Bristol Airport Limited

Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum

Planning Statement

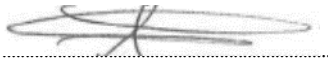
Report for

Elizabeth Higgins
Planning Manager
Bristol Airport Ltd
Bristol Airport
Bristol
BS48 3DY

Main contributors

Alex Melling
Clive Harridge

Issued by



Alex Melling

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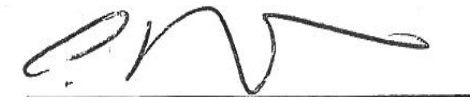

Clive Harridge

Wood

Redcliff Quay
120 Redcliff Street
Bristol BS1 6HU
United Kingdom
Tel +44 (0)117 317 8950

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Document revisions

No.	Details	Date
1	Draft Planning Statement	22.11.18
2	Final Draft Planning Statement	05.12.18
3	Final Planning Statement	05.12.18

Contents

1. Introduction

1.1 Overview

1.1.1 This Planning Statement been prepared in support of an outline planning application (the 'application') by Bristol Airport Limited (BAL) to North Somerset Council (NSC). The application seeks permission for the development of Bristol Airport to accommodate 12 million passengers per annum (mppa) including the associated infrastructure and operational changes necessary to accommodate passenger growth beyond the current permitted cap of 10 mppa (the 'Proposed Development').

1.1.2 Bristol Airport is located on the A38, approximately 11km south-west of Bristol city centre (see the site location plan at **Appendix A**) and within the local authority administrative area of NSC. Operated by BAL, it is the principal airport and main international gateway for the South West of England and South Wales[1] and in 2017, Bristol Airport handled over 8.2 million passengers making it the ninth busiest UK airport and the third largest regional airport in England[2]. Leading low-cost, charter and full-service airlines currently fly from Bristol Airport to over 120 destinations across 34 countries[3].

1.1.3 BAL was granted outline planning permission by NSC on 16 February 2011 for the expansion of Bristol Airport to accommodate 10 mppa[4]. Between 2010 and 2017, investment totalling over £160 million has been made in a significant upgrade of facilities and infrastructure at the airport and passenger numbers have grown by over 40 %, from 5.8 mppa to 8.2 mppa. BAL currently forecasts that passenger demand will reach 10 mppa by 2021, beyond which passenger traffic is projected to rise further to 15 mppa by the mid-2030s and 20 mppa by the mid-2040s.

1.1.4 To meet passenger demand both now and into the future, BAL is currently preparing a new Master Plan. The Master Plan will set out a strategy for phased growth to meet the forecast level of passenger demand by the mid-2040s; in doing so, it will ensure that Bristol Airport contributes fully to growing national airport capacity, delivering increased connectivity and supporting economic prosperity in the South West and South Wales regions. As part of the approach set out in the emerging Master Plan to meeting future passenger demand beyond 2021, BAL is seeking planning consent for an initial phase of growth to 12 mppa. This will allow for growth in passenger numbers up to at least the mid-2020s.

1.1.5 The Proposed Development comprises of a number of components, including:

- 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, pre-board zones (PBZs) and a 5m high acoustic timber fence;
- Construction of a new service yard directly north of the western walkway;

[1] York Aviation (2018) *Bristol Airport Limited, Part 1 (Strategic) Economic Impact Assessment of Bristol Airport. Final Report*.
[2] Civil Aviation Authority (2017) *Size of Reporting Airport January 2017 – December 2017. Comparison with previous year.* Available from: https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Airport_stats/Airport-data-2017-12/Table_01_Size_of_UK_Airports.pdf [Accessed March 2018]
[3] BAL (2017) *Your airport: your views. A world of opportunities. Preparing a new Master Plan: Public consultation*. Available from: https://www.bristolairportfuture.com/consultation [Accessed August 2018]
[4] Application reference 09/P/1020/OT2.

