of BA, the A38 performs a number of important functions beyond the movement of vehicular traffic and can therefore legitimately be seen as a street. The mere fact that the A38 is an A-class road does not in itself justify the use of the Design Manual for Roads and Bridges¹⁵⁴ (DMRB). Any departures from DMRB standards¹⁵⁵, need to be seen in that light. Moreover, the Panel is satisfied that there would be scope to address NSC's concerns at the detailed design/s278 stage. Accordingly the minor departures from standards are not in themselves considerations of significant weight.

336. The proposed development would not have a material impact on the numbers of articulated vehicles turning into or out of West Lane or Downside Road (J4b) and therefore concerns about splitter islands and swept paths are not supported. Even if there was a material increase, the Panel is satisfied that there is scope within the red-line boundary to resolve such issues along with geometry concerns at the detailed design stage.

Junction Modelling – Queue Lengths

337. At the appeal stage, NSC introduced a number of minor technical concerns related to the junction assessments in the TA. These concerns are dealt with in turn below.

338. The first concern relates to queue length data. According to NSC, BAL's failure to provide the queue length data for the surveyed junctions means that the conclusions of the TA/TAA cannot be relied upon. However NSC undertook a thorough review of the junction modelling at the pre-application stage in June 2018.¹⁵⁶ That review was aided by a series of technical notes¹⁵⁷ which included a Model Validation Report demonstrating that the junction models met the relevant validation criteria.

339. In addition, Transport for London's Traffic Modelling Guidelines¹⁵⁸ are clear that the queue length data is "*not a validation criterion.*" Nonetheless, section 11 of the TA is clear that the junctions "*have been validated against the recorded traffic and queue length surveys.*" Accordingly, the Panel is satisfied that the junction models have been appropriately validated and are fit for purpose.

¹⁵³ CD: 7.14

¹⁵⁴ CD: 7.03.01-011

¹⁵⁵ Footway/cycleway widths, merge lengths

¹⁵⁶ WSP Technical Note 7 June 2018

¹⁵⁷ CD: 3.04.02, CD: 3.06.09 and CD: 3.06.12

¹⁵⁸ CD: 7.21 Paragraph 5.4.2.5

Junction 1

340. NSC allege a severe impact at the A38/BA roundabout (J1) on the basis that the modelling results¹⁵⁹ indicate that the A38 approaches are forecast to operate with a Ratio to Flow Capacity (RFC) of 0.94/0.89 in the 2030 Test Case (PM peak) scenario. Reference was made to the Junction 9 User Guide¹⁶⁰ which states that the *"RFC provides a basis for judging the acceptability of junction designs and typically an RFC of less than 0.85 is considered to indicate satisfactory performance."*
341. While it is acknowledged that the A38 approaches to J1 would operate close to capacity in the 2030 test case scenario, there was no meaningful explanation from NSC how this would offend the severity test which is a very high bar. NSC also failed to reconcile its concerns about the A38 improvement works with its support for a scheme that would have a very similar, if not the same, outcome. It is also important to note that the 0.85 threshold is not a hard and fast rule, it is simply an indication of performance. There is nothing in the Junction 9 User Guide which suggests that an RFC of 0.85 or more would result in unacceptable levels of queuing and delay.
342. In this specific case, it is relevant that the assessment for J1 used a worst-case scenario¹⁶¹ which assumed that all development traffic uses J1.¹⁶² Moreover, and as with all the junction assessments in the TA/TAA, the traffic flows make no discount for the proposed modal share increase or the double counting arising from the use of TEMPro¹⁶³ growth rates. Even with all these safeguards, the levels of queuing and delay shown in Tables 5.1 and 5.2 do not come close to indicating a severe impact with a maximum queue of 14 vehicles on one arm of the junction in part of the PM peak hour. More realistic assessments of J1 are to be found in the TAA.¹⁶⁴ In all cases J1 is shown to operate with an RFC of less than 0.85 on all arms in all the assessed peak periods.
343. NSC was also critical of BAL's failure to re-model J1 to reflect some of the minor design changes which have occurred since the application was submitted.¹⁶⁵ However, given the minor nature of the changes, further modelling would be unlikely to produce a different result. While NSC has criticised various aspects of BAL's modelling work, it has not carried out any assessments of its own to demonstrate that the development *"would have an adverse impact on an inadequate surface access infrastructure."* Based on the foregoing the Panel finds that there would be no unacceptable impact at J1.
344. Staying with J1, NSC suggested that the existing uncontrolled pedestrian crossing on the A38 arm of the airport roundabout would need to be signalised and that this might have a detrimental impact on the operation of the wider improvement scheme. However, no detailed analysis has been carried out by NSC to demonstrate why it would need to be signalised nor what the impact would be on the operation of the junction. It is noted that the roundabout is not currently signalised and there is no evidence that it does not operate

¹⁵⁹ CD 2.20.3 Table 5.1

¹⁶⁰ CD: 7.22 Page 93

¹⁶¹ See paragraphs 2.2.46-2.2.50 of Mr Witchalls Rebuttal PoE

¹⁶² In reality the traffic accessing the silver zone car parks would do so from Junction 2.

¹⁶³ National Trip End Model Presentation Program (TEMPro)

¹⁶⁴ Table 5.3 of the TAA and Table 2.1 of Mr Witchalls PoE

¹⁶⁵ These were primarily as a result of issues raised as part of the Stage 1 Road Safety Audit

satisfactorily. It is further noted that the RSA does not recommend signalisation. As such, the Panel is satisfied that the retention of the pedestrian crossing facilities would not have a significant impact on highway safety or capacity.

Other Junction Modelling Issues

345. NSC were concerned that the modelling for the A38/Downside Road junction (J4a) failed to take proper account of the pedestrian phase. However, the omission of the pedestrian stage in the initial modelling was agreed with NSC at the scoping stage on account of its infrequent usage.¹⁶⁶ To address NSC's subsequent concerns, BAL has since undertaken a sensitivity test¹⁶⁷ of the junction where the pedestrian phase is engaged 5-6 times an hour - double the observed peak prior to the Covid-19 pandemic.
346. As NSC accepted, the sensitivity test demonstrates that the junction would still operate within capacity in the 2030 test case. It was then suggested that there could be some additional growth in pedestrian trips beyond the doubling already accounted for in the sensitivity test. However, that assertion was not supported by any evidence and is very unlikely to occur.
347. NSC allege a 'severe' impact at the A38/Barrow Lane junction (J6) to the north of BA. As acknowledged in the Committee Report, this junction already operates over capacity with large queues in the peak periods on the Barrow Lane arm. However, the development would not materially add to queuing and delay on the minor road arm and Table 5.9 of the TAA shows that the junction would continue to operate over capacity in the 2030 baseline, reference case, and test case scenarios. Development traffic on the A38 would have some adverse effect on the operational performance of J6 but as Table 5.9 shows, the largest increase in traffic would be between the 2030 baseline and reference case, not the test case.
348. There is no alternative modelling of the junction to show a severe impact and there is no proposal to mitigate it as part of the A38 Major Road Network Improvement scheme. Accordingly, the Panel finds that the development would not have a severe impact on the operation of this junction.

Modal Share

349. Amongst other things CS Policy CS1 sets out that opportunities for walking, cycling and the use of public transport should be maximised through new development, emphasising the aim to encourage and facilitate modal shift towards more sustainable transport modes. RfR5 states: "*the proposed public transport provision is inadequate and will not sufficiently reduce the reliance on the car to access the airport resulting in an unsustainable development.*"
350. The essence of the disagreement between BAL and NSC relates to the public transport modal share (PTMS) target contained in the ASAS, to be secured through Schedule 1 to the UU. While a 2.5% target¹⁶⁸ was originally considered acceptable on the basis of the information provided with the application¹⁶⁹, NSC sought an uplift to 5% at the appeal stage.

¹⁶⁶ CD: 3.4.2 Page 20

¹⁶⁷ Appendix G to Mr Witchalls Rebuttal PoE

¹⁶⁸ It is agreed that the 2.5% mode share target would be measured from a rebased to a new CAA baseline

¹⁶⁹ From 15% at 10 mppa to 17.5% at 12 mppa

351. The baseline position at BA compares favourably to other regional airports¹⁷⁰ with a higher PTMS than Cardiff, Birmingham, Manchester airports¹⁷¹ despite those airports being much closer to their respective urban areas. Manchester and Birmingham airports also benefit from rail links.
352. The PTMS at BA grew strongly over the period 2003-2012 with an increase of approximately 10%. However, over the last decade the rate of PTMS increase slowed and in recent years has stagnated. This suggests that it is not possible to continually increase the PTMS and one must balance the need to maximise sustainable transport modes against what can be realistically achieved in any given case.
353. NSC and others rightly point out that BA has a higher proportion of car passengers than Birmingham and Manchester. However, the proportion of taxis using BA is also significantly less than those airports. That is an important consideration because taxis tend to make two round trips per airport visit whereas those arriving by car (and parking at the airport) only make one.
354. Section 9 of the TA contains a detailed account of the public transport enhancements that are likely to form part of the ASAS.¹⁷² The ASAS would build upon those improvements already implemented as part of the 10 mppa consent.¹⁷³ It would contain a 'Transport Mode Hierarchy'¹⁷⁴, the aim of which would be to recognise the environmental impact of the different modes of transport. Accordingly, those modes at the top of the hierarchy such as public transport would be encouraged whereas car drop-offs, which have the highest impact, would be discouraged.
355. The enhancements contained in the ASAS would include amongst other things, bus service improvements, a public transport improvement fund, publicity, interchange improvements, integration of services, parking management and pricing controls. These enhancements would target those geographic areas with the greatest potential to achieve an increase in patronage. The exact scope of the measures contained in the ASAS would be determined in consultation with a Surface Access Steering Group.
356. BAL has carried out an assessment of the likely effects of the public transport enhancements¹⁷⁵. Table 6.6 summarises the overall impact of the measures and indicates that a 2.9% PTMS increase¹⁷⁶ is achievable provided all the measures were as effective as assumed. However, given the slower rate of growth in recent years, it is not unreasonable to assume that not all of the service improvements will deliver the desired level of modal shift. Consequently, the Panel consider that a PTMS increase of 2.5% is an ambitious but realistic target.
357. By contrast the 5% increase or 26.8% PTMS target advocated by NSC while no doubt ambitious, is considered unrealistic. It is a figure unsupported by analysis to show how it might be achieved. It is important to recognise that a target of 2.5% is not a ceiling, and it might well be the case that measures that

¹⁷⁰ Table 6.3 of Mr Witchalls PoE

¹⁷¹ 21.8% versus 11.3%, 20.7% and 19.8% respectively

¹⁷² To be approved within 6 months of as grant of planning permission

¹⁷³ This includes the already approved public transport interchange which would be delivered in phase 1 of the proposed development

¹⁷⁴ Figure 4.6 Mr Witchalls PoE

¹⁷⁵ Section 6.5 Mr Witchalls PoE

¹⁷⁶ 2.9% equates to 357,000 additional passengers travelling by public transport

sit outside the ASAS (such as the delivery of the public transport interchange (PTI)), might result in some additional uplift. However, that possibility does not justify NSC's 5% target.

358. In addition to the ASAS, a Workplace Travel Plan is proposed which will seek to achieve a 30%¹⁷⁷ share of staff travel by non-single occupant vehicle modes such as car share, public transport, motorcycle, walking and cycling.
359. Various parties have argued for a rail link to be provided as part of the development. While desirable, the provision of a rail link would be unrealistic and unreasonable in the context of the current scheme.
360. Overall, the Panel is satisfied that the proposed PTMS target to be secured through the ASAS is justified. The development thus complies with CS Policies CS1 and CS10, DM Policies DM24, DM26 and DM27, as well as national policy set out in NPPF paragraphs 104 and 110.

Parking Demand

361. RfR1 states that the expansion of BA would generate additional "*off airport car parking resulting in adverse environmental impacts on communities surrounding Bristol Airport.*" The Inquiry heard from local residents about the problem of unauthorised or short-term parking in and around the surrounding villages. In light of these concerns, it is important that suitable and sufficient parking for the development is provided on-site.
362. At the Inquiry, NSC's case moved from the potential environmental effects of under-provision towards an argument which centred on the argument that too much parking was being proposed.
363. BAL's assessment of the number of parking spaces needed to serve the development is contained in the PDS and the PDS update (PDSU) November 2020.¹⁷⁸ The latter identified that, in line with passenger growth, parking at BA has increased steadily since 2011.¹⁷⁹ The PDSU concluded that 22,200 spaces would be needed to serve BA during the peak summer months in 2030. To put this in context, there were some 17,700 spaces in 2019.¹⁸⁰ This equates to an increase of 23% or 4,200¹⁸¹ parking spaces at BA to accommodate the additional 2 mppa.
364. The methodology used in the PDS, which was the subject of much discussion at the Inquiry, is set out at Section 3. The parking model produced a monthly forecast demand for parking. As explained by BAL the model outputs were validated against observed levels of occupancy¹⁸² to ensure there was a close match with actual monthly demand at BA. The forecasts produced by the model are dependent on a number of factors including the growth in underlying passenger demand, the increase in the proportion of inbound passengers, the increase in the overall likelihood to park at BA and changes to the airport's UK catchment area.

¹⁷⁷ The existing Travel Plan has a target of 25%

¹⁷⁸ CD: 2.23

¹⁷⁹ Annual growth rate of 7.8%

¹⁸⁰ This is expected to reach 18,700 at 10 mppa

¹⁸¹ 2,700 to be accommodated within Cogloop 2 and 1,500 within MSCP3

¹⁸² Validation Report Appendix J to Mr Witchalls Rebuttal PoE

365. While the PDSU took account of the most up-to-date passenger forecasts, car park and CAA passenger survey data, the overall methodology was essentially the same as the PDS methodology which was agreed with NSC at the application stage. This was reflected in the Committee Report which concluded that the proposed level of on-site car parking would be “*the minimum required to meet the needs arising from the proposed increase in passenger numbers.*”¹⁸³
366. In contrast to the approach taken for the junction assessments, it is important to recognise that the PDS/PDSU adopt a conservative approach to car park demand which assumes amongst other things, a PTMS of 21.8% plus the 2.5% uplift.¹⁸⁴ The methodology also acknowledges the role played by off-site providers in meeting demand.¹⁸⁵ In other words, despite the proposed investment in public transport, the PDS/PDSU assumes that the same proportion of the additional 2 mppa will travel by car.
367. NSC and others have criticised various aspects of the PDS/PDSU which fall into the following five broad areas:
- (a) operational utilisation;
 - (b) demand to capacity ratios;
 - (c) the growth in parking provision relative to passenger numbers;
 - (d) PTMS target used in the PDS/PDSU; and
 - (e) inconsistencies between the TAA and PDSU.
368. In terms of operational utilisation (a), NSC argue that the 95% figure used in the PDS is unjustified on the basis that much of the parking could be managed very efficiently due to the high incidence of pre-booked spaces and valet block parking. According to NSC the operational utilisation figure should be much higher at, or around, 100%. In response BAL confirmed that the PDS has not relied upon a 95% operational utilisation figure and this is shown by PDSU Table 6.4 which shows that the car parking at 2030 would operate with less than 0.5% reserve capacity.¹⁸⁶
369. With regards to the demand to capacity ratio (b), NSC argued that the PDS/PDSU calculated future parking capacity by applying an historic demand to occupancy ratio and applying it to the forecast passenger numbers. NSC provided an alternative parking demand figure which was calculated by projecting forward the 2017 demand to capacity ratio figure of 89%.¹⁸⁷ Based on that calculation, NSC contended that there would be an over-provision of some 1,332 parking spaces.
370. However, the PDS does not calculate future parking demand by reference to historical demand to capacity ratios at BA. Instead, as explained in paragraphs 3.16-3.20 of the PDS, only the peak forecast demand is based on the ratio of peak occupancy to total monthly parking demand. This is referred to as the ‘Occupancy to Demand’ ratio in the PDS and it is this which is taken from

¹⁸³ Page 104

¹⁸⁴ The TA/TAA methodology produces 8,821 additional spaces whereas the corresponding figure produced by the PDS/PDSU methodology is 7,350 spaces

¹⁸⁵ See Figure 14

¹⁸⁶ Total capacity of 22,300 v total demand 22,200

¹⁸⁷ Paras 5.3.6-5.3.8 and Appendix A to Mr Colles PoE

historically observed data. The monthly forecast demand for parking is taken from the model.

371. In terms of (c), NSC alleged that the proposed number of parking spaces would increase by 15% more than forecast passenger numbers despite the commitment to promote sustainable transport and increase the PTMS. However, that figure is derived from a somewhat contrived reading of the numbers and ultimately, the only meaningful comparison is to look at the 'with' and 'without development' scenarios.
372. Under the 10 mppa consent BA has planning permission for 18,700 spaces which equates to 1,870 spaces per 1 million passengers. In the 2030 12 mppa scenario the equivalent figures would be 22,200 spaces which equates to 1,850 spaces per 1 million passengers. There would therefore be a small proportional reduction in the number of parking spaces in the 'with development' scenario.
373. NSC's concerns about the PTMS target (d) is essentially that the PDSU uses a figure of 12.5% rather than the more up-to-date 2019 CAA figure of 21.8%. If the latter is used, then the parking requirement would drop from 4,600 spaces to 1,996 spaces. However, the PDS was updated include the 2019 CAA data – this is made clear in paragraph 1.2 of the PDSU. As explained in paragraph 1.3 an uplift of 2.5% PTMS was applied to ensure consistency with the TA. NSC also argued that a PTMS of 29%¹⁸⁸ would obviate the need for any additional parking in the Green Belt. However, a PTMS increase of over 7% is not considered to be realistic.
374. The final criticism relates to alleged inconsistencies between the PDS/PDSU and the TA/TAA (e) and the argument that the former artificially inflates the amount of parking required. As set out elsewhere, the contrasting approach adopted in the PDS and TA in relation to PTMS was reasonable to ensure a robust (worst-case) assessment of the highway impacts and a conservative assessment of parking demand.
375. Based on the foregoing, the Panel is satisfied that the PDS/PDSU provide a robust basis for calculating parking demand at BA. In any event, the criticisms made by NSC and others in relation to the level of parking do not address the proposed monitor and manage approach to the delivery of car parking. This would ensure that the provision of additional capacity aligns with, and does not adversely affect, targets to increase public transport use.