- Car parking including erection of a multi-storey car park (MSCP) providing approximately 2,150 spaces (Phase 3) and wind turbines atop, extension to the Silver Zone car park to provide approximately 2,700 spaces (Phase 2) and year-round use of the existing Silver Zone car park extension (Phase 1);
- 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 rolling annualised (for two consecutive seasons) cap of 4,000 night flights between the hours of 23:30 and 06:00, without any cap on the number of night-time flights during the British Summer and Winter Seasons respectively, and revisions to the use of aircraft stand numbers 38 and 39 so that they operate under the same terms as stands 33-37; such operational changes are to commence from the grant of planning permission.

1.1.6 This Planning Statement sets out the context for BAL's proposals including information on the development site (the 'application site') and the Proposed Development, before summarising the relevant Development Plan policies and other material considerations against which the application will be determined. The Planning Statement then assesses the compliance of the Proposed Development with the relevant policies of the Development Plan and other material considerations, providing reasoned justification for the granting of planning permission.

1.1.7 This Planning Statement has been prepared by Wood Environment & Infrastructure Solutions UK Limited (Wood) on behalf of BAL.

1.2 Statutory Requirements

Determining Planning Applications

1.2.1 The proposed development of Bristol Airport to accommodate 12 mppa will be determined under section 70(2) of the Town and Country Planning Act 1990. The determining authority in this case is NSC, as the local planning authority (LPA).

Form and Content of the Application

1.2.2 The application and supporting documentation have been prepared to ensure sufficient information is provided to enable NSC to make an informed decision on the merits of the Proposed Development. The application seeks permission for the necessary infrastructure and associated development to enable an increase in passenger throughput to 12 mppa, which is forecast to be reached by 2026.

1.2.3 Although the application is in outline, all details are included for the proposed extensions to the terminal building and highways improvements on the A38. For those elements of the scheme that are subject to reserved matters approval at a later date, where possible design and size parameters have been defined. This approach has ensured that a robust assessment of the environmental effects of the Proposed Development has been undertaken.

1.2.4 Full details of the application and the exact matters that are submitted for consideration are provided in **Table 1.1**, with a 'tick' identifying that the matter is not reserved, and is therefore to be

considered as part of this application. The site reference corresponds to the site reference plan contained in **Appendix B**.

Table 1.1 Matters for consideration

Site Reference Plan Reference (Appendix B)	Development Component	Scale	Layout	Access	Appearance	Landscaping
C	West terminal extension (Phase 2)	✓	✓	✓	✓	N/A
E and F	South terminal extension with arrivals vertical circulation cores (bussing)	✓	✓	✓	✓	N/A
B	Canopies to the front of the existing terminal building	✓	✓	N/A	✓	×
G	Walkway to east pier with vertical circulation core to 1 PBZ	×	×	N/A	×	N/A
H	East pier with vertical circulation cores and 5 no. PBZs	×	×	N/A	×	N/A
P	Acoustic fence	×	×	N/A	×	N/A
A	MSCP (Phase 3)	×	×	×	×	×
D	Service yard	×	×	×	×	×
N	Gyratory road with internal surface car parking	×	×	×	×	×
O	Highway improvements	✓	✓	✓	✓	N/A
J	Taxiway widening and fillets	×	×	N/A	×	N/A
K	Eastern taxiway link	×	×	N/A	×	N/A
L	Year-round use of Silver Zone car park extension (Phase 1) (operational change with permanent fixed lighting and CCTV)	×	×	N/A	×	N/A
M	Silver Zone car park extension (Phase 2)	×	×	×	×	×
N/A	Operational change to night flight regime	N/A	N/A	N/A	N/A	N/A
I	Operational change to stands 38 and 39	N/A	N/A	N/A	N/A	N/A

✓ identifies that the matter is submitted for consideration.

× identifies that the matter is reserved for a subsequent reserved matter application.

n/a identifies that the matter is not applicable to the component.

1.2.5 The planning application provides for all of the elements that are required for Bristol Airport to accommodate a throughput of 12 mppa. For some elements of the scheme, detailed design is on-going and therefore matters of scale, layout, access, appearance and landscaping are reserved.

1.2.6 With specific regard to landscaping, a Landscape, Visual and Ecological Mitigation Masterplan is submitted with the application (see the Design and Access Statement for further information). However, for some elements of the scheme, landscaping is a reserved matter with further, component-specific details to be provided.

1.2.7 As part of the planning application, BAL is seeking operational changes to the use of the existing Silver Zone car park extension (Phase 1), the night flight regime and the use of stands 38 and 39. With the exception of the proposed year-round use of the existing Silver Zone car park extension (Phase 1), which will require permanent lighting and CCTV, these changes will not necessitate any built development and in consequence, no matters are reserved in respect of these components of the scheme.

Timescale for reserved matters applications

1.2.8 For those parts of the scheme which are submitted with elements reserved, their development cannot proceed until the subsequent reserved matters applications are approved. Given the complexity of the Proposed Development, BAL is proposing that the period for submission of the reserved matters applications is eight years from approval. An appropriately worded condition is proposed to reflect this (see **Appendix D**).

Environmental Impact Assessment

1.2.9 BAL has considered the requirement for an Environmental Impact Assessment (EIA) in accordance with Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017[5] ('the EIA Regulations'). Having considered the potential environmental impacts of the Proposed Development, BAL is of the view that the Proposed Development constitutes 'EIA development' and has therefore undertaken an EIA in support of the planning application. By following the full EIA process, BAL has ensured that any potentially significant effects on the environment resulting from the expansion of Bristol Airport to accommodate 12 mppa are considered and, where appropriate, mitigated.

1.2.10 In accordance with good practice, a Scoping Report[6] was prepared to identify the potential likely significant environmental effects of the Proposed Development and BAL sought a scoping opinion from NSC on the proposed approach to the assessment of these effects. The Scoping Report was issued to NSC on 20 June 2018, together with a request for a scoping opinion under Regulation 15 of the EIA Regulations. NSC's scoping opinion was subsequently adopted on 6 August 2018.

1.2.11 In accordance with the approach set out in the Scoping Report, which has been revised to take into account NSC's scoping opinion and feedback from stakeholders, an Environmental Statement[7] (ES) has been prepared and is submitted alongside this Planning Statement. The ES includes an assessment of the likely significant environmental effects of the Proposed Development.

[5] S.I 2017 No. 571.
[6] Wood (2018) *Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum - Environmental Impact Assessment: Scoping Report*.
[7] Wood (2018) *Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum -Environmental Impact Assessment: Environmental Statement*.

Habitats Regulations Assessment

1.2.12 In addition to the assessment of potential environmental effects under the EIA Regulations, there is a requirement under The Conservation of Habitats and Species Regulations 2017 (SI 2017 No. 1012)[8] (the 'Habitats Regulations') to undertake a screening exercise to determine whether any European sites[9] are likely to be significantly affected by the Proposed Development, either alone or in combination with other projects and, if so, whether these effects will result in any adverse effects on the European site's integrity. If significant effects are likely, there will be a need for an Appropriate Assessment to be carried out. The screening, and any subsequent Appropriate Assessment, form part of what is known as the Habitats Regulations Assessment (HRA) process.

1.2.13 Screening and any subsequent Appropriate Assessment will be undertaken by NSC (as the 'competent authority' for HRA), drawing upon information about the likely adverse effects of the Proposed Development on the integrity of European sites that has been provided by BAL. In undertaking its assessment, NSC is required to consult with Natural England and to facilitate the HRA process; BAL will also liaise with Natural England, and other interested parties as appropriate.

1.3 Pre-application Consultation

1.3.1 In March 2015, NSC published its Statement of Community Involvement[10] (SCI) which explains how the Council will engage with the community in the preparation of development plans and in the consideration of planning applications. The SCI encourages applicants to hold pre-application discussions with the community and parish councils.

1.3.2 In developing its proposals, BAL has had regard to the requirements of the SCI and undertaken extensive pre-application consultation. A Consultation Report[11] providing an overview of the consultation activities undertaken, a summary of the comments received and BAL's response to the main issues raised accompanies the planning application; a summary of the pre-application consultation is provided below.