M5 J22 Edithmead Roundabout

376. NH requested a condition which would secure the signalisation of the M5 J22 Edithmead roundabout (J22), a commitment of the adopted Sedgemoor Local Plan.¹⁸⁹ While no detailed assessment of the junction has been carried out, Table 2.1 to BAL's Technical Note 23¹⁹⁰ sets out the number of forecast development trips at J22 in a worst-case scenario. The Note explains that the flows have been agreed with NH.
377. Following an initial review of the suggested conditions, the Panel raised a number of concerns regarding the evidence submitted by both NH and BAL to

¹⁸⁸ A sensitivity test in the PDSU

¹⁸⁹ Sedgemoor is the neighbouring planning authority

¹⁹⁰ INQ/046

- support the condition and to demonstrate compliance with the relevant tests.¹⁹¹ Although there are existing capacity issues at the junction, it is a long-established principle that developers should only be expected to mitigate the specific impact of their own development rather than to resolve pre-existing capacity/safety issues.
378. During the Inquiry a SoCG between BAL and NH was submitted.¹⁹² This contains agreement that improvements to J22 are necessary beyond a passenger throughput of 11 mppa to make the proposed development acceptable in highways and transport terms. It goes on to identify that an improvement scheme for the junction has already been identified as part of a bid from NSC/Somerset County Council (SCC) to the A38 Major Road Network investment programme¹⁹³.
379. In response to the SoCG, the Panel requested further information from NH on 31 August 2021 regarding the specific impact of the appeal proposal on the performance of the junction. In response, some additional high-level information was provided by NH.¹⁹⁴ However, this largely repeated the information contained in the SoCG and Technical Note and did not provide any level of detail. The Panel provided further comments on 9 September when again concerns were raised with the level of supporting evidence provided by NH. A second response was received¹⁹⁵, in addition to a separate response from SCC Highways.¹⁹⁶
380. In these various documents, NH's position is essentially that there is existing congestion at J22 particularly in the PM peak hour when queuing can extend back along the northbound off-slip. As a result, NH argues that any development which has an impact of more than 30 vehicles on this approach to the roundabout must deliver a comprehensive improvement to the roundabout¹⁹⁷ or an alternative scheme that delivers an 'equivalent level of mitigation'. The Panel remains concerned about the need for improvements for the following reasons.
381. First, no evidence has been produced to support the 30-trip threshold which, using by NH's wording, is based on little more than pragmatism. It is possible that the figure has been derived from the DfT's Guidance on Transport Assessment, paragraph 2.11 of which makes clear that 30 two-way peak hour vehicle trips, is not indicative of any adverse impact, rather it is merely suggested as a useful point of reference from which to commence discussions.
382. Second, as set out in Technical Note 23, there would be relatively few trips arising from the development using J22 (25/36 movements in the AM/PM peak respectively on the northbound off-slip). NH accept that there would be 'no perceptible impact' below the 30-trip threshold. Accordingly, it is difficult to understand how the impact of development traffic goes from '*imperceptible*' to '*severe*' in the space of six trips, or one every 10 minutes. This matter was raised with NH at the inquiry but the responses were equivocal.

¹⁹¹ See NPPF paragraph 56

¹⁹² INQ/045

¹⁹³ SCC Drawing Number MJ004051-ED-HW-GA-0001, June 2021. See Page 16 of SoCG

¹⁹⁴ INQ/053

¹⁹⁵ INQ/084

¹⁹⁶ INQ/082

¹⁹⁷ Costed roughly as between £6-7m

383. Third, while it is possible that the agreed movements would result in an adverse impact at J22, without any detailed analysis or basic modelling of the with/without development scenarios, it is simply not possible to determine what the level of that impact would be. At present the only information is the total number of development trips going through the junction. That is a crude measure which reveals nothing about the effect of development traffic would have on queuing and delay at J22.
384. Fourth, from the additional information provided by NH, it is known that there are already significant flows on the M5 arm of Edithmead roundabout. The 2018 Traffic Survey Report¹⁹⁸ records 1,355 vehicles on the M5 arm of the roundabout. The Sedgemoor TA¹⁹⁹ contains a figure of 2,144 vehicles in the 2017 base scenario. Against these figures, the agreed number of development trips would represent 2.6% or 1.7% of existing PM peak-hour flows. As agreed by NH at the Inquiry, that is likely to fall within daily traffic variations at J22. Such a small level of impact cannot reasonably be described as material let alone severe.
385. Fifth, in safety terms, NH state that queuing traffic can extend back along the northbound off-slip with the Traffic Survey Report identifying that rolling queues extend as far back as 300m from the roundabout.²⁰⁰ However, there is no evidence that queues extend back onto the mainline carriageway. While not ideal, slip-road queuing especially in peak hours, is a fairly common feature of the motorway network which does not necessarily lead to a safety problem in practice especially when there are existing mitigation measures available such as warning signage. There is no evidence to demonstrate that slip-road queuing on the Strategic Road Network causes a safety problem at this specific location.
386. Sixth, in terms of the identified improvement, no modelling of the scheme has been carried out despite the Panel's requests for substantial evidence to support the condition. Nonetheless, it seems likely that full signalisation of the roundabout would reduce queuing on the M5 approach which is unsurprising given that the scheme was designed to accommodate all development plan growth in Sedgemoor which equates to an increase in traffic on the Strategic Road Network of some 15% up to 2032.²⁰¹
387. NH accept that a smaller scheme comprising a free-flow left turn lane at the roundabout would also remove or reduce queuing on the northbound off-slip. Despite that, there was no convincing explanation why NH pursued the full signalisation scheme in preference to a more proportionate left-turn lane option.
388. The problem with either the scheme sought by NH or a hypothetical left turn lane scheme is that they would be designed to deal with existing congestion and planned growth in Sedgemoor up to 2032. Accordingly, it would be unreasonable to expect BAL to fund or deliver these improvements in their

¹⁹⁸ Highways England Spatial Planning Framework (South-West) Traffic Survey Report – M5 J22 J23 Transport Model, Appendix A to INQ/084

¹⁹⁹ Table 5 Sedgemoor District Council Local Plan – Strategic Road Network Traffic Assessment, Appendix C to INQ/084

²⁰⁰ The slip road is over 500m long

²⁰¹ According to SCC's response the junction is expected to accommodate an increase of 20-25%, or around 900 additional vehicles in 2036.

entirety, bearing in mind the limited number of forecast development trips. Such an approach would not meet the tests for conditions.

389. The correct approach would be to first establish the specific impact of the development on the junction. If following that exercise an unacceptable impact can be demonstrated, a proportional contribution or improvement scheme that mitigates that impact should be sought. Such an approach would be more akin with that set out by NH in its Isleport Lane consultation response²⁰² which stated that where mainline queuing can be demonstrated "*proportionate developer contributions/CIL should be sought towards the [improvement] scheme from developments which impact at the junction.*"
390. Seventh, NH has referred to its position in relation to the Isleport Lane application where it took a similar stance in relation to improvements to the Edithmead roundabout. However, it is important to note that Officers at Sedgemoor rejected NH's approach. Their concerns were set out on pages 16-17 of the Committee Report, and covered the unreasonable approach of one development being expected to remedy existing problems, the lack of detailed costing, and the possibility of external funding.
391. The Panel shares these concerns in relation to the appeal scheme. Even if NH had demonstrated either a severe impact on congestion and queuing or an unacceptable impact on highway safety, the requirement on this proposal to signalise the junction, or an equivalent scheme, is disproportionate. (It was suggested by NH that Sedgemoor Council received a legal opinion which supported NH's approach, but this has not been submitted and our assessment has been made on the basis of the information available to us).
392. Overall NH has failed to demonstrate that the condition is necessary to make the development acceptable, relevant or proportional to the proposed development. The condition does not therefore meet the tests for conditions contained in the NPPF.

Conclusions on Surface Access

393. The Panel conclude that the development would not give rise to an unacceptable effect on highway safety nor any severe residual cumulative impacts on the road network.
394. While there would be some small adverse effects in terms of increased traffic in some locations, there would also be a number of benefits including an improvement to public transport in the area as well as pedestrian and cycle improvements along the A38. The Panel is satisfied that the PTMS mode share target to be secured through the ASAS strikes the right balance between ambition and realism.
395. Finally, the Panel is satisfied that the assessment of parking demand in the PDS and PDSU is sufficiently robust and justifies the proposed increase in car parking.
396. There is therefore no conflict with CS Policies CS1, CS10 and CS23, DM Policies DM20, DM24, DM26, DM27, DM30, and DM50 the Joint Local Transport Plan 4 2020-2036 or the NPPF. There would also be no conflict with the APF,

²⁰² Sedgemoor Council ref: 11/19/00003

MBU and the AS, insofar as they relate to surface access matters. Overall highway issues are neutral considerations in the planning balance.

Green Belt

397. The Government attaches great importance to Green Belts. The fundamental aim is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. Openness has both a visual and spatial element.

Inappropriateness

398. RfR4 states that the proposed all year-round use of Cogloop 1 and the creation of Cogloop 2 would constitute inappropriate development for which no very special circumstances have been demonstrated. It was common ground between the parties that these elements of the scheme would be inappropriate in a Green Belt location, giving rise to harm by definition, which carries substantial weight as a matter of established national and adopted local planning policy. However, the level of effect on openness and purposes is in dispute.

399. There was some discussion at the Inquiry in relating to taxiway widening and fillets and the A38 highway improvements. However, NSC did not pursue these points and thus it has not been considered further by the Panel as these works are deemed to be not inappropriate.

Openness

400. The PPG²⁰³ outlines several factors which might be relevant when considering the potential impact of development on the openness of the Green Belt. These include spatial and visual aspects, the duration of the development and its remediability and the degree of activity likely to be generated.

401. There can be no doubt that the car parking proposals with a total parking provision of around 6,350 cars, would cause harm to the visual and spatial dimensions of openness. Section 4 of the Green Belt Assessment (GBA)²⁰⁴ sets out BAL's position on openness. It assessed the impact of proposed all year-round use of Cogloop 1 and the creation of Cogloop 2 separately. In relation to Cogloop 1 it notes that it is already enclosed to the east and part of the northern boundary by existing planting and a planted earth bund approximately 2m high along the western and southern boundary.

402. As the Panel saw on various site visits, the existing boundary landscaping and bunding provides an effective visual screen restricting views of the car park from the wider Green Belt and the AONB. As part of the proposal the temporary lighting columns would be removed and replaced with permanent columns of a similar design to those in the permanent Silver Zone parking area to the east.

403. The Cogloop 1 site is 7.8ha and is currently used as a car park for six months of the year, which would be increased to year round usage. As a result, there would inevitably be an increased spatial effect during the winter months from the parked cars and lighting columns. In visual terms, Cogloop 1

²⁰³ Paragraph: 001 Reference ID: 64-001- 20190722

²⁰⁴ Appendix A to Mr Melling's PoE

- benefits from extensive landscape mitigation which effectively screens it from public views. Accordingly, the Panel considers that there would be limited harm to openness from the Cogloop 1 proposals.
404. The Cogloop 2 site is an open field of around 5.1ha, located to the south of Cogloop 1. It is enclosed on its northern boundary by the landscaped bund referred to above. The other boundaries are delineated by established hedgerows and trees. Part of the eastern boundary abuts the permanent Silver Zone car park. The site does not contain any notable landscape features, but it forms part of the wider rural environs and can be described as ordinary but attractive countryside. It contributes to the open, rural setting to the south of BA.
405. The use of the Cogloop 2 site as a car park would inevitably erode its currently open character. Accordingly, there would be a material impact on the spatial dimension of openness as a result of the car park surfacing, associated lighting, fencing, other security infrastructure, and vehicular parking and movements to/from the car park. Year round use of this area is also proposed.
406. The GBA contains a plan showing the Zone of Theoretical Visibility²⁰⁵ (ZTV) which assists when assessing the impact on visual openness. In addition, a number of visual receptor points were identified including Highfield, Springfields and Goblin Coombe Farm, Winters Lane, public rights of way west and north of Redhill, the properties around Hailstones Farm and the A38 and users of open access land and public rights of way within the AONB.
407. The GBA demonstrates that the effects on the identified visual receptors at local and more distant locations would be minimal and it is recognised that the site has a very high degree of containment. The Panel are satisfied that only glimpsed views of Cogloop 2 would be experienced from the right-angle bend on Winters Lane.
408. The mitigation proposals²⁰⁶ would see the existing boundary landscaping strengthened through the creation of perimeter bunding to the southern and western boundary similar to that currently in place along the southern boundary of Cogloop 1. Once established, the bunds could be expected to screen Cogloop 2 from public view.
409. The landscape mitigation, in addition to a lighting strategy, would ensure that any night-time effects would be minor. Even in those long-distance views where the lights might be visible, they would be seen against the general backdrop of the airport, and its associated lighting, to the north.
410. NSC argued that the bunds themselves would harm the openness of the Green Belt. The bunds would undoubtedly have an adverse spatial effect. There would also be a visual effect from Winters Lane post-construction, however this would soften over time as the landscaping matures. After a few years, the bunds would become reasonably assimilated into the landscape and would reduce in their visual effect.
411. In summary, the proposals would have an effect upon spatial openness. The low-rise nature of the development and the proximity to the airport and

²⁰⁵ Appendix 4

²⁰⁶ CD: 1.31

existing areas of car parking means there would be an initial moderate effect on visual openness following the creation of Cogloop 2 which would reduce over time. The overall effect on openness would therefore be moderate.

Purposes

412. The NPPF sets out five purposes served by the designation of Green Belt land:

- 1) To check the unrestricted sprawl of large built-up areas;
- 2) To prevent neighbouring towns merging into one another;
- 3) To assist in safeguarding the countryside from encroachment;
- 4) To preserve the setting and special character of historic towns; and
- 5) To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.²⁰⁷

413. As the proposed car parks are not adjacent to a large built-up area or town, the development would not harm Green Belt purposes 1), 2) or 4). It is also agreed that purpose 5) is not relevant in this case. Given its existing use, the all-year round use of Cogloop 1 would not offend purpose 3) to any significant extent.

414. As the GBA notes that parcel S2, within which Cogloop 2 would be situated, is *"part of the wider Green Belt in this location, helps to maintain openness through preventing incremental development which can erode that quality."* Consequently, the Panel is satisfied that the land makes a positive contribution to purpose 3.

415. It is recognised that the site is visually contained, would include landscaping mitigation and would be bounded to the north by existing airport car parks. However, the creation of Cogloop 2 would encroach into an area that is predominantly open and in doing so there would inevitably be harm caused to this purpose as a result of the scale of development proposed. Accordingly, the proposal, even with mitigation, would encroach into the countryside contrary to purpose 3.

Conclusions on Green Belt Harm

416. The Panel finds that Cogloop 2 would cause moderate harm to the openness of the Green Belt and harm to Green Belt purpose 3). The year round use of Cogloop 1 would cause limited harm to openness and Green Belt purpose 3). Collectively, these Green Belt harms must carry substantial weight in the overall Green Belt balance in accordance with NPPF paragraph 148.

417. DMP Policy DM12 and the NPPF states that inappropriate development is, by definition, harmful to the Green Belt and will not be approved except in very special circumstances. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the development, is clearly outweighed by other considerations. That balancing exercise is undertaken later in this Report.

²⁰⁷ Para 138

Other Considerations related to the Green Belt

418. BAL put forward three 'other considerations' which, it is argued, amount to the very special circumstances necessary to allow inappropriate development in the Green Belt.
419. The first is the need for additional car parking in the Green Belt. This matter has been dealt with under the Surface Access section of this decision. It is not necessary to set out the Panel's findings again here, save for the conclusion that BAL's assessment of parking demand contained in the PDS/PDSU is sufficiently robust and justifies the proposed increase in car parking. Thus, the Panel accepts that there is a need for the additional parking proposed.
420. The second and perhaps the most contentious 'other consideration' advanced by BAL is that there are no alternative sites for car parking outside the Green Belt. Although the Officer's Report concluded that there are no suitable and available sites outside the Green Belt, various parties at the Inquiry put forward what they saw as alternatives to the Silver Zone car park extension.
421. Before dealing with these, it is worth setting out the general approach in the PS which examined the various options for providing the additional parking identified in the PDS/PDSU. When assessing the alternative options for providing the additional 4,200 spaces, Section 5 of the Strategy adopts the following sequential approach:
- Sites within the GBI;
 - Strategic park and ride locations remote from the airport including land outside the Green Belt;
 - Sites within the airport site but outside the GBI;
 - Sites in Green Belt locations contiguous to the airport site.
422. Various schemes were assessed under each of the four options. Many were discounted because they would be unable to provide the quantum of parking required. Section 6 of the PS sets out the preferred approach based on the analysis in Section 5. This is as follows:
- Further MSCP provision to the northside of the airport, in the Green Belt inset providing circa 2,150 spaces;
 - The year-round use of the existing seasonal Silver Zone car park extension which has an existing capacity of 3,650 spaces;
 - A further extension to the Silver Zone car park located to the south of the existing seasonal Silver Zone car park extension, providing circa 2,700 spaces.
423. According to the PS, the above "*maximises development in the GBI and makes the best use of existing facilities whilst ensuring that passenger demand is met as part of a holistic approach to sustainable travel.*" Although the preferred strategy provides more than 4,200 spaces, it is argued that the additional capacity is necessary to provide flexibility during the construction phase. The over-provision would also have the benefit of drawing parking away from unauthorised locations which, as the Inquiry heard, is a significant

concern for local residents. While a number of the alternative options were advanced at the Inquiry by several of the Rule 6 parties, no alternative assessment has been carried out to indicate that BAL's assessment is not robust.