Local Planning Authority Consultation

1.3.3 Pre-application consultation has been undertaken with NSC officers and Members. Regular pre-application meetings with NSC have been held throughout the preparation of the planning application for the Proposed Development. The meetings have been used to discuss BAL's expansion proposals and, in particular, to:

- Agree the scope of assessments to be undertaken in support of the planning application including in relation to the EIA, transport and economic impacts;
- Consider the key planning issues and discuss possible mitigation measures including the obligations that form the proposed Section 106 Agreement Heads of Terms; and

[8] The Conservation of Habitats and Species Regulations 2017. Available from: http://www.legislation.gov.uk/uksi/2017/1012/contents/made [Accessed August 2018].
[9] Strictly, 'European sites' are: any Special Area of Conservation (SAC) from the point at which the European Commission and the UK Government agree the site as a 'Site of Community Importance' (SCI); any classified Special Protection Area (SPA); any candidate SAC (cSAC); and (exceptionally) any other site or area that the Commission believes should be considered as an SAC but which has not been identified by the Government. However, the term is also commonly used when referring to potential SPAs (pSPAs), to which the provisions of Article 4(4) of Directive 2009/147/EC (the 'new wild birds directive') apply; and to possible SACs (pSACs) and listed Ramsar Sites, to which the provisions of the Habitats Regulations are applied a matter of Government policy (NPPF para. 176) when considering development proposals that may affect them. "European site" is therefore used in this report in its broadest sense, as an umbrella term for all of the above designated sites.
[10] NSC (2015) *Statement of Community Involvement*. Available from https://www.n-somerset.gov.uk/wp-content/uploads/2015/11/statement-of-community-involvement.pdf [Accessed October 2018].
[11] Wood (2018) *Enabling Growth to 12mppa Public Consultation: Consultation Feedback Report*.

- Provide feedback on the pre-application consultation process.

Master Plan Consultation

1.3.4 As highlighted in **Section 1.1**, BAL is currently preparing a new Master Plan that will set out a strategy for phased growth to meet the forecast level of passenger demand by the mid-2040s. BAL's aspiration to grow Bristol Airport steadily over the coming decades to match rising passenger demand, the issues the airport currently faces and indicative scenarios for a 20 mppa capacity airport were set out in an initial discussion document, 'Your Airport, your views'[3], that was subject to public consultation between 16 November 2017 and 26 January 2018.

1.3.5 Responses received to the initial consultation[12] informed the second stage of Master Plan consultation undertaken between 14 May and 6 July 2018. 'Your airport: your views'[13] formed the main consultation document and described a phased approach for continued growth of Bristol Airport to 20 mppa. The consultation document included, and sought views on, BAL's proposals for the development of the airport to 12 mppa as a first phase in the longer term growth of Bristol Airport. Alongside publication of the main consultation document, the following activities were undertaken:

- Launch of a dedicated consultation website[14] providing details of the timescales for the consultation, an introductory video, downloadable versions of all consultation documents, clear signposts to further information, details of the time and date of consultation exhibitions, and instructions on how to provide feedback;
- Publication of a feedback form comprising of four questions relating to the 12 mppa proposals that was capable of being completed on-line via the website;
- Notifications to consultees including a letter and email alert;
- Advertising and publicity including a press release, newspaper and online advertisements, social media and advertising within the airport itself;
- Establishment of public information points;
- Manned exhibitions at 20 locations providing an opportunity for members of the public to view, discuss and comment on BAL's proposals for a 12 mppa capacity airport.

1.3.6 A total of 971 responses were received during the consultation, both for and against the expansion of the airport, and a wide range of issues were raised. A summary of the principle issues raised by consultees relevant to the planning application is provided below:

- **Surface access**: access to the airport by road and public transport was the most common issue raised during the consultation. Concerns were expressed with regard to the impact of increased traffic with a number of consultees stating that BAL should seek to enhance the capacity of the road network (including the A38, local roads and links to/from the A38 and M5). A large number of consultees also stated that public transport services to the airport should be enhanced in order to maximise modal shift away from the private car towards sustainable travel.

[12] A summary of the consultation responses received and BAL's response to the issues raised is contained in: *Amec Foster Wheeler (2018) Preparing a new Master Plan: Public Consultation 16 November 2017 to 26 January 2018 Consultation Feedback Report*. Available from: https://static1.squarespace.com/static/59b6667ab7411c6d0214b1f3/t/5af5b401352f533fc4198ddd/1526051853056/Bristol+Airport+Consultation+Report+inc.+appendices+10.05.18.pdf [Accessed October 2018].