424. SPLS represented the promoter of a park and ride site known as Heathfield Park. That application was refused by NSC during the course of the Inquiry and is not therefore an available alternative site. No available off-site locations have been cited by SPLS which could, either individually or collectively, accommodate the quantum of additional parking demonstrated through the PDS/PDSU.
425. SPLS' core argument was that BAL's assessment of viable alternatives has failed to take account of the role that off-site providers could play in addressing the demand. However, BAL did look at strategic park and ride locations as part of its PS.²⁰⁸ As part of that exercise 12 sites were shortlisted but none were deemed to be realistically achievable at 12 mppa and hence were not taken forward in the PS. There is nothing to disprove that conclusion.
426. While there was no detailed assessment of off-site parking operators, it would have been nearly impossible for BAL to undertake such an assessment, given the transient and oftentimes unofficial nature of off-site providers.
427. Ultimately, if suitable off-site park and ride or parking facilities were to come forward at a future date, there is no reason why these could not be assimilated with the PS provided they were able to align with the ASAS.
428. BALPA also raised concerns, focussed on the location of staff parking at BA. However, the staff parking was relocated to the south side of the airport under a previous permission and the appeal proposal does not propose to change the current arrangement.
429. An alternative strategy was put forward by BALPA which would involve relocating the staff parking back to the north side of the airport thus releasing land in the Silver Zone car park that could be used more intensively for low-cost block parking. This scheme would transfer parking from one location to another and would generate in the region of 400 additional spaces. It would not require planning permission to implement it. However, it is acknowledged that this would make only a small contribution to the amount of additional parking required.
430. The final 'alternative', introduced primarily by XR Elders, was the potential use of decked parking within the GBI. An initial point is that the GBI is already a highly built-up area and that planning permission has already been granted for the PTI and MSCP 2²⁰⁹ which would further add to the density of built development. As part of the current appeal a third MSCP would be constructed as well as the former compound area close to the emergency access from Downside Road.²¹⁰ As such BAL has made a clear effort to maximise parking in the GBI.
431. The PS considered that any additional decked or multi-storey car parking would likely result in significant visual impacts on residential receptors along

²⁰⁸ CD: 2.12 section 5.4

²⁰⁹ To be delivered in Phase 1

²¹⁰ This may well be the area of 'open land' Mr Gurtler observed from his hotel window

Downside Road and the overdevelopment of the northside of the airport.²¹¹ Dealing specifically with the issue of decked parking on the north side of the airport, comparative ZTVs were produced demonstrating the difference between decked parking and the Silver Zone car park extension on the south side of the airport.

432. However, the Panel shares the concerns raised by XR Elders regarding the appropriateness of these comparisons given that the ZTV assumed a height of 8.8m, which is well above the typical height of an additional deck. The Panel undertook a site visit to look specifically at the issue of visibility. On the basis of those observations, we are satisfied that decked parking of the kind advocated by XR Elders would have very a limited visual effect on those receptors along Downside Road.
433. In terms of overdevelopment, no party has produced a drawing of what the decked parking option might look like or the number of additional spaces it might yield. It is therefore difficult for the Panel to come to an informed view on this matter. Clearly the introduction of a second deck is going to add to the already built-up nature of the north-side. The evidence is unclear whether that would be unacceptable in design terms.
434. Those advocating decked parking as an alternative to the extension of the Silver Zone car park have not carried out an assessment to demonstrate that it would be a viable alternative. Equally BAL has put forward the argument that there are no alternative sites for parking outside the Green Belt and the decked parking option was only considered by them to a limited extent. The only analysis is that contained within section 5.3 of the PS which found that further additional multi-storey and/or decked car parking would only provide an additional 950 spaces.²¹²
435. It is noted that the 950 figure is based on an additional MSCP and/or decked parking. On that basis it seems that 950 would be the maximum number of spaces that could be provided and a decked parking scheme on its own would yield fewer spaces given the need for additional circulatory space.
436. Clearly that number must be seen in the context of the 2,700 spaces that would be provided in the Silver Zone car park extension, and it seems doubtful that decked parking could provide the numbers of additional spaces that would remove the need for additional Green Belt parking. However, the Panel consider that it might be possible to provide some decked parking which could curtail the size of the Silver Zone car park extension, and this matter was not explored in detail by BAL.
437. Irrespective of the contribution that decked parking could play, BAL stated that this would not meet the need for low-cost parking. Although no costings or viability evidence is before the Panel, it is accepted that the cost of providing a MSCP or decked parking would be considerably more than the proposed surfaced level car parking. That then raises doubts as to whether the additional spaces created by any potential decked scheme would be offered as low-cost parking. There was discussion about possible subsidy from the airport's other operations, but it is not clear why a private body such as BAL would wish to do that. In any case, there has been no significant challenge to

²¹¹ See Appendix A to Mr Mellings Rebuttal PoE

²¹² Option B

the conclusions of the PDS/PDSU that there is, and will continue to be, significant demand for low-cost parking.

438. Overall, the Panel has concerns with elements of BAL's reasoning for rejecting decked parking in the GBI. There is also the possibility that the BALPA's proposal could also contribute to a limited degree. This diminishes the arguments put by BAL for this as an 'other consideration' to some extent. However, it is clear that these options, even if taken together, would not meet the full need for low-cost parking in the Silver Zone car park and no realistic offsite alternatives have been put forward.

439. The third and final 'other consideration' is the need for, and benefits of, the growth of BA. The need has been largely dealt with under the forecasting section of this decision and the Panel are satisfied that there is a demonstrable need and demand for the proposed development. The socio-economic benefits are considered below.

Other Matters

Socio-Economics

Overview

440. In light of national, regional and local policy there is a planning policy imperative to support airport growth in economic terms.

BAL's Assessment

441. BAL's assessment of the socio-economic benefits is contained within Chapter 7 of the ES which includes an EIR²¹³ and EIR Addendum.²¹⁴ These forecasts assess the quantitative and qualitative economic effects of the proposal against a 2018 baseline and set out the direct, indirect, induced and catalytic economic operational effects on jobs and Gross Value Added (GVA) and the transitory effects during construction.

442. The EIR Addendum concludes that the appeal proposal would bring significant additional economic benefits including:

- North Somerset – the economic footprint of the airport will be around £50 million larger in GVA terms and support around 530 additional jobs (430 FTEs). When wider benefits are also included this would increase to £70 million larger in GVA terms and support around 710 additional jobs (570 FTEs);
- West of England - the economic footprint of the airport will be around £100 million larger in GVA terms and support around 1,220 additional jobs (1,040 FTEs). When wider benefits are also included this would increase to £220 million larger in GVA terms and support around 2,460 additional jobs (2040 FTEs);
- South West & South Wales - the economic footprint of the airport will be around £150 million larger in GVA terms and support around 2,120 additional jobs (1,750 FTEs). When wider benefits are also included this

²¹³ CD: 2.08

²¹⁴ CD: 2.22

would increase to £430 million larger in GVA terms and support around 5,560 additional jobs (4,470 FTEs).²¹⁵

443. Based on the above, the impact of the proposed development in terms of employment and GVA is assessed as 'major' and 'beneficial' in EIA terms. Sensitivity testing has shown that the reported economic benefits would be delivered irrespective of the exact year the airport reaches 12 mppa.
444. At both the planning and appeal stages, one of the main challenges to the EIR/EIR Addendum has been the suggestion that BAL has overstated the scale of benefits associated with the scheme.
445. A central theme of NSC's case at the Inquiry was that the economic benefits of the development have been significantly over-stated and there would not be "significant" economic benefits as claimed. To support that argument, it raised four main concerns which are dealt with below.

Business Travel Growth

446. NSC allege that BAL has significantly over-estimated the benefits which are likely to arise in relation to business travel. The case being put by NSC and others is essentially that business travel is unlikely to grow at 3% per annum as indicated in the FR²¹⁶ due to attitudinal and technological changes. In response BAL pointed out that productivity benefits reflected in the forecasts do not assume an overall growth in the percentage of business passengers but rather assume that the current proportion of business traffic would be maintained.
447. The robustness of BAL's forecasts and the DfT elasticities on which the econometric modelling is predicated has been addressed earlier in this decision and it is not necessary to repeat those comments again here. The Panel is satisfied that the BAL's forecasts are fit for purpose.
448. While it is possible that business passenger growth might be less than BAL's forecasts, that does not make BAL's position unreasonable. Even if BAL has overstated the likely growth in business travel, that simply means the socio-economic benefits would be slightly less than those reported in the ES.

Displacement

449. Displacement is a concept that assumes that economic activity in one place takes it away from another location. For example, if economic activity or expansion does not happen at BA, it will happen elsewhere such as Cardiff Airport. According to BAL, considerations of displacement are primarily related to public sector spending decisions.
450. BAL's assessment of displacement is based upon outputs from the Logit Model which determines the likelihood of an individual using one airport over another, or not flying at all, based on a range of factors including generalised cost (cost plus time taken to access each airport), airfare, frequency and destinations served. NSC's concerns about the Logit model have been addressed elsewhere in this report and it is not necessary to repeat this. The Panel is satisfied that the Logit model provides a robust basis for understanding the displacement effects of the proposed development.

²¹⁵ Table 3.4

²¹⁶ CD: 2.21

451. The EIR Addendum²¹⁷ contains an assessment of the displacement effects which vary depending on the area assessed. NSC produced their own report titled 'Bristol Airport Traffic Displacement Estimation in January 2020'.²¹⁸ While there are some small differences between BAL's forecast of displacement to other airports in the South West and South Wales²¹⁹ both assessments generally support the qualitative view expressed in the original EIR that the impact of displacement would be limited.
452. At the Inquiry NSC accepted that there is not a standardised approach to assessing the effects of displacement and there are inherent uncertainties associated with any assessment. It went on to raise concerns about the Logit model used in BAL's forecasts which have already been addressed under the Need and Forecasting section of this decision.
453. On a wider note, the Panel has some concerns with NSC's approach to displacement. At times during the Inquiry, NSC seemed to be almost advancing a case that economic development, including jobs for the residents of North Somerset, should be provided in other parts of the country, most notably at Cardiff Airport. That is an unusual position for a local authority to take because one of the primary objectives of the CS is to support and promote major employers such as BA.
454. Regarding the objection by the Welsh Government, there is no evidence to suggest that the development would have a significant adverse impact on Cardiff Airport or on Wales. The airports have different offers with BA already having a broader range of routes than Cardiff. There is no policy support in Build Back Better or anywhere else which favours the expansion of Cardiff Airport over Bristol. In any event, BA and Cardiff Airport are both located in the same 'level 2' priority areas for the purposes of 'levelling up' which does not support the argument that Cardiff is in an area of greater need.
455. NSC's submissions are also undermined by their acceptance that the economic benefits of any scheme could be reduced to the argument if it did not occur here then it would happen somewhere else. Moreover, there is no adequate explanation why NSC's approach to displacement in this case contrast with that taken in relation to other schemes in its area such as the J21 Enterprise Area. If NSC's approach were to be adopted more widely then very little economic development could ever take place outside the most deprived parts of the country. That is clearly not what is provided for in Build Back Better and the Government's levelling up agenda.

Outbound Tourism

456. NSC allege that BAL has failed to take account of the negative economic effect of outbound tourism.²²⁰ However, paragraphs 3.45-3.63 of the EIR Addendum specifically deal with the matter and explain that the offsetting effect of outbound tourism in the original EIR "*recognised that the use of Bristol Airport by UK resident outbound travellers for leisure flying was likely to have some negative impact on economic activity in the study areas considered but that for a number of reasons this was unlikely to be material.*"

²¹⁷ See paragraphs 3.26-3.34

²¹⁸ INQ/090

²¹⁹ According to BAL 28% of passengers in 2030 would be displaced to Cardiff, Exeter, Newquay and Bournemouth airports if capacity was capped at 10mppa. NSC estimate it would be 36%.

²²⁰ Calculated as £123m per annum

457. BAL point out that outbound tourism has well established social and welfare benefits which are recognised by national aviation policy. At paragraph 1.16 the APF states *"the evidence available to us does not show that a decrease in the number of UK residents flying abroad for their holidays would have an overall benefit for the UK economy."* It goes on to say *"The Government believes that the chance to fly abroad also offers quality of life benefits including educational and skills development. Overall, the Government believes continuing to make UK tourism more attractive is a better approach both for residents and attracting new visitors."*
458. There have been no subsequent national policy statements and the above still represents the Government's position on outbound tourism. Accordingly, while there may well be some negative economic effects arising from an increase in outbound tourism, the Panel considers that this should be weighed against the social benefits of foreign travel.
459. Moreover, given that there is a demonstrable demand, then restricting BA to 10 mppa could simply result in passengers relocating to the next nearest airport meaning that the loss of consumer expenditure in the domestic economy from these outbound travellers would occur with or without expansion at BA.
460. For these reasons, the Panel is satisfied that when considered in the round, the effects of outbound tourism are unlikely to be significant.

Cost Benefit Analysis

461. NSC and others raised a number of concerns related to the Cost Benefit Analysis (CBA) contained in the EIR. However, it is important to recognise that the CBA was not used to inform the assessment of significance in the ES or ES Addendum.
462. Section 4 of the EIR Addendum included an updated CBA which, unlike the original assessment, included carbon costs. It concluded that the scheme would deliver net benefits of between £820 million and £863 million over the next 60 years, depending on whether offsetting of carbon emissions is included or not.
463. That assessment was not intended to be a WebTAG appraisal, and it remains BAL's case that it is not appropriate to include carbon values in the socio-economic CBA for the reasons set out in paragraphs 4.7-4.11 of the EIR Addendum. Having considered these submissions the Panel considers that the inclusion of carbon values in the CBA would result in an element of double counting. Moreover, as concluded elsewhere in this decision, the issue of carbon emissions is a matter to be dealt with at the national level.
464. It is notable that, following publication of the latest carbon values by the Department for Business, Energy and Industrial Affairs, BAL revisited the earlier assessments.²²¹ These concluded that there was still a strong net-positive benefit from the proposed development of between £502 million without offsetting and £600 million with offsetting.²²²

²²¹ INQ/054

²²² INQ/074 Section 3

465. At the Inquiry a number of parties argued that BAL should have carried out a Greenbook or WebTAG assessment. However, as the relevant guidance²²³ makes clear, the role of WebTAG is to appraise “*government interventions in the aviation industry*” with “*the main user of this guidance...expected to be DfT itself.*” The proposed development is a private sector investment and not a government policy intervention. The Panel is not aware that any of the other recent airport expansion schemes undertook a WebTAG assessment. Accordingly, the absence of a WebTAG assessment does not weigh significantly against the development.
466. In the Panel’s judgement, the CBA carried out by BAL is sufficiently robust to enable the broader socio-economic effects of the development to be understood.

Conclusions on Socio-Economics

467. The development would deliver substantial social and economic benefits, supporting national, regional and sub-regional economic growth and would conform with the Government’s levelling-up agenda. It would also assist in the recovery from the Covid-19 pandemic and would help to meet the UK’s global ambitions for increased international connectivity and trade following the UK’s departure from the EU.
468. The proposal would contribute substantially to the national policy approach, expressed in section 6 of the NPPF, the APF, the West of England Local Industrial Strategy/Local Enterprise Partnership Strategic Economic Plan, and the CS to promote and support a strong competitive economy and major employers in North Somerset. The Skills and Employment Plan would also ensure that the most deprived communities in the region benefit from development.
469. While some criticisms have been levelled at the EIR, the Panel is satisfied that it is fit for purpose and demonstrates, even taking into account the updated carbon values, that the development would deliver a substantial net-economic benefit for the region.
470. Given the importance attached to these matters in national and local planning policy, the Panel finds that the socio-economic benefits carry substantial weight in the planning balance.

Character and Appearance, including the AONB

471. Chapter 9 of the ES²²⁴ considers the effects of the development on landscape and visual amenity based on the findings of a Landscape and Visual Impact Assessment (LVIA) undertaken in accordance with a methodology agreed with NSC at the scoping stage. The LVIA concluded that the appeal scheme would only result in negligible impacts on the AONB on the basis that there is very little intervisibility between the AONB and BA, and that only a small proportion of flight paths are or would be routed over the AONB.²²⁵
472. While the landscape impact of the proposed development did not form part of the RfRs, it was an issue raised by NSC, Natural England and the AONB

²²³ CD: 11.5 Paras 1.1.1-1.1.3

²²⁴ CD: 2.05.21

²²⁵ See table 1 to Mr Furber PoE

Partnership at the application stage. The matters raised at that time were dealt with through BAL's Regulation 25 responses.²²⁶ The Committee Report²²⁷ considered the impacts of the scheme upon tranquillity, lighting, landscape character and setting, concluding that there would be no significant effects on the AONB.

473. As part of the appeal, XR Elders raised a number of concerns related to the visual impact of the scheme on the AONB which was described as significantly adverse.²²⁸ XR Elders also alleged deficiencies with the LVIA namely that it did not follow relevant guidance, was not objective and that it underestimated the adverse effects on the AONB and its setting.
474. In response, BAL submitted further landscape evidence at the appeal stage.²²⁹ That evidence highlights that the LVIA approach was not only agreed with NSC but also the AONB Planning Liaison Officer. Having reviewed the LVIA, the Panel are satisfied that it is compliant with established guidance²³⁰ supplemented by references to the AONB Management Plan and provides an understanding of the special qualities of the AONB within the study area.
475. The evidence of XR Elders does not identify those aspects of the proposed development which would give rise to a significant adverse impact. Evidence in relation to levels of aircraft noise in the AONB, the number of additional vehicles on roads in or close to AONB, the lighting effects associated with the car parking, and their effects on the AONB was very limited. In light of these limitations, the Panel consider that BAL's detailed landscape evidence is to be preferred.
476. As part of our site visit of the wider area, the Panel visited a number of viewpoints on the northern edge of the AONB,²³¹ the nearest part of which is around 3km from BA. Based on our observations we consider that the physical changes proposed to BA as part of the appeal scheme would be imperceptible from the AONB. Accordingly, we find no reason to depart from Natural England's view that the degree of change is unlikely to result in significant impacts on views from the AONB.
477. Existing effects of BA upon the tranquillity of the AONB were also cited and concerns raised that such effects would be increased. The ES and ESA did not present an assessment of noise effects on tranquillity but this was considered in the Regulation 25 responses.²³² This found that the development would have only a marginal effect on noise levels over the AONB²³³ due to the future use of quieter aircraft offsetting in part the increase in ATMs.
478. In light of the distance of the AONB from BA, increases in the amount of vehicular traffic routing through the AONB would be very small²³⁴ and would not be distinguishable from existing traffic. The specific flight paths taken are limited to the northern extent of the AONB. While the Panel has found harm in terms of noise effects in general, in considering the above, we are satisfied that

²²⁶ See CDs: 3.04.06-3.04.08

²²⁷ See pages 112-115

²²⁸ See Ms Beth and Ms Tudor PoE

²²⁹ See Mr Furber Rebuttal PoE and section 5.2 to Mr Melling Rebuttal PoE

²³⁰ CD: 22.4 Guidelines for Landscape and Visual Impact Assessment 3

²³¹ INQ/026-0 points 53-55 on the site visit map

²³² Repeated in paragraph 2.5.6 of Mr Furber PoE

²³³ 1dB LAeq,16h in the context of an absolute noise level in the region of 35 dB LAeq,16h;

²³⁴ Typically, less than 5%

the increase in aircraft and traffic movements would not have a significant effect on the tranquillity of the AONB.

479. Additional lighting would be limited to that associated with the Cogloop parking proposals. When viewed from the south, the area of new lighting would be relatively small and would be seen against the backdrop of the substantial area of lighting at BA. An outline lighting strategy²³⁵ was submitted with the application demonstrating how the scheme could comply with the AONB Position Statement covering Dark Night Skies and Light Pollution.²³⁶ A condition is recommended that would capture the recommendations of that strategy.
480. Based on the foregoing, the Panel is satisfied that the appeal scheme would not result in any significant landscape or visual effects. Consequently, there would be no breach of the duty contained in section 85 of the Countryside and Rights of Way Act 2000 which requires decision makers to have "*regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty.*" Insofar as they relate to the AONB and landscape, the Panel finds no conflict with CS Policies CS1, CS3, CS5, CS6, CS10, CS23 and CS26 or DMP Policies DM10, DM11, DM12, DM24 and DM50.

Biodiversity

481. The proposed development would result in a loss of 3.7 ha of agricultural land to allow the expansion of the Silver Zone car park (Cogloop 2) and a small area (0.16 ha) of woodland edge in order for the A38 improvement works to be delivered.
482. These two areas are outside of, but relatively close to, the North Somerset and Mendip Bats SAC. SAC's are designated for a number of reasons, including the fact that they contain habitats or species that warrant protection. In this case the SAC was designated because of the presence of Lesser and Greater Horseshoe Bats.
483. There is no dispute, based in part on evidence gained from surveys, that the two areas provide foraging land for bats. They are therefore functionally linked to the SAC.
484. The conservation objectives for the SAC include the need for the integrity of the site to be maintained or restored as appropriate, in relation to the habitats of qualifying species. The conservation objectives therefore seek to ensure that habitats for horseshoe bats are maintained, and this applies to habitat used by foraging bats outside the SAC. In particular, the Cogloop 2 site is considered to provide foraging habitat needed to maintain the favourable conservation status of the SAC.
485. In January 2018, NSC adopted the North Somerset and Mendip Bats Special Area of Conservation Guidance on Development: SPD.²³⁷ Amongst other matters, this set up a Bat Consultation Zone.
486. Both areas of land are situated outside the boundary of the SAC, but within the 'consultation zone' (bands B and C). These are defined largely in relation

²³⁵ CD: 2.15.1

²³⁶ CD: 22.1

²³⁷ CD: 5.17

to distance from maternity roosts in the SAC and are indicative of the likely density of the horseshoe species. They reflect the likely importance of the habitat. The Cogloop 2 site is located within band B and the A38 land is within band C. The SPD requires that development proposals within bands B and C meet certain survey requirements and, as greater and lesser horseshoe bats are likely to be affected, there is a requirement that mitigation is secured to avoid adverse effects on the integrity of the SAC. Where existing habitats or features of value to bats cannot be retained as part of the development proposals, the SPD requires the provision of replacement habitat.

487. The effect of the proposal has been assessed in a number of places. Particularly in the ES²³⁸ and in further notes by BAL to NSC.²³⁹ NSC officers carried out an appropriate assessment informed by the information provided by BAL. This matter did not form a reason for refusal. No party opposed to the overall proposal has presented contrary evidence and the only evidence in proofs to the Inquiry was the undisputed Technical Note presented by BAL.²⁴⁰
488. The proposal is to provide land as replacement habitat in exchange for the functionally linked land in bands B and C, thereby avoiding any impact on the SAC itself. This would be a protective mitigation measure which is part of the proposal, intended to avoid or reduce any adverse effects so as to ensure that the project does not adversely affect the integrity of the SAC. This replacement land, which would be controlled by conditions, would be provided in advance of any works being carried out that would affect existing foraging land.
489. The evidence is that there are options for the provision of a larger area of replacement habitat which would fulfil the SPD replacement criteria.²⁴¹ On the basis of the evidence, it is sufficiently certain that the replacement land would make an effective contribution to avoiding harm, guaranteeing beyond reasonable doubt that the project would not adversely affect the integrity of the SAC.
490. Before concluding on this matter, the legal status of the proposed replacement land was raised, most particularly by PCAA (notwithstanding the fact that they did not put forward any evidence on biodiversity). The issue is whether the proposed replacement foraging habitat is 'mitigation' or 'compensation'. The only expert ecological evidence, that presented by BAL, is that the proposed replacement foraging land meets the test for 'mitigation'. This was also the position agreed by NSC officers and Natural England. There is no contrary expert evidence.
491. The argument put by PCAA is that the replacement foraging land is not 'mitigation', but 'compensation'. This is on the basis that it is not intended to avoid or limit harm to an acceptable level, but is intended to replace 'significant' bat habitat, which would be destroyed by the proposal. If that were the case it was argued that planning permission could not be granted. However, the case law cited by PCAA²⁴² related to proposals within European sites – which were therefore directly affected by development. The measures proposed in those cases would replace directly lost habitat and were

²³⁸ CD: 2.0.01 and CD 2.05.27

²³⁹ CD: 3.06.04-06

²⁴⁰ Mr Melling PoE Appendix B

²⁴¹ Mr Melling PoE Appendix B, 1.1.26 onwards

²⁴² Briels and Others (C-521/12, EU:C:2014:330); Grace and Sweetman v An Bord Pleanala (C-164/17)

'compensation'. This is in contrast with the measures currently proposed which are 'mitigation' aimed at reducing or eliminating the effect of the proposal.

492. Overall, the impact on the functionally linked habitat is small in comparison to the overall availability of the functional habitat (as shown in the SPD) and the proposed mitigation would at least counter the impact. The Panel has considered the potential for likely significant effects on the qualifying features of the SAC. Taking account of the potential for adverse effects on integrity and the mitigation proposed, it can be concluded that there would be no adverse effect on the integrity of the SAC.

Health Impact Assessment

493. The ES/ESA provided a HIA which relates to health impacts in the round on the population, including on vulnerable communities. As previously stated, noise effects were factored into this assessment, as were the mitigation proposals. The ES/ESA concluded that, in respect of noise, the effects would not be significant. This was similar for air quality effects. Socio-economic factors were also considered with the HIA, concluding that there would be an overall beneficial impact on population health due to those factors.

494. In specific regard to the HIA, the expert witnesses for NSC raised concern regarding cardiovascular impacts from noise effects and non-threshold effects from air pollutants, as well as general concerns regarding the interrelated/in-combination health effects.

495. The HIA presents a high-level assessment of effects which fed into the Panel's reasoning on health and wellbeing whereby harm has been found in respect of noise, but not in respect of air quality. In both instances, the broad nature of the assessment has not impeded the Panel's ability to form reasoned judgements on affected communities. The HIA did not look at the AGQ as this was published afterwards, but the separate written representations from parties²⁴³ have all been considered in reaching our conclusions on this topic.

496. It should also be noted that the socio-economic benefits have also been fully examined by the Panel and given substantial weight in favour. The conclusions found on all these issues will be factored into the planning balance.

497. The Panel are thus content that the HIA is robust in its general approach. This is in accordance with CS Policy CS26 which requires the submission of a HIA.

Public Sector Equality Duty

498. Section 149 of The Equalities Act 2010 established the Public Sector Equality Duty (PSED) to eliminate discrimination, advance equality of opportunity and foster good relations between persons who share a protected characteristic and persons who do not.

499. Submissions were made by interested parties that the climate change effects of the proposed development would result in disproportionate effects on groups with protected characteristics, including disabled people, and would result in the creation of new disabled people due to the health impacts relating to the

²⁴³ INQ/086, INQ/093, INQ/095-097

growth of respiratory diseases. It was also stated that disabled people would be proportionally less likely to benefit from the airport expansion as statistics were cited to show that they are not frequent flyers.

500. The Panel notes the concerns raised in respect of this matter and accepts that protected groups are likely to be proportionally more disadvantaged by the adverse effects of airport growth than non-protected groups. This would be due to interrelated effects such as access in emergencies, or food and fuel poverty. It is also acknowledged that those with protected characteristics are less likely to benefit from the increased opportunities that airport expansion would offer, including foreign travel.
501. However, Government policy supports the growth of, and making best use of existing airports. As previously discussed, climate change is a serious issue but the aviation emissions arising from this development are not so significant as to have a material impact on the Government's ability to meet its targets and budgets. As an issue which is subject to national targets, the effects of climate change upon protected groups would be subject to equalities impact assessments at the national level when future policy changes or targets are introduced.
502. In addition, the HIA is considered to be robust in presenting a high-level assessment of potential health impacts of the development. The Panel have found no harm in respect of air quality matters.
503. There are also likely to be future measures (through legislation, targets, policy changes and technological advances) which would reduce climate and air emissions in the longer term. The conditions included in this permission also address these matters to the extent that they can in the context of this appeal.
504. Accordingly, and taking a proportionate approach, the Panel consider that equality implications are addressed, insofar as health and air quality are concerned. In respect of climate change, the disproportionate effects would be experienced at a national level and in light of the Panel's findings on this topic, any such implications would be considered broadly as a national matter.

Prematurity

505. NSC state that granting permission would prejudice the formulation of national aviation policy by predetermining issues that are central to it, particularly relating to climate change.
506. As discussed above, national climate change policy is being consulted upon, and future changes have been considered in terms of emissions as well as for other environmental targets. However, the conclusions reached by the Panel are set against current relevant policy.
507. In terms of aviation policy, the Government is clear that this is to be given full weight and that decisions should be made taking account of all relevant considerations (including economic and environmental impacts). Accordingly, there is no justification to withhold consent based on prematurity or adopting a precautionary position and dismissing the appeal on this basis.
508. In addition, much local concern was raised regarding a lack of a specific Development Plan Document for BA. The publication, consultation and adoption of any such future document would represent a positive step,

particularly as part of a plan-led system, and would assist in community relations. However, the absence of such a document at this stage does not preclude expansion plans which have been considered against the relevant existing development plan policies.

Expansion at other Airports

509. A number of other airports have recently secured approval or been the subject of a resolution to grant planning permission for expansion. This includes an appeal allowed at Stansted²⁴⁴ and more recently, the Council resolving to approve the expansion of Luton Airport,²⁴⁵ subject to conditions and a legal agreement. The Panel understands that the decision to expand Southampton Airport is subject to judicial review and that the Secretary of State has called-in an application at Leeds Bradford airport.
510. The Panel are aware of such schemes, and indeed have made reference to the Stansted decision and the legal challenge at Southampton. This addresses specific issues raised by parties, as well as dealing with cumulative impacts of airport expansion in the climate change section. However, it is important to note that each decision is taken on its own merits. These decisions/resolutions have not been relied upon in any significant way, nor have they influenced the overall outcome. We have reached our own conclusions based upon the detailed and extensive evidence before us.

'Salami Slicing'

511. A recurring objection to the appeal scheme has been the belief by some that BAL has deliberately chosen to submit multiple planning applications for incremental growth at BA rather than a single application for an increase to 20 mppa which is said to be the long-term aspiration. This tactic was referred to several times as 'salami-slicing' and has the alleged benefit of downplaying the environmental impact of growth at BA.
512. However, the EIA Regulations require applicants to carry out cumulative and in-combination assessments as part of the ES. There has been no suggestion that BAL's assessments in this regard were flawed. BAL's aspiration to grow beyond 12 mppa is not currently subject to published plans, local plan allocations or any other details that could reasonably be considered at this stage.
513. The planning system does not prevent applicants from applying for phased growth and planning applications must be decided on their merits. Furthermore, a decision on one planning application does not pre-determine the outcome of future planning applications.
514. Finally, as evidenced by the approach to other airport expansion schemes,²⁴⁶ there is a commercial reality to the argument that airports will tend to grow incrementally as opposed to taking the risk associated with a larger expansion scheme.

²⁴⁴ CD: 6.13 and INQ/094

²⁴⁵ Consultation responses on this are contained at INQ/131-134.

²⁴⁶ Stanstead, Luton and Leeds/Bradford

Conditions

515. The NPPF states that local planning authorities should consider whether otherwise unacceptable development could be made acceptable through the use of conditions or planning obligations. Planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition. Paragraph 56 states that planning conditions should be kept to a minimum and only imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects.
516. Discussions between the main parties took place throughout the Inquiry with the aim of agreeing a list of conditions. The Panel sought to aid those discussions by setting out its provisional thoughts in relation to some of the areas of disagreement. Rule 6 parties also provided comments at various points. While the majority of conditions were agreed between the main parties, disagreement remained in some areas at the close of the Inquiry and it was disappointing that the Panel were presented with two sets of conditions, one from NSC²⁴⁷ and another from BAL²⁴⁸ particularly given the technical, complex and lengthy nature of these matters.
517. Most of the disagreements have already been dealt with in the main body of this decision and there is no reason to repeat those findings again here. In some instances, the Panel have amended the conditions in the interests of brevity and to ensure compliance with the PPG. Due to the technical nature of the conditions, a list of definitions is provided at the end of the schedule, for clarity.
518. Conditions 1-4 are standard conditions for hybrid planning permissions and are necessary in the interests of certainty, to specify the plans approved and the time limits with which the development must accord. Condition 5 is necessary to clarify the terms of the planning permission and to ensure that the development and associated effects do not exceed those assessed in the ES.
519. Condition 6 is necessary to ensure the additional parking is brought forward in line with demand and does not undermine the agreed PTMS target. The UU²⁴⁹ sets out phasing of the parking and would require BAL to deliver MSCP 2 and the year round use of Cogloop 1 ahead of any extension to the Silver Zone car park. NSC proposed an alternative condition to bring forward MSCP 3 ahead of the Silver Zone extension, but the Panel prefer the flexibility afforded by the 'Monitor and Manage' approach, which would require the Council's approval in stages and which would be evidence based.
520. A Construction Environmental Management Plan (condition 7) is necessary to mitigate the impact of construction activity on local residents and ecology. Condition 8 relates to the AQAP, the need for which has been already discussed. The condition suggested by NSC seeks improvements, however based on our findings, this is not reasonable and as such the Panel have adopted BAL's suggested wording. For similar reasons, we have imposed BAL's

²⁴⁷ INQ/112

²⁴⁸ INQ/114

²⁴⁹ Schedule 1, Part 2, Para 4.

suggested condition requiring the submission and approval of a CCCAP (condition 9).

521. Conditions 10 and 11 are necessary to encourage the decarbonisation of road transport and to assist the move to a low carbon future. Conditions 12-18 covering, amongst other things, slot coordination, ATM limits, noise contours and night-time flying are discussed in more detail in the Noise section of this decision but are considered necessary to protect the living conditions of local residents. In respect of the ATM cap, for reasons discussed, this has been imposed, however the condition has been simplified to remove the daily cap. The daily cap would go beyond what is reasonably necessary when imposing an ATM limit and the figures included also appear to conflict with condition 17 restricting overnight ATMs to 4,000.
522. As previously discussed, the continued restriction of the use of APU's at stands 37 and 38 is necessary due to noise effects. This restriction is secured by the existing extant consent. The suggested conditions limiting their use only at nighttime is thus not included and the restriction remains in place. Condition 19 is necessary in the interests of highway safety and capacity. The Panel has however amended the wording to ensure there is sufficient flexibility at the detailed design stage to resolve any outstanding minor design issues.
523. Conditions 20 and 21 are necessary to ensure the satisfactory appearance of the proposed areas of landscaping. Condition 22 is necessary to ensure that any tree loss is minimised. Conditions 23-26 are necessary to mitigate the impact of development on local ecology including protected species. Conditions 27-29 are concerned with contaminated land and are necessary to ensure the land is suitable for its intended use. Conditions 30-34 are necessary in the interests of flood prevention and to ensure the site is drained satisfactorily and sustainably. Conditions 35 and 36 are necessary to ensure the development is constructed to high environmental standards. As condition 36 requires details of the measures to be agreed, the Panel do not consider that a separate condition is necessary (condition 38 on NSC's list).
524. An Annual Monitoring Report under condition 37 is necessary to enable NSC to monitor BA's operational activities. The time period for reporting was disputed between parties with BAL wanting a 5-month period in order to align with their operational reporting requirements. However, a 5-month period is excessive given that the purpose of the monitoring is to inform the delivery of specific obligations and measures and for enforceability. BAL also offered no justification as to why their consultative committee dates cannot be amended to better align with the reporting requirements.
525. Condition 38 is necessary to safeguard the openness of the Green Belt. Condition 39 is necessary to ensure the satisfactory appearance of the terminal extensions. NSC have suggested a condition (No. 43 on their list) which would prohibit BAL from exceeding 10 mppa and bringing any additional car parking into use until the A38 improvements works are completed. However, there is nothing in the wording of condition 19 that would preclude the highway works being delivered at this time provided this was agreed between the parties. The evidence supporting the condition is scant and in particular there is nothing from NSC to challenge the various assessments undertaken by BAL and presented in the TA, WCHAR and RSA. The Panel also consider the requirement to deliver the scheme at anything over 10 mppa to be

unreasonable and disproportionate. It is also unclear why the highway works need to be linked to car parking. For these reasons, the Panel have not imposed the suggested condition. The suggested condition regarding M5 J22 has been omitted for the reasons set out in the Surface Access section of this decision.