[13] BAL (2018) *Your airport: your views. Towards 2050: Master Plan Consultation – Stage II Development Proposals and Options*. Available from https://www.bristolairportfuture.com/ [Accessed June 2018].

[14] See https://www.bristolairportfuture.com/ [Accessed October 2018].

- **Car parking**: linked to surface access, comments were received during the consultation relating to passenger car parking with preferences expressed for both more and less parking provision. Responses included suggestions for park and ride facilities, provision of taxi waiting areas/improved drop-off areas, further multi-storey car parking in the Green Belt inset and underground car parking.
- **Noise and air quality**: a large number of respondents commented that the proposed increase in passenger numbers and associated flights would lead to increased noise levels and emissions to air that could affect the quality of life of residents in local communities. Consultees made several suggestions on this issue including, for example, further monitoring, the banning of night flights, mandatory requirements for airlines to use quieter aircraft and an enhanced noise compensation scheme.
- **Economic impact**: many respondents highlighted the important role Bristol Airport plays in the local and regional economy and that the expansion proposals would deliver both direct and indirect employment opportunities. In this regard, several respondents indicated that BAL should ensure that the benefits of expansion are felt locally (for example, through the use of local supply chains and apprenticeships). However, some consultees questioned the economic benefits of expansion stating that associated outbound tourism would result in the leakage of visitor expenditure from the South West region.
- **Climate Change**: several respondents stated that BAL should seek to minimise greenhouse gas emissions associated with development to 12 mppa including through, for example, the provision of vehicle charging points and renewable energy. The need to reduce waste and to use sustainable products and materials were other suggestions put forward. Some consultees felt that increases in flights would not be compatible with legislation and policy relating to greenhouse gas emissions and Climate Change.
- **Natural environment**: a wide range of issues were raised in respect of the impact of the Proposed Development on biodiversity and landscape and visual amenity. Respondents suggested that proposals should include measures to mitigate impacts on the local environment including through appropriate landscaping and screening.
- **Green Belt**: Some consultees expressed concern with regard to BAL's proposals for development within the Green Belt, although others recognised that some development in the Green Belt is necessary in order for Bristol Airport to fulfil its role as a key strategic infrastructure location.
- **Passenger experience**: representations about passenger experience fell into the following broad themes: improved supporting facilities such as travellators; construction concerns; the operation of services in light of the increased passenger numbers; the impact of Brexit on airport operations; and charges. Representations also requested improvements to external waiting areas outside the terminal and improved access to planes from the terminal.

1.3.7 Responses to the consultation have helped to refine BAL's proposals for development of the airport to 12 mppa. In particular, they have informed the proposed obligations and commitments that comprise the proposed Section 106 Agreement Heads of Terms and which, broadly, seek to manage and mitigate the adverse impacts of the Proposed Development and enhance the benefits of expansion.

Environmental Impact Assessment and Supporting Documentation

1.3.8 Alongside consultation on the emerging Master Plan, consultation with statutory bodies including Natural England and the Environment Agency and other relevant organisations has been undertaken as part of the EIA process and in preparing supporting documentation. This has

included consultation on the scope of the assessments and ongoing discussions relating to emerging findings.

1.4 Planning Application Submissions

1.4.1 The planning application and supporting documentation have been prepared to ensure sufficient information is provided to enable NSC to make an informed decision on the merits of the proposed development of Bristol Airport to accommodate 12 mppa.

Plans and Drawings

1.4.2 **Table 1.2** identifies the plans which have been submitted in support of the planning application.