526. Conditions 7, 20, 23, 27, 30 and 34 are pre-commencement conditions and require certain actions before the commencement of development. In all cases the conditions were agreed by BAL and address matters that need to be resolved before construction begins.

Planning Obligations

527. A number of planning obligations are contained within the S106 and UU which have to be assessed in light of the CIL Regulations 2010 and NPPF paragraph 57 which state that planning obligations must only be sought where they meet the following tests:

- Necessary to make the development acceptable in planning terms;
- Directly related to the development; and
- Fairly and reasonably related in scale and kind to the development.

528. During the course of the Inquiry, it became apparent that NSC and BAL would be unable to reach agreement on all aspects of the S106. NSC proposed that a S106 could be drafted with a 'blue pencil' clause. However, BAL expressed concerns that this would make the agreement extremely difficult to follow and monitor post-consent. As a result, the Panel confirmed that it was content for a UU containing the unagreed obligations, to sit alongside the S106.

529. CIL Compliance Statements were submitted by NSC to support the obligations contained in the S106²⁵⁰ and by BAL in respect of the UU.²⁵¹ Paragraph 4.5 of the S106 and paragraph 4.2 of the UU contain a 'blue-pencil' clause which provides that if this decision letter concludes that any provision of the agreement is incompatible with any one of the statutory tests then the relevant obligation shall cease to have effect.

S106 Agreement

530. The S106 contains five schedules. The first deals with the 10mppa permission, the second with transport and travel, the third with the A38 highway works, the fourth with environmental matters such as air quality, noise and the Skills and Employment Plan and the fifth with contributions to NSC.

Schedules 2& 3 - Transport and Travel

531. Schedule 2 contains obligations in respect of the establishment of a Surface Access Steering Group and Public Transport Improvement Fund, the BA Travel Forum, PTMS rebasing methodology and new public transport services, the Metrobus, a Workplace Travel Plan, a review of drop off zone charges, parking controls, traffic monitoring, a contribution to the Highways Improvement Fund,

²⁵⁰ INQ/113

²⁵¹ INQ/119

a feasibility study for the A370/Southern Bristol Link (SBL) junction and the PTI.

532. Other than where stated below, the Panel is satisfied that these obligations are necessary to ensure the promotion of sustainable forms of transport consistent with the PTMS target contained in the ASAS.

533. The obligations contained in Schedule 3 relating to the A38 highway improvement works are considered necessary to ensure the efficient and timely delivery of the works to mitigate the impact of the development.

Schedule 4 – Environmental and Social

534. The environmental obligations contained in Schedule 4, which include air quality monitoring and reporting, a revised Noise Control Scheme and a Ground Noise Management Strategy. These have been discussed elsewhere in this report and are considered to meet the relevant statutory tests.

535. A Skills and Employment Plan, aimed at achieving the delivery of employment opportunities for residents of North Somerset and adjoining areas, is necessary to maximise the socio-economic benefits of the development. This obligation is therefore considered to meet the relevant statutory tests.

Schedule 5 - Contributions

536. Schedule 5 contains the following contributions that are to be paid to NSC:

- A Public Transport Fund of £875,000 to be made available to the Surface Access Steering Group for public transport improvements;
- A Metrobus Contribution of £500,000 to provide a fund for measures identified in the Metrobus Service Integration and Network Improvements feasibility study;
- A West of England Combined Authority Mobility as a Service Platform contribution of £50,000 would be spent on Demand Responsive Transport Services in the local area;
- An Airport Environmental and Amenity Improvement Fund contribution of £100,000 would be used for the purposes of mitigation to address unforeseen adverse environmental impacts or adverse impacts on the amenity of the local community arising from the development.

537. The Panel are satisfied that the above contributions are necessary for the promotion of public transport and/or the resolution of environmental impacts and meet the relevant tests. The Panel is, however, not satisfied with the following contributions:

- The traffic monitoring obligation would require BAL to carry out periodic traffic surveys at various locations around the airport²⁵². These surveys would be used by the Surface Access Steering Group to inform decisions on potential road improvements which would be funded by a highway improvement fund of £200,000. The problem with these obligations is that they seem to undercut the significant body of transport work that was submitted and agreed with NSC at the application stage. BAL has

²⁵² See part 6 of Schedule 2.

already identified the traffic impact of the development and the Panel has found no credible evidence to suggest that this work was anything other than robust. Accordingly, a requirement for further monitoring and mitigation would be unnecessary to make the development acceptable. The traffic monitoring and highway improvement fund obligation does not therefore meet the statutory tests.

- Part 5 contains an obligation requiring BAL to pay a sum of £50,000 to NSC to enable it to carry out a feasibility study for the A370/SBL junction. However, the need for this is unclear since the TA specifically examined the impact of the development at this junction (J8) and concluded that the traffic impact of the development did not warrant any further analysis of the junction²⁵³. No evidence has been adduced to the Inquiry which would lead the Panel to conclude differently. Accordingly, it is not clear on what basis the contribution is sought bearing in mind our previous comments about the robustness of BAL's transport work. The Panel therefore conclude that this obligation does not meet the statutory tests.
- According to NSC, a parking control contribution of £225,000 would be spent on additional monitoring and other work streams related to the expansion of BA and would include targeted parking restrictions where harmful impacts are identified including the creation of a 5-year parking and enforcement officer post at NSC. However, there was no suggestion from NSC that insufficient parking is being proposed as part of the proposed development. Indeed, at the Inquiry it was NSC's general position that too much parking was being proposed. That being the case, the Panel can see little justification for concluding that the development will give rise to additional work on the part of its parking enforcement team. Accordingly, the Panel find the contribution would not meet the relevant tests.

Unilateral Undertaking

Schedule 1 – Transport and Travel

538. Schedule 1 of the UU contains various obligations related to transport and travel which are intended to achieve the 2.5% PTMS. Schedule 1 also contains obligations in respect of parking and the A38 highway works.
539. While there is general agreement on the need for a replacement/updated ASAS²⁵⁴, the exact requirements and wording of the obligation were a matter of some discussion at the Inquiry. Although BAL stated that "*the approach and methodology associated with the Replacement ASAS is agreed*", NSC raised several concerns in its closing Statement.²⁵⁵ The first is that the wording of paragraph 2.2 does not require approval of the ASAS by NSC. However, it is important to note that the wording of the obligation is consistent with the S106 attached to the 10 mppa permission²⁵⁶ which similarly required BAL to provide the ASAS to NSC. On that basis and given that no compelling reasons have been given to explain why NSC would now need to approve the ASAS, the Panel is satisfied with the wording in paragraph 2.2.

²⁵³ See TA paragraph 10.3.5

²⁵⁴ Schedule 1, Part 2 paras 2.1-2.3.3

²⁵⁵ See Annex B

²⁵⁶ CD: 4.02.2 Part 1 Obligations

540. The Panel is not persuaded that the wording of paragraph 2.3.3(b) is open to abuse as has been suggested. Read in a fair-minded way, the obligation is clear when the 2.5% PTMS target is to be achieved. While reference to the calendar year might have served to put the matter beyond doubt, it is not unreasonable to assume that this is what the obligation intends.
541. It is not necessary to rehearse the arguments in relation to the PTMS or the Key Performance Indicators as the Panel have already addressed these matters and are content with the approach.
542. NSC also criticised the 18-month period for the delivery of improvements to the Weston Flyer bus service. However, the wording in paragraph 2.3.5(c) does not preclude an earlier delivery date. In light of current uncertainties about the scope of works necessary to deliver the improvements, the Panel is satisfied with the obligation.
543. The final area of dispute relates to those obligations which deal with the Metrobus Service Integration scheme.²⁵⁷ Like the Weston Flyer improvements, the obligations involve the production of a feasibility study into the integration of the A1 Bristol Flyer service with the Metrobus network and then the implementation of improvements. The issue at hand is how the service improvements are funded. Paragraph 2.3.5(g) sets a funding cap of £200,000 on the improvements which would be derived from the Public Transport Fund/Public Transport Improvement Fund.
544. According to NSC that amount is not sufficient²⁵⁸ and more funding would be required to fund the Flyer Shuttle improvements in the longer-term. Because of this, the funding available to other public transport improvement measures would be restricted. BAL have criticised NSC's costings which it points out have not been validated and incorrectly contains gross vehicle purchase costs.
545. Irrespective of the costings, BAL through the S106, is undeniably committing a considerable sum of money to the improvement of public transport services.²⁵⁹ The Panel consider that decisions about how and when that money is best spent would be a matter for the Surface Access Steering Group at the appropriate time informed by amongst other things, the feasibility studies and periodic reviews of the measures. Importantly, the wording in the UU does not preclude the continuation of the improved Flyer Shuttle service beyond the initial 24-month trial period.²⁶⁰ This would be a decision for the Surface Access Steering Group once it had reviewed the scheme at the end of the trial period. If at that time further financial support was required, this would come from the Public Transport Fund/Public Transport Improvement Fund.
546. Despite that, the principle of a cap seems a sensible one. It would not be reasonable or proportionate to expect BAL to enter into an uncapped or unconditional funding arrangement. Nor would it be prudent to keep pumping money into a scheme that could be failing to stand on its own feet in a commercial sense or failing to deliver the desired results. £200,000 represents an appropriate sum of money to fund the 24-month trial after which there must

²⁵⁷ UU paragraph 2.3.5(e)

²⁵⁸ Costings were presented in NSC's Closing Submissions suggesting that circa £2.4m would be required to fund the scheme for an 11-year period.

²⁵⁹ £1.375m

²⁶⁰ See UU paragraph 3.1

be a legitimate expectation that the service improvements would become self-funding.

547. The term “subject to a positive outcome from the feasibility study” is not in our view vague or unenforceable as has been suggested. Interpreted in a straightforward way, ‘positive outcome’ means that the improvements can be demonstrated to be ‘feasible’ i.e. done easily or conveniently and are likely to contribute to the aims of the ASAS. Overall, the ASAS, and associated obligations accord with CS Policies CS1, CS10 and CS23, Policies DMP DM50 and DM54 as well as the NPPF and APF in that as they promote sustainable travel and surface access improvements.

548. Obligations related to the phased approach to additional parking delivery²⁶¹ are necessary to ensure that additional parking is brought forward in a flexible manner that responds to demand. For the avoidance of doubt, the obligation would require BA to deliver MSCP 2 and the year round use of Cogloop 1 ahead of any extension to the Silver Zone Car Park (Cogloop 2) and MSCP 3.

Schedule 2 – Noise Mitigation Scheme

549. The noise mitigation scheme has been discussed in depth. Shortcomings in the scheme have been identified, in terms of the funding and scheme parameters, and a planning judgement made on that basis. However, in so far as the obligations seek to provide funding for properties above SOAEL in the L_{Aeq} contours, the obligations contained here would meet the relevant tests.

550. Overall, the Panel is satisfied that the obligations contained in the UU meet the statutory tests.

Planning Balance and Very Special Circumstances

551. Planning law requires that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise. The NPPF advises that, under the presumption of sustainable development, decisions which accord with up-to-date policies should be approved without delay.

552. The Panel has found that there is a demonstrable need for the proposed development and that, flowing from this, the socio-economic benefits of the scheme would weigh substantially in its favour. National aviation policy contained within APF and MBU also provides high level and strong policy support for airport expansion in general. Development plan policies CS23 and DM50 provide positive support for the growth and development of BA. Airport expansion is also supported at a regional level.

553. However, all of these provide support conditionally in relation to environmental effects. For the reasons explained above, the Panel have found conflict with the development plan in respect of noise effects and the Panel recognise the harmful effect this would have on the amenity and health of some local residents.

²⁶¹ Schedule 1, Part 2, Para 4

554. Other environmental effects have been assessed, including climate change, highways matters,²⁶² air quality, as well as character and appearance (and the AONB), and biodiversity. These are considered to be neutral in the balance as no material harm was found, nor conflict with relevant development plan policies or other broader national policy objectives.
555. Accordingly, while there is some conflict with CS23, DM50 and the regional and national policy in specific respect of noise, taking a broad view, the proposed development is largely in compliance with these development plan policies and documents. This is in terms of positive growth benefits and against the range of potential environmental effects.
556. Part of the development proposed is also in the Green Belt and the Panel have found that the development would harm the Green Belt due to inappropriateness, loss of openness and conflict with the Green Belt purposes. There would also be conflict with the development plan in this regard. The NPPF requires substantial weight to be given to any harm to the Green Belt.
557. The determination of whether very special circumstances exist is a matter of planning judgement based on a consideration of all relevant matters. However, very special circumstances cannot exist unless the harm to the Green Belt, and any other harm, is clearly outweighed by other considerations.
558. In addition to the need and socio-economic benefits, other considerations relating to the need for additional parking and a lack of alternative sites outside of the Green Belt have been assessed. While the case may be somewhat moderated given the Panel's findings in respect of the assessment of decked parking and staff car parking, there remains a demonstrable need to provide car parking which cannot fully be accommodated outside of the Green Belt.
559. The Panel have also considered matters relating to prematurity, other airport expansion, 'salami slicing', general health and the PSED which are matters which do not fundamentally alter our conclusions on the main issues.
560. There was, and remains, a significant level of opposition to the proposed scheme. Objections were made at a local, regional, national and international level. We realise that our decision will come as a major disappointment to those people who spoke passionately in opposition to the proposal. In coming to our decision, the protests of individuals, communities, Members of Parliament, action groups, technical experts and others were fully heard and carefully considered by the Panel.
561. Taking the above together, the Panel consider that the benefits arising from the proposed development are as such that they would clearly outweigh the harm to Green Belt and the harm to noise, so as to amount to very special circumstances. The Green Belt tests in the NPPF and CS Policy CS6 and DMP Policy DM12 are thus met.

²⁶² Including surface access, sustainable transport objectives, the highway network, highway safety and parking provision

Conclusion

562. Despite the harms identified and taking account of all other considerations, the Panel concludes that the balance falls in favour of the grant of planning permission.

563. For the reasons given above, and having regard to all matters raised, the Panel conclude that the appeal should be allowed.

P. J. G. Ware
Lead Inspector

C. Searson
Inspector

D. M. Young
Inspector

SCHEDULE OF CONDITIONS

- 1) Any application for the approval of reserved matters made pursuant to this planning permission shall be made to the Local Planning Authority before the expiration of 5 years from the date of this permission.
- 2) The development hereby permitted shall be begun, either before the expiration of 5 years from the date of this permission, or before the expiration of 2 years from the date of approval of the last reserved matter to be approved for that element or phase of the development, whichever is the later
- 3) The development is approved in accordance with the documents submitted with the application and the plans set out below. Those reserved matters approved to date shall be carried out in accordance with the approved plans.

Drawings

- 17090-00-100-400 Location Plan
- 17090-00-100-401 Composite Site Plan
- 17090-00-100-402 Site Reference Plan
- 17090-00-100-407 Proposed Site Plan
- 17090-00-100-408 Proposed Site Plan - North
- 17090-00-100-409 Proposed Site Plan - Central
- 17090-00-100-410 Proposed Site Plan - South
- 17090-00-100-411_02 Permitted Development Rights Reference Site Plan
- 17090-00-200-401_0 Ground Floor Plan – Proposed
- 17090-10-200-401_00 First Floor Plan- Proposed
- 17090--10-200-401_00 Basement Floor Plan-Proposed
- 17090-20-200-401_00 Mezzanine Floor Plan-Proposed
- 17090-ZZ-125-401_00 Roof Plan – Proposed
- 17090-ZZ-300-401_00 South Terminal Extension & B1, B2 and B3 – Proposed Elevations (Sheet 1 of 2)
- 17090-ZZ-300-403_00 South Terminal Extension & B1, B2 and B3 – Proposed Elevations (Sheet 2 of 2)
- 17090-ZZ-300-405_00 West Terminal Extension – Proposed Elevations
- 17090-ZZ-300-407_00 Terminal Canopies – Proposed Elevations
- 40506-Bri075c Integrated/embedded Landscape, Visual and Ecology Mitigation Masterplan
- C1124-SK-A38-010 Rev 11 (A38 Junction Improvements – Option 10)
- C1124-SK-A38-011 Rev 1.0 (A38 Junction Improvements – Vehicle Track Analysis Sheet 1 of 3)
- C1124-SK-A38-012 Rev 1.0 (A38 Junction Improvements – Vehicle Track Analysis Sheet 2 of 3)
- C1124-SK-A38-013 Rev 1.0 (A38 Junction Improvements – Vehicle Track Analysis Sheet 3 of 3)

Other Documents

- ES Addendum Volume 1: Main Report November 2020
 - ES Addendum Volume 2: Technical Appendices (including appendices 1A, 1B, 1C, 5A, 6A, 6B, 7A, 7B, 10A, 10B and 10C) November 2020
 - ES Addendum Volume 3: Non-Technical Summary November 2020
 - Economic Impact Assessment Addendum November 2020
 - Environmental Statement Volume 1 (including Flood Risk Assessment) – December 2018
 - Environmental Statement Volume 2 December 2018
 - Environmental Statement Non-Technical Summary December 2018
 - Design and Access Statement – December 2018
 - Economic Impact Assessment – November 2018
 - Transport Assessment – December 2018
 - Foul and Surface Water Drainage Strategy – December 2018
 - Lighting Impact Assessment – December 2018
 - BREEAM Pre-Assessment – November 2018
 - Response to Request for Further Information Pursuant to Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 - April 2019
 - Response to Request for Further Information Pursuant to Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 - October 2019
 - Response to North Somerset Council Highways and Transport Comments – December 2019
 - Response to Further Environment Agency Comments – December 2019.
- 4) Details of the outstanding Reserved Matters for those components set out in Table 1.1 of the 'Planning Statement' dated December 2018, shall be submitted to and agreed in writing by the Local Planning Authority before that component is constructed. Each component shall be carried out in accordance with the approved details for that component.
- 5) The total passenger throughput at Bristol Airport shall not exceed 12 million passengers per annum to be taken from 1 January to 31 December in any calendar year. Total passengers shall include all passengers resulting from arrival and departure flights. The airport operator shall, within 12 months of the date of the planning permission, provide details to the Local Planning Authority for its approval which sets out how it will establish total passenger number and the steps it will take to ensure that no more than 12 mppa throughput will occur and steps that it will take to remedy any such breach. Once approved, those details shall be implemented and retained until superseded by any subsequently approved details.
- 6) Within 12 months of commencement of development and annually thereafter a 'Parking Demand and Capacity Report' shall be submitted to and agreed in writing by the Local Planning Authority. The report will include:
- a) A review of parking demand in the previous 12 months both overall and by product type (including drop-off), including identifying the

peak periods of demand, the length of stay and when demand is at or exceeds 95% of existing capacity for more than 4 weeks

- b) A review of parking capacity on-site, including a projection for the next 12 months;
- c) A review of passenger throughput in the previous 12 months and average percentage growth;
- d) Engaging with NSC to provide a review of parking capacity off-site, including an aerial survey in the month of September;
- e) Identification of any other proposals for airport car parking through monitoring of planning applications to North Somerset Council, Bristol City Council and Bath and North East Somerset Council;
- f) A review of the occupancy of the Staff Car Park;
- g) A review of infrastructure options to accommodate forecast demand over the subsequent 12 months;
- h) Identification of the preferred option to deliver parking capacity.