Table 1.2 Planning application drawings

Plan reference	Description
17090-00-100-400	Location (Red Line) Plan
17090-00-100-401	Composite Site Plan
17090-00-100-402	Site Reference Plan
17090-00-100-403	Existing Site Plan
17090-00-100-404	Existing Site Plan – North
17090-00-100-405	Existing Site Plan - Central
17090-00-100-406	Existing Site Plan - South
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	Permitted Development Rights Reference Site Plan
17090-00-200-400_00	Ground Floor Plan - Existing
17090-00-200-401_0	Ground Floor Plan – Proposed
17090-10-200-400_00	First Floor Plan – Existing
17090-10-200-401_00	First Floor Plan - Proposed
17090--10-200-400_00	Basement Floor Plan - Existing
17090--10-200-401_00	Basement Floor Plan - Proposed
17090-20-200-400_00	Mezzanine Floor Plan – Existing
17090-20-200-401_00	Mezzanine Floor Plan - Proposed
17090-ZZ-125-400_00	Roof Plan – Existing

Plan reference	Description
17090-ZZ-125-401_00	Roof Plan – Proposed
17090-ZZ-300-400_00	South Terminal Extension & B1, B2 and B3 – Existing Elevations (Sheet 1 of 2)
17090-ZZ-300-401_00	South Terminal Extension & B1, B2 and B3 – Proposed Elevations (Sheet 1 of 2)
17090-ZZ-300-402_00	South Terminal Extension & B1, B2 and B3 – Existing Elevations (Sheet 2 of 2)
17090-ZZ-300-403_00	South Terminal Extension & B1, B2 and B3 – Proposed Elevations (Sheet 2 of 2)
17090-ZZ-300-404_00	West Terminal Extension – Existing Elevations
17090-ZZ-300-405_00	West Terminal Extension – Proposed Elevations
17090-ZZ-300-406_00	Terminal Canopies – Existing Elevations
17090-ZZ-300-407_00	Terminal Canopies – Proposed Elevations
40506-Bri074b	Integrated/embedded Landscape, Visual and Ecology Mitigation Masterplan
C1124-SK-A38-010 10.0	A38 Junction Improvements
C1124-SK-A38-011 1.0	A38 Junction Improvements Vehicle Track Analysis – (Sheet 1 of 3)
C1124-SK-A38-012 1.0	A38 Junction Improvements Vehicle Track Analysis – (Sheet 2 of 3)
C1124-SK-A38-013 1.0	A38 Junction Improvements Vehicle Track Analysis – (Sheet 3 of 3)

Supporting Documentation

1.4.3 As well as the comprehensive set of plans listed in **Table 1.2**, the application is also supported by a range of technical documents to ensure the relevant policies and material issues are considered. These are as follows:

- Planning Statement (this document);
- Bristol Airport Forecast Validation (**Appendix F** to this document);
- Environmental Statement (ES);
- Design and Access Statement;
- Consultation Feedback Report;
- Economic Impact Assessment;
- Transport Assessment;
- Draft Workplace Travel Plan;
- Parking Demand Study;
- Parking Strategy;
- Flood Risk Assessment (included within the ES);
- Foul and Surface Water Drainage Strategy;
- Lighting Impact Assessment;

- BREEAM Pre-Assessment.

1.5 Structure of this Planning Statement

This Planning Statement is structured as follows:

- **Section 2** describes the context for the Proposed Development and establishes the need for the growth of Bristol Airport to 12 mppa;
- **Section 3** provides details of the application site and describes the Proposed Development;
- **Section 4** reviews the current planning policy context for the Proposed Development including relevant Development Plan policies, national planning policy and guidance and other material considerations including national aviation policy;
- **Section 5** assesses the Proposed Development in terms of its compliance with the Development Plan, national planning policy and guidance and other material considerations;
- **Section 6** presents the overall conclusions of the Planning Statement in terms of the Proposed Development's compliance with planning policy and concluding that planning permission for the scheme should be granted.

2. Context for the Proposed Development

2.1 Introduction

2.1.1 This section of the Planning Statement outlines the context for the proposed development of Bristol Airport to accommodate 12 mppa. It describes:

- The airport's recent development history;
- The historic growth of Bristol Airport to 10 mppa;
- The economic importance of Bristol Airport;
- BAL's ongoing commitment to the sustainable growth of Bristol Airport;
- The demand for the Proposed Development in terms of forecast passenger growth;
- National aviation policy support for regional airport growth and making the best use of existing airport capacity; and
- The emerging Bristol Airport Master Plan.