This report shall be submitted to and agreed in writing by the Local Planning Authority.

- 7) No phase or component of development shall be commenced, including demolition, ground works or vegetation clearance, until a Construction Environmental Management Plan (CEMP) for that phase of development / element has been submitted to and approved in writing by the Local Planning Authority. The CEMPs shall include:
 - a) A construction traffic management plan including details of the routes and vehicle entrance routes into the airport to be used by contractors' vehicles moving to and from the site (and the appropriate signage thereof) and HGV delivery times;
 - b) Details of measures to minimise noise, dirt, dust (and other air borne particles) and vibration during construction;
 - c) A waste management plan;
 - d) A construction air quality management plan;
 - e) Proposed working hours, including any night-time working hours;
 - f) A cumulative assessment of the impact of the individual phase/element, when taken together with any other phases/elements that will be ongoing or are projected to be commenced while this phase/element is constructed.

Items (a) to (f) shall be the subject of auditing and reporting by the applicant and/or site contractors and these records shall be kept up to date and supplied to the Local Planning Authority upon request. The development shall be carried out in accordance with the approved CEMP.

- 8) Within six months of the of grant of this permission, an Air Quality Action Plan (AQAP) shall be submitted to the Local Planning Authority for approval. The AQAP will set out measures to reduce the impact of airport operations on local air quality.

The AQAP shall include targets, with dates and quantified where appropriate, for the delivery of measures to reduce the impact of the airport on local air quality.

An annual update to the AQAP shall be submitted to and approved by the Local Planning Authority as part of the Airport Operations Monitoring Report that sets out progress made against agreed targets, including an

independent third-party review and recommendation for reviewing targets where deemed necessary, taking account of the following:

- a) Updates in the light of new national and local policies;
- b) New scientific or technical developments;
- c) Performance of the airport against the targets specified above.

Alternative action measures shall be agreed with the Local Planning Authority within 3 months, if the review shows that the AQAP is not meeting previously agreed targets.

All approved measures shall be implemented and complied with.

- 9) Within six months of the date of this permission, a Carbon and Climate Change Action Plan (CCCAP) shall be submitted to the Local Planning Authority for approval. The CCCAP and its outcomes will be subject to the following reviews:

- a) Annually: independent verification by the Airports Carbon Accreditation Scheme with the results being made available to the Local Planning Authority;
- b) Annually: publication as part of the Airport Operations Monitoring Report, available for review by all stakeholders including the Local Planning Authority;
- c) Every three years: independent audit and inspection by the Airports Carbon Accreditation Scheme with the results being made available to the Local Planning Authority;
- d) Every five years: Bristol Airport Limited review and update, including consultation with the Local Planning Authority and other stakeholders.

The CCCAP shall be updated to reflect any new national policies or targets. The methodology may be amended by agreement with the Local Planning Authority to include updates to best practice methodologies and new scientific or technical developments.

All approved measures within the CCCAP, as amended and updated, shall be complied with.

- 10) Within six months of the date of this planning permission a scheme for the installation of rapid electric vehicle charging points at the airport shall be submitted to the Local Planning Authority. The scheme shall indicate the number and locations of the charging points and timetable for their installation. Once approved by the Local Planning Authority, the approved scheme shall be fully implemented in accordance with the approved timetable and retained thereafter.
- 11) Within six months of the date of this permission, a strategy for the phased introduction of Electric Vehicles into the airport's contracted taxi fleet and to encourage the use of lower emission vehicle amongst other taxi operators shall be submitted the Local Planning Authority. The strategy shall include an initial target within the contracted taxi fleet of 75% of vehicles to be fully electric or hybrid (or other agreed alternative vehicles which are zero emissions) within a timetable to be agreed in

writing by the Local Planning Authority, transitioning to 100% by the attainment of 12mppa. Once approved by the Local Planning Authority the approved strategy shall be fully implemented in accordance with the approved timetable and retained thereafter.

- 12) The passenger throughput at Bristol Airport shall not exceed 10 million passengers in any 12-month period (to be taken from 1st January to 31st December unless a different 12 month start and end date is agreed) unless an application to the Secretary of State to designate Bristol Airport as a fully coordinated airport (as defined in regulation 2 of the Airports Slot Allocation Regulations 2006 or any regulations revoking and re-enacting those regulations with or without modification) is submitted.

- 13) There shall be no more than 85,990 Air Transport Movements (ATM's) at Bristol Airport per annum which includes take-off and landing movements, from 1 January to 31 December each year. This shall include commercial and non-commercial flights.

The airport operator shall provide quarterly reports in writing to the Local Planning Authority, within 28 days of the last day of each quarterly period, to show that the quarterly and cumulative figures for each category comply with these limits and set out the steps it proposes to implement in order to prevent any exceedances of these limits in the next quarter. Once approved, those details shall be implemented and retained until superseded by any subsequently approved details.

For the purposes of this condition, the limit to ATMs shall not apply to aircraft taking off or landing in the airport because of an emergency, instruction from Air Traffic Control or any other circumstance beyond control of the airport operator.

- 14) Upon commencement of development, up to the passenger throughput at Bristol Airport exceeding 10 million passengers in any 12-month period (to be taken from 1 January to 31 December unless a different 12-month start and end date is agreed), the area enclosed by the 57dB daytime noise contour shall not exceed 12.42 km².

Upon the passenger throughput at Bristol Airport exceeding 11 million passengers in any 12-month period (to be taken from 1 January to 31 December unless a different 12-month start and end date is agreed), the area enclosed by the 57dB daytime noise contour shall not exceed 11.56 km².

The area enclosed by the 57dB daytime noise contour shall not exceed 10.70 km² from when passenger throughput at Bristol Airport reaches 12 mppa in any 12-month period. The area enclosed by the 55dB night-time noise contour shall not exceed 6.8km² from when passenger throughput at Bristol Airport reaches 12 mppa in any 12-month period.

Forecast aircraft movements and consequential forecast and actual noise contours for the forthcoming year shall be reported to the Local Planning Authority annually within the Annual Operations Monitoring Report.

- 15) The area enclosed by the 63, 60, 57, 54 and 51 dB(A) Leq 16hr (07:00 hours to 23:00 hours) noise contours and the 55 and 40 dB LAeq,8hr summer night-time noise contour (23:00 hours to 07:00 hours) for the forthcoming year (from 1 January to 31 December each year) shall be reported to the Local Planning Authority annually within the Annual

Operations Monitoring Report. The same report shall include comparison of the predicted noise levels at the Noise Monitoring Terminals based on the forecast noise contours for the previous year with the 92-day averaged summer measured noise levels at the NMTs.

- 16) The noise classification of any aircraft shall be that set out as per those defined for designated aerodromes:
- a) The quota count of an aircraft on take-off or landing shall be calculated based on the noise classification for that aircraft on take-off or landing, as follows:

Noise Level Band EPN dB	Quota Count (QC) Classification
>102	16
101-101.9	8
100-100.9	6.7
99-99.9	5.4
98-98.9	4
97-97.9	3.4
96-96.9	2.8
95-95.9	2
94-94.9	1.7
93-93.9	1.4
92-92.9	1
91-91.9	0.83
90-90.9	0.69
89-89.9	0.5
88-88.9	0.42
87-87.9	0.34
86-86.9	0.25
85-85.9	0.21
84-84.9	0.17
83-83.9	0.125
82-82.9	0.085
81-81.9	0.045
80-80.9	0.025
<80	0.0125

Exempt aircraft are those jet aircraft with a maximum certificated weight not exceeding 11,600 kg.

- b) For the purposes of this condition, an aircraft shall be deemed to have taken off or landed at the time recorded by the Air Traffic Control Unit of Bristol Airport.
- c) This condition shall take immediate effect at the start of the first full season (being the winter season or the summer season) following the commencement of development. Subject to the following provisions of this condition, the quota for the summer season shall be 1260, and the quota for the winter season shall be 900.
- d) An aircraft with a quota-count of 2 or above shall not:

- i) be scheduled to take off or land during the period 23.00 hours to 06.00 hours; or
 - ii) be permitted to take off during the period 23.00 hours to 06.00 hours except in circumstances where: it was scheduled to take off prior to 23.00 hours; and take-off was delayed for reasons beyond the control of the air traffic operator.
- e) An aircraft shall not be permitted to take off or be scheduled to land during the period 23:30 hours to 06:00 hours where:
- i) the operator of the aircraft has not provided (prior to its take-off or prior to its scheduled landing time as appropriate) enough information (such as aircraft type or registration) to enable the airport manager to verify its noise classification and thereby its quota count; or
 - ii) the operator claims that the aircraft is an exempt aircraft, but the aircraft does not, on the evidence available to the airport manager, appear to be an exempt aircraft.
- f) If any part of that quota remains unused in any one season, the amount of the shortfall up to a maximum of 10% shall be added to the quota for the subsequent season.
- g) The 10% value expressed in f) shall be reduced on a progressive basis in accordance with the following schedule:

Timeline	% Quota Maximum carry-over allowance from unused quota points from the preceding season only
In the first 2 seasons which begin 12 months after the commencement of development	8%
In the 2 seasons which begin 2 years after the commencement of development	6%
In the 2 full seasons which begin 3 years after the commencement of development	4%
In the 2 full seasons which begin 4 years after the commencement of development	2%
In the 2 full seasons which begin 5 years after the commencement of development	0% This is then retained in perpetuity

- h) An aircraft shall not be permitted to take off or be scheduled to land during the period 23.00 hours to 07.00 hours where:
 - i) the operator of the aircraft has not provided (prior to its take-off or prior to its scheduled landing time as appropriate) sufficient information (such as aircraft type or registration) to enable the airport manager to verify its noise classification and thereby its quota count; or
 - ii) the operator claims that the aircraft is an exempt aircraft, but the aircraft does not, on the evidence available to the airport manager, appear to be an exempt aircraft.

- I) This condition shall not apply to any take-off or landing, which is made:
 - i) where the airport manager decides, on reasonable grounds, to disregard for the purposes of this condition a take-off or landing by a flight carrying or arriving to collect cargoes, such as medical supplies, required urgently for the relief of suffering, but not cargoes intended for humanitarian purposes where there is no special urgency;
 - ii) where the airport manager decides to disregard for the purposes of this condition a take-off or landing in any of the following circumstances:
 - delays to aircraft, which are likely to lead to serious congestion at the aerodrome or serious hardship or suffering to passengers or animals;
 - delays to aircraft resulting from widespread and prolonged disruption of air traffic;
 - where an aircraft, other than an aircraft with a quota count of 4 or above, is scheduled to land after 06:30 hours but lands before 06:00 hours;

Provided that, for the avoidance of doubt, where an aircraft is scheduled to land between 06.00 hours and 06.30 hours but lands before 06.00 hours, that landing shall count towards the quota.

It shall be the duty of the airport manager to notify the Local Planning Authority in writing, within one month from it occurring, of any occasion (whether a single occasion or one of a series of occasions) to which this paragraph applies.

- j) This condition shall not apply to any take-off or landing which is made in an emergency consisting of an immediate danger to life or health, whether human or animal.

- 17) The total number of aircraft movements at the airport including take-offs and landings between the hours of 23:30 hours and 06:00 hours for 12 months (for the avoidance of doubt this will be two adjoining seasons of Summer and Winter) shall not exceed 4000. For the purposes of this condition flights falling within the categories listed in condition 16) sub-clause I) and j) shall not be included. For clarity, a take-off or a landing shall comprise 1 movement.

- 18) The total number of take-offs and landings between 06:00 hours and 07:00 hours and between 23:00 hours and 23:30 hours (the 'shoulder periods') shall not exceed 9,500 in any calendar year. For the purposes of this condition, flights falling within the categories listed in condition 16) sub-clause I) and j) shall not be included.
- 19) The highway improvements to the A38 and Downside Road and associated works to the West Lane junction shown in drawing number C112-SK-A3800101 Rev 11.0 shall not begin until the following details have been submitted to and approved in writing by the Local Planning Authority:
 - a) The existing and proposed finished surface levels of the carriageway and adjoining foot and cycle paths; and
 - b) Clarification of all existing boundary walls, fences and other enclosures to be removed to make way for the highway works, together with details of their replacement in terms of the position, appearance, height and materials;
 - c) A timetable for the works; and
 - d) Any other minor amendments deemed necessary to ensure compliance with the relevant standards.

The highway works shall be carried out in accordance with the approved details and timetable.

- 20) No development shall begin until the landscape planting and landscape improvement areas that are shown in the 'Integrated / embedded landscape, visual and ecology mitigation masterplan' (Drawing Number 40506-Bri075c) have been developed into detailed landscape designs for each area. These shall be submitted to and approved by the Local Planning Authority before the landscape works are carried out and they shall include the following details:
 - a) Existing and proposed finished ground levels;
 - b) Existing trees, shrubs, hedges or other soft features to be removed and retained;
 - c) Details of the location and type of tree protection measures;
 - d) Planting plans, including specifications of species, sizes, planting centres, number and percentage mix of all new planting;
 - e) Details of how the soft landscaping will enhance biodiversity value
 - f) A timetable for implementing the approved landscaping works for each area;
 - g) A management plan of the landscaping scheme; including maintenance details and a timescale for implementation of the planting.

The details shall be implemented as approved.

- 21) Any trees, shrubs or hedges (or part thereof) which comprise part of the scheme of landscaping and which within a period of 5 years from the date of planting die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with the same species, size and number unless otherwise agreed.

- 22) No development shall commence in respect of the off-site highway works (Site 'O' on Site Reference Plan – Drawing Number 17090-00-100-402) until a detailed Arboricultural Method Statement Report with Tree Survey and Tree Protection Plan, following the recommendations contained within BS 5837:2012, has been submitted to and approved in writing by the Local Planning Authority.

The Arboricultural Method Statement Report shall include the control of potentially harmful operations such as site preparation (including demolition, clearance and level changes); the storage, handling and mixing of materials on site, location of site offices, service run locations including soakaway locations and movement of people and machinery.

The report shall incorporate a provisional programme of works. Supervision and monitoring details by an Arboricultural Consultant and site visit records and certificates shall be provided to the Local Planning Authority. The Tree Protection Plan must be superimposed on a layout plan, based on a topographical survey, and exhibit root protection areas which reflect the most likely current root distribution, and reflect the guidance in the Arboricultural Method Statement Report. The Arboricultural Method Statement shall be implemented as approved.

- 23) Prior to the commencement of development hereby permitted (including demolition, ground works or vegetation clearance), a Biodiversity Construction Management Plan (BCMP) shall be submitted to and approved in writing by the Local Planning Authority. The BCMP shall include the following:
- a) A risk assessment of potentially damaging construction activities including enabling works and construction requirements (e.g. construction lighting, vehicle movements, etc);
 - b) Identification of "biodiversity protection zones";
 - c) Practical measures to avoid, reduce or mitigate impacts on designated sites, habitats and protected and notable species during construction. This shall include a detailed updated survey and mitigation strategy for any badger setts within the footprint of the proposed works;
 - d) The location and timings of sensitive works to avoid harm to biodiversity features, including details of timing and phasing to avoid impacts on horseshoe bats. This shall include details of the timing and phasing of vegetation removal to ensure that flight lines suitable for use by horseshoe bats are retained and details of construction lighting;
 - e) The times during construction when specialist ecologists need to be present on site to oversee works;
 - f) Responsible persons and lines of communication;
 - g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person;
 - h) Use of protective fences, exclusion barriers and warning signs, including protection of boundary features suitable for use by horseshoe bats.

The approved BCMP shall be adhered to at all times.