2.2 Recent Development History

Bristol International Airport Masterplan 2006 to 2030

2.2.1 In 2006, BAL (formerly known as Bristol International Airport) published its first Master Plan setting out how the airport should develop. The Master Plan outlined specific plans to cater for up to 9 mppa by 2015 as well as setting out early ideas for a 12.5 mppa capacity airport by 2030.

2011 Planning Permission and Subsequent Consents

2.2.2 In 2011, BAL obtained planning permission from NSC for the major expansion of Bristol Airport to accommodate 10 mppa[15]. The 2011 planning permission consists of a number of project components; these components are listed in **Table 2.1** (with their status indicated). BAL is continuing to implement the existing 10 mppa permission through reserved matters applications. In addition, some non-material amendments (NMA) have been made to the extant 10 mppa consent and additional planning permissions have been issued for related development; these are listed in **Appendix C** and include amendments to the phasing of car parking. It should be noted that the phasing indicated in **Table 2.1** may be subject to change.

[15] Application reference 09/P/1020/OT2.

Table 2.1 Components of the 10 mppa planning permission (09/P/1020/OT2)

10 mppa project component– general description	Individual elements	Completed	Under construction (as at Nov 2018)	Not started (as at Nov 2018)	No longer being implemented
East and west extensions to terminal building	East extension phase 1 East extension phase 2 (*south extension being taken forward as part of the Proposed Development*)* West extension phase 1 West extension phase 2 (*now being taken forward as part of the Proposed* Development with a revised design)	✓		✓	✓
Erection of two-storey walkway providing access and associated facilities to two-storey pier serving aircraft stands	*Now being taken forward as part of the Proposed Development with a revised design.*				
Expansion to aircraft parking areas providing 9 new stands giving 33 stands in total	Nine aircraft stands (partially complete). East apron to also include drainage on land to east.		✓		
Erection of two multi-storey car-parks (including transport interchange)	Multi-storey car park (now Phase 2) and interchange Multi-storey car park (now Phase 1a) Multi-storey car park (now Phase 1b)	✓	✓	✓	
A covered pedestrian link bridge				✓	
Erection of three-storey administration building north-west of terminal with associated parking following demolition of existing administration building	Administration building (to be located to the south of the airport) Demolition of existing administration building		✓		
Construction of replacement underground aviation-fuel storage depot and chiller compound comprising 3no 1,200m³ tanks	Fuel storage depot Chiller compound	✓		✓	
Security control-post				✓	
Alterations to runways and taxiways	Phase 1 to be completed in Q4 2018. Phase 2 to be completed post 2021.			✓ ✓	

10 mppa project component– general description	Individual elements	Completed	Under construction (as at Nov 2018)	Not started (as at Nov 2018)	No longer being implemented
Re-configure internal access roads and widen access at A38 junction	Internal access roads (partially complete) Access at A38 Junction	 ✓		✓	
Upgrade north side surface car-park				✓	
Extend Silver Zone car-park to 12,000 car capacity to include staff-parking within an extension outside the airport boundary to south including replacement reception building	Silver Zone Car Park extension (final phase to be completed comprising a small area of parking west of the southern apron) Replacement reception building	✓		✓	
Additional car-parking area to south to include relocation of car-hire, valet service and associated reception building (car rental consolidation centre (CRCC) – revised design being progressed)	Additional car-parking for rental Relocated car-hire Relocated valet service Relocated reception building		✓ ✓ ✓ ✓		
Replace buildings to south of airfield for flying-club and snow-clearing	Replacement flying club building Replacement snow clearing building	✓ ✓			
Erection of 5m high noise-reduction wall (a revised design is being taken forward)			✓		
3m high acoustic fence around extended Western Apron		✓			
12no. 5m high wind-turbines				✓	
Landscaping		✓			

*Phase 2 of the east terminal extension will no longer be implemented (as the proposed south terminal extension will now be taken forward as part of the Proposed Development as an alternative). This will be secured by Section 106 Agreement.