- 24) No development within the airfield grassland or the extension to the 'Silver Zone' car park (Site 'M' on the 'Site Reference Plan' – Drawing Number 17090-00-100-402 Rev 00) shall be commenced until full details of a Scheme of Grassland Mitigation and Translocation has been submitted to and approved in writing by the Local Planning Authority. These measures shall include:
- a) The aims and objectives of the mitigation measures and translocation scheme;
 - b) The location and details of a suitable receptor site(s) including details of ecological, hydrological, and geological conditions at the existing areas of species-rich grassland and proposed receptor site;
 - c) A method statement for the grassland removal and translocation;
 - d) Full details of long-term management of the receptor site;
 - e) Details of management and restoration of retained species-rich grassland elsewhere within the landholding;
 - f) Details of the persons responsible for the implementation of the scheme;
 - g) A programme (timetable) to ensure that the approved Grassland Mitigation and Translocation scheme is completed before works to the airfield grassland or the extension to the 'Silver Zone' car park begins;
 - h) Measures for the monitoring of the scheme for a minimum period of ten years. The means of reporting the findings to the Local Planning Authority shall also be specified, with remedial measures to be submitted as part of the reporting process, if required; and implemented in accordance with the approved monitoring reports.
 - i) The scheme shall also set out contingencies and/or triggers and options for remedial action in the eventuality of failure of the translocation as indicated by reduction in grassland condition or status as species-rich habitat as indicated by monitoring survey findings.

The agreed mitigation and translocation scheme and ongoing grassland management and monitoring shall be carried out as approved.

- 25) Prior to the commencement of any part of the extension to the 'Silver Zone' car park (Site 'M' on the 'Site Reference Plan' – Drawing Number 17090-00-100-402 Rev 00) or the approved highway works at the A38 / Downside Road / West Lane (Site 'O' on Site Reference Plan – Drawing Number 17090-00-100-402), a Biodiversity Mitigation and Management Plan (BMMP) that accords with the document titled: 'Integrated / embedded Landscape, Visual and Ecology Mitigation Masterplan' Wood Consultants (August 2019) and Chapter 11 of the 'Environmental Statement', shall be submitted to, and approved in writing by, the Local Planning Authority. The BMMP shall include the following:
- a) Description and evaluation of on-site features to be managed;
 - b) Description of the off-site features to be managed including replacement habitat for horseshoe bats as detailed in Outline SAC/SPD Ecological Management Plan for North Somerset and Mendip Bat SAC SPD (Johns Associates, 2018);

- c) Details of the extent and location of habitat retention, creation and enhancement measures;
- d) Ecological trends and constraints that might influence management;
- e) Aims and objectives of management;
- f) Appropriate management options for achieving aims and objectives.
- g) Prescriptions for management actions;
- h) The timescales for implementation of the BMMP, demonstrating that replacement horseshoe bat habitat will be available before suitable on-site habitat is removed, disturbed or otherwise negatively impacted in accordance with the North Somerset and Mendip Bats Special Area of Conservation (SAC) Guidance on Development: Supplementary Planning Document (Adopted January 2018);
- i) A work schedule (including an annual work plan capable of being rolled forward over a ten-year period and recommendation for ongoing review);
- j) Details of the body or organisation responsible for managing the day-to-day implementation of the plan;
- k) Ongoing monitoring and remedial measures including a monitoring schedule for the off-site replacement habitat for horseshoe bats as detailed in Outline SAC/SPD Ecological Management Plan for North Somerset and Mendip Bat SAC SPD (Johns Associates, 2018). This shall include a compliance report submitted to and agreed in writing before suitable on-site habitat for horseshoe bats is removed, disturbed, or otherwise negatively impacted, to demonstrate that suitable off-site compensatory habitat has been provided. The means of reporting the findings to the Local Planning Authority and Natural England shall also be specified.

The BMMP shall also include details of the mechanism(s) by which the long-term implementation of the plan will be secured by the developer, detailing responsibility for its delivery. The plan shall also set out contingencies and/or triggers and options for remedial action to ensure that it delivers the fully functioning biodiversity objectives of the approved scheme. The approved BMMP will be implemented in accordance with the approved details.

- 26) No phase or element of development hereby permitted at Sites 'A', 'K', 'L' or 'M' as shown in the Site Reference Plan (Drawing Number 17090-00-100- 402-00) shall be commenced until a detailed external lighting design strategy for that phase or element of development, has been submitted to and approved in writing by the Local Planning Authority. The lighting strategy shall be consistent with the framework provided in the: 'Lighting Impact Assessment' (Hydrock, December 2018) and 'Lighting Impact Assessment - Additional Study' Document C-09194_P01 (Hydrock 2019), including measures to ensure light spill onto habitats suitable for horseshoe bats is below 0.5 lux. The detailed strategy for each phase/element shall include:
- a) Identification of areas/features on site that are sensitive for bats;
 - b) Details of the type, number, location and height of the proposed lighting, including lighting columns;
 - c) Existing lux levels affecting the site;
 - d) The predicted lux levels; and
 - e) Lighting contour plans.

All external lighting shall be installed in accordance with the approved lighting strategy/details. No other external lighting shall be installed without prior consent from the Local Planning Authority.

- 27) No phase or component of development shall take place until an assessment of the nature and extent of contamination on that site has been submitted to and approved in writing by the Local Planning Authority. This assessment must be undertaken by a competent person, and shall assess any contamination on the site, whether or not, it originates on the site. Moreover, the survey must include the extent, scale and nature of contamination and an assessment of the potential risks to;
- a) human health;
 - b) property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes;
 - c) adjoining land;
 - d) groundwaters and surface waters;
 - e) ecological systems; and
 - f) archaeological sites and ancient monuments.
- 28) Unless the Local Planning Authority confirms in writing that a remediation scheme is not required, no phase or element of development shall take place until a detailed remediation scheme to bring the site to a condition suitable for the intended use by removing unacceptable risks to human health, buildings and other property and the natural and historical environment has been submitted to and approved in writing by the Local Planning Authority. The scheme shall include all works to be undertaken, proposed remediation objectives and remediation criteria, an appraisal of remedial options, and proposal of the preferred option(s), and a timetable of works and site management procedures. The scheme must ensure that the site will not qualify as contaminated land under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land after remediation. The development shall take place in accordance with the approved remediation scheme.
- 29) Within 3 months of the completion of measures identified in the approved remediation scheme as set out in condition 28, a validation report (that demonstrates the effectiveness of the remediation carried out) shall be submitted to the Local Planning Authority.
- 30) No development hereby permitted shall be commenced until full details identifying the monitoring, mitigation and reporting of groundwater levels and groundwater quality during the construction of the development have been submitted to and approved in writing by the Local Planning Authority. These details shall identify the groundwater monitoring to be implemented to measure any impacts on groundwater that might result from the development approved. Monitoring protocols shall be agreed with the Local Planning Authority, as well as reporting frequencies and triggers that will be implemented should contaminants be observed. The development shall be carried out in accordance with the approved details.
- 31) Prior to the commencement of the drainage system the developer shall demonstrate that there is no flooding for a 1 in 30 year event and no

internal property flooding for a 1 in 100 year event + 40% allowance for climate change. Details of infiltration testing for that component shall be carried out to confirm or discount the suitability of the site for the use of infiltration as a drainage element, with the submitted Foul and Surface Water Drainage Strategy December 2018 updated accordingly. The results should conform to BRE Digest 365 where trial pits are allowed to drain three times and the calculation of soil infiltration rates is taken from the time taken for the water level to fall from 75% to 25% effective storage depth. Details should also be submitted demonstrating that sufficient surface water storage can be provided on-site. Should infiltration prove not to be feasible during the detailed design stage, details of an alternative drainage strategy to be used shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details.

- 32) Prior to the commencement of the sustainable surface water drainage system a programme of implementation of the works and a maintenance and operation manual for the lifetime of the components of the drainage system shall be submitted to and approved in writing by the Local Planning Authority. Works shall be carried out in accordance with the approved details.
- 33) In all new areas of development proposed as part of this permission, no refuelling shall take place in areas without Class 1 interceptors. These shall be of sufficient size to intercept and contain the maximum hydrocarbon/chemical loss that could occur as a result of a release from a fuel supply lorry or release from an aircraft plus 10- 20%. Details shall be submitted to and approved in writing with the Local Planning Authority. The development shall be carried out in accordance with the approved details.
- 34) Prior to the commencement of each phase or component of the approved development, details of a foul water drainage scheme for that component including a timetable for its implementation, shall be submitted to and approved in writing by the Local Planning Authority. Development of each individual component shall be carried out in accordance with the approved foul drainage details.
- 35) Development of the west and south passenger terminal extensions shall not commence until a design stage certificate (with interim rating if available) has been submitted to the Local Planning Authority indicating that the west and south terminal extensions can achieve the stipulated final BREEAM level. A final certificate certifying that a BREEAM (or any such equivalent national measure of sustainable building which replaces that scheme) rating of 'Very Good' has been achieved shall be submitted to the Local Planning Authority within 3 months of the occupation of the terminal extensions, unless the Local Planning Authority agrees in writing to an extension of the period by which a certificate is issued.
- 36) The extensions to the passenger terminal hereby approved shall not be commenced until details of a scheme that generates 15% of the on-going energy requirements for the use of each extension to the passenger terminal through micro renewable or low-carbon technologies have been submitted to and approved by the Local Planning Authority.

The approved details shall be implemented during the construction phase and they shall be fully operational before the extensions are brought into use. Thereafter, the approved technologies shall be retained in full working order.

- 37) An annual Operations Monitoring Report from 1 January to 31 December shall be submitted annually to the Local Planning Authority within 3 months of the end of year period each year. The Report should provide statistical information on the operational activities which occur at Bristol Airport and associated monitoring of environmental performance covering all matters set out in conditions 6-9, 14-16, 23, 25 and 30 and the following points:
- a) the number of passengers per annum;
 - b) the number of Air Traffic Movements per annum;
 - c) the number of nighttime flights per annum;
 - d) the number of flights in the shoulder period per annum;
 - e) the quota count score for the preceding British Summer Time and British Winter Time respectively.
- 38) Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 2015, or any order amending or revoking and re-enacting that Order, no development, other than that authorised by this planning permission, shall take place within (1) the southern-most plot adjoining plot adjoining the Silver Zone parking area shown in the Proposed Site Plan (Drawing Number 17090-00-100-407-00) and (2) the land to the east side of the A38 as shown on the Red Line Plan (Drawing Number 17090-00-100-400 Rev 00) without the permission, in writing, of the Local Planning Authority.
- 39) Details of the exterior walling and roofing materials to be used in respect of the extensions to the passenger terminal (Sites 'C' and 'E' on the 'Site Reference Plan' – Drawing Number 17090-00-100-402 Rev 00), the new walkway /piers (Sites 'G' and 'H' on the 'Site Reference Plan' – Drawing Number 17090-00-100- 402 Rev 00) and MSCP3 (Site 'A' on the 'Site Reference Plan' – Drawing Number 17090-00-100-402 Rev 00) hereby granted, shall be submitted to and approved in writing by the Local Planning Authority before work on these elements commences. The development shall be carried in accordance with the approved materials.

Definitions

Definitions in these conditions the term 'component' refers to the following physical elements of the development hereby permitted:

- Multi-storey car park 3 (MSCP3) (Site 'A' on Site Reference Plan – Drawing Number 17090-00-100-402)
- West terminal extension (Site 'C' on Site Reference Plan – Drawing Number 17090-00-100-402)
- Service yard (Site 'D' on Site Reference Plan – Drawing Number 17090-00-100-402)
- South terminal extension (Site 'E' on Site Reference Plan – Drawing Number 17090-00-100-402)

- East pier and walkway (Site 'G' on Site Reference Plan – Drawing Number 17090-00-100-402)
- East pier (Site 'H' on Site Reference Plan – Drawing Number 17090-00-100-402)
- Taxiway Golf - taxiway widening and fillets (Site 'J' on Site Reference Plan – Drawing Number 17090-00-100-402)
- East taxiway link (Site 'K' on Site Reference Plan – Drawing Number 17090-00-100-402)
- Extension to the Silver Zone car park (Site 'M' on Site Reference Plan – Drawing Number 17090-00-100-402)
- Internal roads including gyratory (Site 'N' on Site Reference Plan – Drawing Number 17090-00-100-402)
- Acoustic barrier (Site 'P' on Site Reference Plan – Drawing Number 17090-00-100-402).

Definitions for Air Quality Condition

'AQAP' means a plan of deliverable measures together with a timetable and programme to implement these measures with the purpose to reduce the impact of airport operations on local air quality.

'*Airport operations*' means, for the purpose of the AQAP, the activities controlled and influenced by Bristol Airport Limited or its successors giving rise to emissions of local air pollutants, including surface access.

Definitions for Climate Change Condition

'CCCAP' means a plan of deliverable measures together with a timetable and programme to implement these measures with the purpose of reducing and offsetting greenhouse gas emissions from airport activities. The CCCAP will set out the following aims:

- By 2021 all of Bristol Airport Limited's operations and activities will be carbon neutral. This means all of Bristol Airport Limited's Scope 1 and 2 emissions will be offset by the end of 2021.
- By 2030 and with a throughput of 12 mppa, all of Bristol Airport Limited's operations and activities will be carbon net zero. This means all of Bristol Airport Limited's Scope 1 and 2 emissions will be minimised as far as practicable with any residual emissions being removed.
- By 2050 Bristol Airport as a whole will be carbon net zero. This includes Scope 1, 2 and 3 emissions, and means all of the companies that operate from or provide services to the airport, including Bristol Airport Limited and the airlines, will be contributing to the UK's carbon net zero economy.

In these aims:

'*Carbon neutral*' means that any carbon dioxide released into the atmosphere from a company's activities is balanced by an equivalent amount being removed.

'*Carbon net zero*' means prioritising reducing greenhouse gas emissions with the goal of balancing the emissions produced and emissions removed from the earth's atmosphere.

'Carbon offset' means a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere certified by an appropriate body or process.

'Carbon removal' means carbon dioxide removal, also known as greenhouse gas removal, a process in which carbon dioxide gas is removed from the atmosphere and sequestered for long periods of time, e.g. via Direct Air Capture.

'Airport activities' means, for the purpose of the CCCAP, the activities controlled or influenced by Bristol Airport Limited or its successors, giving rise to Scope 1, Scope 2, and Scope 3 carbon dioxide emissions, as defined in guidance on how to measure and report greenhouse gas emissions published by the Department for Environment Food and Rural Affairs in September 2009 or such amended guidance as may apply from time to time in future years.

'ES Addendum' means the Environmental Statement Addendum for the proposed development dated November 2020.

The 'Carbon Emissions methodology' refers to the methodology for Scope 1, Scope 2 and Scope 3 emissions being:

- Scope 1 Carbon emissions from combustion on site;
- Scope 2 Carbon emissions from power used on site but generated offsite;
- Scope 3 Carbon emissions from surface access to and from the airport for passengers, employees and employees of partner organisations, and carbon emissions from aircraft including the Landing and Take Off cycle and the Climb Cruise Descent cycle.

The methodology is as set out in Appendix 10A to Chapter 10 (the Carbon & Other GHGs (Climate Change)) of the ES Addendum, or any update to this methodology agreed between the airport operator and the Local Planning Authority. In addition:

1. Emissions from domestic aviation, intra-European Economic Area and international aviation should be reported separately since different carbon 'planning assumptions' may be applicable to each.
2. The modelled data should be reconciled on an annual basis against actual fuel use including gas, diesel, petrol and aviation fuel, adjusted for fuel brought in on incoming aircraft, certified content of Sustainable Aviation Fuels and certified carbon offsets.

Definition for ATM condition

"Non-commercial movements" means positioning flights and general aviation and are to be included in the total annual movement limits.

Definitions for Noise conditions

"Daytime noise contour" means the LAeq,16hr (07:00 to 22:59) noise contour calculated by the Aviation Environmental Design Tool (AEDT) Version 3.0d (or as may be amended) based on the actual flights during the 92-day period between

16th June and 15th September inclusive using the standardised average mode from the date of this permission.

“*Night-time noise contour*” means the LAeq,8hr (23:00 to 06:59) noise contour calculated by the Aviation Environmental Design Tool (AEDT) Version 3.0d (or as may be amended) based on the actual flights during the 92-day period between 16th June and 15th September inclusive using the standardised average mode from the date of this permission.

“*Airport manager*” means the person (or persons) for the time being having the management of Bristol Airport or persons authorised by such person or persons.

“*Maximum certificated weight*” means the maximum landing weight or the maximum take-off weight, as the context may require, authorised in the certificate of airworthiness of an aircraft.

“*Designated aerodromes*” means by virtue of the Civil Aviation (Designation of Aerodromes) Order 1981(a) Heathrow Airport - London, Gatwick Airport London and Stansted Airport - London (‘the London Airports’) are designated aerodromes for the purposes of Section 78 of the Civil Aviation Act 1982 (‘the Act’).

“*Quota*” means the maximum permitted total of the quota counts of all aircraft taking off from or landing at Bristol Airport in question during any one season between 23.30 hours and 06.00 hours.

“*Quota count*” means the amount of the quota assigned to one take-off or to one landing by any such aircraft, this amount being related to its noise classification as specified in the table.

“*The summer season*” means the period of British Summer Time in each year as fixed by or under the Summer Time Act 1972.

“*The winter season*” means the period between the end of British Summer Time in one year and the start of British Summer Time in the year next following.

APPEARANCES**NORTH SOMERSET COUNCIL**

<p>Ruben Taylor QC and Matthew Henderson of Counsel, instructed by the Solicitor to NSC</p>

They called:	
Patrick Folley BA(Hons) MA	Operations Director and Strategic Consulting Aviation Lead, Jacobs
Dani Fiumicelli BSc(Hons) MSc MCIEH MIOA	Technical Director, Vanguardia
Dr Mark Broomfield BA DPhil MIAQM	Associate Director, Ricardo Energy and Environment
Tim Colles BEng (Hons)	Senior Managing Consultant, Atkins
John Siraut BSc MSc DipTran	Director of Economics and Global Technical Lead for Transport Economics, Jacobs
Dr Mark Hinnells PhD MSc MA BA	Senior Consultant, Ricardo Energy and Environment
David Gurtler BA(Hons) BPI DipSurv MRTPI	Director, Alpha Planning

BRISTOL AIRPORT LIMITED

<p>Michael Humphries QC and Daisy Noble of Counsel, instructed by Womble Bond Dickinson</p>

They called:	
James Brass BSc	Partner, York Aviation
Nicholas Williams BSc(Hons) MSc(Hons) MIA	Associate, Bickerdike Allen Partners
Martin Peirce BSc(Hons) MSc MIES IAQM	Principal Consultant, Wood Group
Scott Witchalls MSc MILT MIHT MTPS	Director, Stantec
Matt Osund-Ireland BSc(Hons) PhD IAQM MIES	Technical Director, Wood Group
Alex Melling BA(Hons) MSc MRTPI	Associate Director, Wood Group
Neil Furber BSc PGDip MLI	Associate Director, Wood Group
Ryngan Pyper MA BA(Hons) PGDip PGDip	Director, BCA Insight

PARISH COUNCILS AIRPORT ASSOCIATION

<p>Brendon Moorhouse of Counsel, instructed by Parish Councils Airport Association</p>
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He called:	
Lawrence Vaughn BEng(Hons) PhD BEng(Hons)FIME MIMMM CENM	Director, Quiet Places (and Parish Councillor, Wrington)
Ryan Densham	Local resident
David Vaughan	Local resident

Tim Johnson	Director, Aviation Environment Federation
Dr Alex Chapman BSc PhD	Senior researcher, New Economics Foundation.
Nick Tyrell	Barrow Gurney Parish Council
Ronnie Morley	Cleeve Parish Council
Robin Jeacocke	Churchill Parish Council
Peter Longden	Winford Parish Council
Cllr Sarah Warren	Bathavon North Ward
Cllr Karen Warrington	Chew Valley Ward
Cllr Hilary Burn	Local resident and Councillor Cleeve Parish Council
Kathy Curling	Local resident
Tracy Harding	Local resident
Phil Houghton	Local resident
Becky and Jenny Heath	Local residents
Jocelyn Ryder-Smith	Local resident
Marney Shears	Local resident
Dr Tricia Woodhead BM MBA MD	Local resident and retired consultant radiologist and medical director
Kay and Colin Wooler	Local residents
Cllr Justin Milward	Local resident and Parish Councillor
Dafydd Williams	Local resident
Abi Williams	Local resident
Scarlett Vester	Local resident
Rachel Middleton	Local resident

BRISTOL AIRPORT ACTION NETWORK

Estelle Dehon QC, instructed by Bristol Airport Action Network, assisted by Steven Clarke

They called:	
Professor Kevin Anderson PhD CEng FIMechE	Chair of Energy and Climate Change, School of Mechanical, Aerospace and Civil Engineering, University of Manchester
Finlay Asher MEng	Founder Green Sky Thinking
Sam Hunter Jones BA(Hons) MPhil GDL LLM	Solicitor, ClientEarth

Extinction Rebellion Elders

Liz Beth and Johnny Devas

They called:	
Liz Beth BA(Hons) MA MRTPI DipDesign	Planning consultant
Johnny Devas AA Dip.MSt(Cantab)	Retired architect
Dr Stuart Capstick BSc MRes PhD	Deputy Director, Centre for Climate Change and Social Transformation

Professor Sally Lawson BSc PhD	Emeritus Professor of Physiology and Neuroscience
Christine Tudor BA(Hons) DipLP MPhil CMLI FRGS	Landscape architect

BRITISH AIRLINE PILOTS ASSOCIATION

Andrew Renshaw MRTPI	Planning consultant
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MICHAEL PEARCE

Amanda Sutherland	Solicitor, Sutherland Property & Legal Services
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NATIONAL HIGHWAYS (s106/conditions session)

Lisa McCaffrey BSc MSc	Planning Manager (Highways Development Management)
Marcus Anning HNC MIHE	Asset Needs Manager (SW)

INTERESTED PERSONS WHO APPEARED AT THE INQUIRY

Jo Chase	Terminal Operations Manager BAL
Kate Tilling	Local resident
Phil Heath	Chair of Governors, Chew Valley School
Jon Mayer	Federation of Small Businesses
David Searby	Local resident
Bill Roberts	Greenwash
Jenny Denny	Local resident
Dr Alison Leaf	Local resident and retired consultant paediatrician
Alastair Tudor	Somerset Chamber of Commerce
Clr Tessa Fitzjohn	Councillor, Bedminster
Ben Rhodes	CBI
Mavis Zutshi	Local resident
John Sweeny	UNITE
Caroline New	Local resident
Brenda Kingston	Local resident
Barbara Harland	Backwell Residents Association
Jackie Walkden	Local resident and Bristol FOE
Sue Poole	Local resident
Dave Mitchell	Christian Climate Action
Ollie Lax	Local resident
Roger Sirett	Local resident and member of Stop Bristol Airport Expansion
James Durie	Business West
David Worskett	CPRE

Sarah Poppy Jackson	Local resident and Chew Valley XR
Richard Bonner	Arcadis
Cllr Carla Denyer	Bristol City Councillor on behalf of Green Party and Independent Councillors
Teri Burgess	Ontario Teachers
Pete Tiley	Local resident
Professor John Adams	Stop Bristol Airport Campaign
Jerome Thomas	Local resident
Dr Steve Melia	Local resident and lecturer in transport and planning
Janet Grimes	Local resident
Tony Jones	Local resident
Sam Moppett	Local resident and former cabin crew
Tom Leimdorfer	Local resident
Peter Knapp	Air quality researcher
Ian Coatman	Part of group opposing Leeds/Bradford proposal
Caroline Lucas MP	Green Party
Elanor Hesinger	Climate scientist
John Savage	Visit West
Jonathan Hoey	Local resident
Joanna Poulton	Local resident
Valentina Cavallini	Local resident
Ben Moss	Director, agricultural cooperative
Joss Croft	Chief Executive UK Inbound
Richard Osborne	Local Resident/ Farmer
Professor Phillip Goodwin	University College London and University of the West of England
Cllr Paula O'Rourke	Leader Green Party, Bristol City Council
Carl Dainter	Head of Aviation, Mace Group
John Sleigh	Local resident
Ros Pears	Local resident
Marcus Grant	Environmental Stewardship for Health
Oscar Christopherson and Neve Roche	Chew Valley School Climate Change Group
Annie Beardsley	Local resident
Viv Talbot	Local charity worker
Susan Sidey	Retired Civil Servant
Alistair Sawday	Local resident and founder of Sawday Publishing
Sophie Feboul	Local resident
Professor Colin Davis	University of Bristol
Adrian Tait	Somerset Climate Action Group
Professor Paul Hoggett	University of the West of England (retired)
Professor Dan Lunt	University of Bristol
Asif Rehmanwala	Chief Executive, Ecotricity on behalf of Dale Vince
Dr Patrick Hart	Bristol GP
Pete Brownlee	Local resident

Tina Kilroy	Local resident
Lucienne Green	Local resident
Rory Peliza	Interested person
Poppy Brett	Local resident
Dr Kathy Fawcett	University of the West of England
Polly Denny	Local resident speaking on behalf of Dr Maya Rose Craig
Chloe Naldrett	Local resident
Richard Prior	Local resident
Tanguy Tomes	Local resident
James Ryle	Local resident
Raphaella Rasch	Interested person
Jo Hook	Local resident
George Ferguson	Ex-Mayor for Bristol (2012-2016)
Charlotte Buxton	Local resident
Jeremy Doyle	Local resident
Astrid Vaught	Local resident
Suzanne Hetherington	Local resident
Grant Mercer	Local resident/Bristol business owner
Britt Taylor	Local resident
George Oakenfold	Local resident
Alison Allan	Parson St Primary School Bedminster
Dr Emma Geen	Bristol Disability Community

WRITTEN SUBMISSIONS FROM THOSE WISHING TO APPEAR BUT UNABLE TO DO SO

Alexandra Geddis	Interested person
Alysun Jones and Timothy Blanc	Interested persons
Alan Leeson	Local resident
Anne Ley-Morgan	Interested person
Cllr Bridget Petty	Green Party, Backwell
Cherry Bretten	Local resident
Chris Millman	Interested person
Claire Wheeler	Interested person
Emma Copham	Climate Consultant
Frankie Jones	Interested person
Jane Clayton	Local resident
Jill Coleman	Local resident
Jeremy L Hinton	Interested Person
John Penrose MP	MP for Weston-super-Mare
Jacqueline Walkden	Local resident
Jo Wring	Local resident
K Haverson	Local resident
Leiza Alpass	Local resident
Liam Fox MP	MP for North Somerset
Lucy Mackilligin	Local resident
Liz Reilly	Local resident

Margaret Boushel	Local resident
M Grant	Public Health Expert
Nicky Biggs	Interested person
Public Health England	Statutory Consultee
Richard Lancaster	Local resident
Renee Slater	Interested person
R Williams	Local resident
S Barnett	Local resident
Val Key	Local resident
Additional Passer-by Comments	Combined hand-written submissions from passers-by of WSM Town Hall
Roary the Dinosaur	On behalf of extinct dinosaurs

INQUIRY DOCUMENTS

Inquiry Documents available at:

<https://gateleyhamer-pi.com/en-gb/bristol-airport/library-documents/inq-docs/>

INQ/001	Opening Statement Bristol Airport Ltd (BAL)
INQ/002	Opening Statement North Somerset District Council (NSC)
INQ/003	Opening Statement Bristol Airport Action Network (BAAN)
INQ/004	Opening Statement British Airline Pilots Association (BALPA)
INQ/005	Opening Statement Extinction Rebellion Elders (XR Elders)
INQ/006	Opening Statement Sutherland Property and Legal Services
INQ/007	Opening Statement Parish Councils Airport Association (PCAA)
INQ/008-0	Additional Proof of Evidence SPLS
INQ/008-1	Appendices to SPLS Additional Proof of Evidence
INQ/009	NSC Letter to Department for Transport
INQ/010	NSC's Fleet Mix Revision 1
INQ/011	Errata to Mr Siraut's Proof of Evidence
INQ/012	Ontario Teachers' Pension Plan Statement March 2021
INQ/013	NSC's Business Leisure Growth Inquiry Note
INQ/014	BMI Regional capacity table
INQ/015	NSC's Three Post-Pandemic Technology Trends
INQ/016	CAST Wave 1 Survey Briefing Note March 2021
INQ/017	Errata to Mr Brass' Proof of Evidence
INQ/018	NSC's Fleet Mix Revision 2
INQ/019	Mr Brass' Data Extracts from Logit Model
INQ/020	NSC's Update to Mr Siraut's Proof of Evidence
INQ/021	Errata to Mr Williams Proof of Evidence
INQ/022	CAA's Survey of Noise Attitudes 2014: Aircraft Noise and Sleep Disturbance
INQ/023	Written Submission from Richard Osborne including Noise Report dated 19 July 2021
INQ/024	PCAA Map showing Parish boundaries
INQ/025	CAA's Survey of Noise Attitudes 2014: Aircraft Noise and Annoyance, Second Edition
INQ/026	Site Visit Pack
INQ/027	BAL's Note regarding Levelling Up Fund: Prospectus and location of Cardiff Airport

INQ/028	BAL's Response to INQ018
INQ/029	Committee on the Medical Effects of Air Pollutants Advice on health evidence relevant to setting PM _{2.5} targets
INQ/030	Comparison of ESA and Jacobs Noise Forecasts
INQ/031	BAL's Technical note: Comparison of the effects on air quality of ESA and Jacobs aircraft forecasts
INQ/032	IPCC's Climate Change 2021 – Summary for Policymakers
INQ/033	Car Park Occupancy Data 2017
INQ/034-0 INQ/034-1	Calculations to support parking demand identified in Updated PDS Definition of BRS Catchment Areas
INQ/035	Assessment of mode share
INQ/036	Womble Bond Dickinson letter dated 16 March 2020 regarding outline planning application
INQ/037	BAL's Clarification of Number of Dwellings with no Change in Noise
INQ/038	BAL's Note Clarifying Number of Aircraft Movements
INQ/039	Inspectors' Note to BALPA regarding scope of evidence
INQ/040	DfT's Sustainable aviation fuels mandate - A consultation on reducing the greenhouse gas emissions of aviation fuels in the UK
INQ/041	Jet Zero Consultation Dataset updated August 2021
INQ/042	DfT's Response to INQ/009
INQ/043	UK's Hydrogen Strategy August 2021
INQ/044	BAL's Note on Slot Coordination
INQ/045	Statement of Common Ground between BAL and National Highways in relation to M5 Junction 22
INQ/046	BAL's Technical Note regarding M5 J22
INQ/047	XR Elders Note on Transport Data and Costs
INQ/048	NSC's A38 Major Road Network – Outline Business Case
INQ/049	NSC's A38/Downside Road Improvement Drawing
INQ/050	Heathfield Park Decision Notice 20/P/1438/FUL
INQ/051	Bristol Airport Parking Charges 2021
INQ/052	BALPA's Table on Parking Summary by Type
INQ/053	National Highways response dated 2 September 2021 to Inspectors' queries regarding M5 J22
INQ/054	Department for Business, Energy and Industrial Strategy - Valuation of greenhouse gas emissions: for policy appraisal and evaluation
INQ/055	BAL's letter to DfT dated 22 September 2020
INQ/056	NSC's Parking Capacity Table
INQ/057	Carbon Values Graph
INQ/058	NSC Passenger Allocation Logit Model
INQ/059	Rolls Royce Report – Leading the Transition to Net Zero Carbon
INQ/060	2021 Parking Costs at Bristol Airport
INQ/061	BAL Note on EasyJet Electric Turnaround Trial
INQ/062	DfT Letter dated 6 September 2021 regarding Decision on Requests to Review the Airports National Policy Statement under the Planning Act 2008
INQ/063	CCC's Sixth Carbon Budget Methodology Report December 2020

INQ/064	Gatwick Northern Runway: Statement of Community Consultation August 2021
INQ/065	Plan showing Car Parking levels at Bristol Airport
INQ/066	Plan showing cross sections of Bristol Airport
INQ/067	Approved elevations for MSCP2 - Drawing no. P3-201
INQ/068	XR Elders Note on BA Transport Data and Costs
INQ/069	Natural England Consultation Response 25 January 2019
INQ/070	Natural England Consultation Response 28 November 2019
INQ/071	XR Elders Note on Carbon Policies
INQ/072	PCAA Update Note on Carbon Costs
INQ/073	BAAN Note on Updated BEIS Valuation of Greenhouse Gas
INQ/074	BAL Note on Greenhouse Gas Emissions
INQ/075	NSC Valuation of Greenhouse Gas Emissions
INQ/076	Updated Socio-Economic Cost Benefit Analysis Chart 2021
INQ/077	CPRE – Saving Tranquil Places
INQ/078	Bristol Airport (UK) No. 3 Limited Annual Report
INQ/079	NSC Position on Slots and Grampian Conditions
INQ/080	West of England Joint Committee Approved Motion on Bristol Airport Expansion
INQ/081	NSC Note regarding Outstanding Transport Information
INQ/082	Somerset County Council response to Inspectors Questions
INQ/083	BAL Response on Logit Passenger Allocation Model
INQ/084	National Highways response to Inspectors' questions
INQ/085	WHO Global Air Quality Guidelines
INQ/086	PCAA Comments on INQ/085
INQ/087	Draft s106 Agreement 29 September
INQ/088	Draft s106 Unilateral Undertaking 29 September
INQ/089	Draft CIL Compliance Statement
INQ/090	Bristol Airport Traffic Displacement Estimation January 2020
INQ/091	CAA Passenger Survey 2019 excerpt
INQ/092	CCC Advice on reducing UK Emissions
INQ/093	XRE Comments on INQ/085
INQ/094	High Court Decision on the Application for Statutory Review by Uttlesford District Council regarding the Stansted Decision
INQ/095	BAAN Comments of INQ/085
INQ/096	NSC Comments of INQ/085
INQ/097	BAL Comments of INQ/085
INQ/098	NSC Note on Outstanding Transport Information
INQ/099	BAL Response to INQ/098
INQ/100	NSC Summary of Impacts Table
INQ/101	BAL Planning Balance Summary
INQ/102	SL&PS Closing Statement
INQ/103	BALPA Closing Statement
INQ/104	XRE Closing Statement
INQ/105	PCAA Closing Statement
INQ/106	NSC Closing Statement in full
INQ/106-1	NSC Closing as read
INQ/107	BAL Closing Statement
INQ/108	BAAN Closing Statement

DOCUMENTS SUBMITTED AFTER THE CLOSE OF INQUIRY

INQ/109	List of Authorities
INQ/110	Legal submissions by BAAN
INQ/111	Legal submissions by PCCA
INQ/112	North Somerset final schedule of Conditions
INQ/113	North Somerset Final Statement of CIL Compliance
INQ/114	BAL final set of proposed Planning Conditions
INQ/115	Signed Agreed SoCG Part one
INQ/116	Signed Agreed SoCG Part one
INQ/117	Section 106 Agreement
INQ/118	Unilateral Undertaking
INQ/119	BAL CIL Compliance Statement
INQ/120	Case law bundle
INQ/121-0	BAL Costs Application
INQ/121-1	BAL Costs Application Appendices
INQ/122	NSC Costs Application
INQ/123	BAL Response to NSC Costs Application
INQ/124	NSC Response to BAL Costs Application
INQ/125	NSC Reply to BAL Costs Application Response
INQ/126	Net Zero Strategy: Build Back Greener 2021
INQ/127	NSC response to Build Back Greener
INQ/128	BAAN response to Build Back Greener
INQ/129	PCAA response to Build Back Greener
INQ/130	BAL response to Build Back Greener
INQ/131	NSC note regarding COP26, Environment Act 2021 and Luton Airport expansion
INQ/132	BAAN note on COP26 key outcomes and Luton Airport decision
INQ/133	PCAA note on COP26 and Luton Airport expansion decision
INQ/134	BAL notes regarding COP26 and Luton Airport expansion decision
INQ/135	Climate Change Committee. COP26 Key outcomes and next steps for the UK
INQ/136	Submission from BAAN in relation to Southampton Airport
INQ/137	PCAA response to INQ/136
INQ/138	NSC response to INQ/136
INQ/139	BAL response to INQ/136

CORE DOCUMENTS

Core Documents available at:

<https://gateleyhamer-pi.com/en-gb/bristol-airport/library-documents/appeal-core-documents/>