Ongoing Operational Development

2.2.3 In addition to the above consented development (and unrelated to the Proposed Development), other on-site infrastructure and facilities will be required to respond to Bristol Airport's ongoing operational needs. Some elements have been identified as being needed in the short term to ensure the continued, efficient operation of the airport, and are to be delivered under BAL's permitted development rights, pursuant to Part 8 (Class F) of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (GPDO).

2.2.4 **Table 2.2** lists expected, short-term proposals that are to be progressed under BAL's permitted development rights within the airport's existing operational boundary and indicates those that are expected to be either completed or under construction at November 2018. This may be subject to change depending on operational requirements.

Table 2.2 Proposals to be progressed under BAL's permitted development rights

Proposal	Status (at Nov 2018)
New airline office building and main gate extension	Not started
Reconfiguration of access road (southern area)	Under construction
New administration building with visitor and staff car parking (relocation)	Under construction
First phase of eastern walkway with integrated coaching gates	Not started
Stone Farm car parking and new bus access	Not started
New perimeter road (central area)	Not started
Radar site car parking	Not started
Strategic sequential radar (SSR) monopole tower	Not started
West walkway coaching gates and associated new bussing pick up road (existing substation to be repositioned).	Not started

2.2.5 In addition to the operational development listed in **Tables 2.1 and 2.2** above, BAL was granted planning permission in October 2018 for an extension to an existing food and beverage area on the mezzanine level of the terminal building[16] and for the temporary year-round use of the existing Silver Zone car park extension (Phase 1) for a period of one year, enabling its operation in the winter 2018/19 period[17].

2.3 Growth of Bristol Airport to 10 mppa

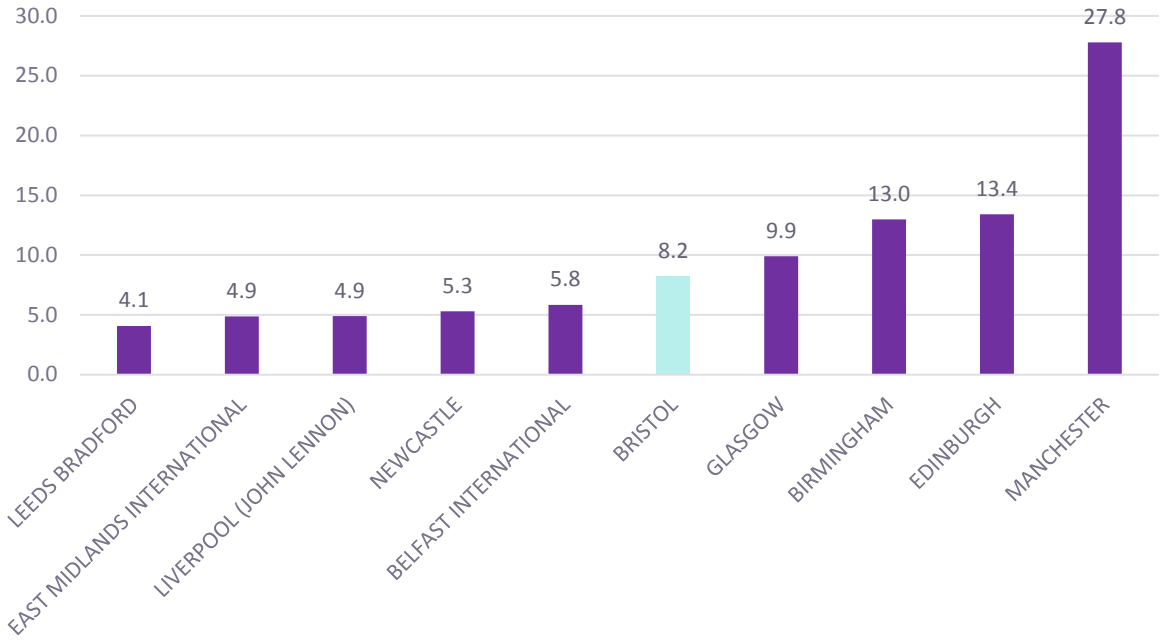
2.3.1 Bristol Airport opened at Lulsgate Bottom in May 1957 on the site of a former World War II experimental fighter station, RAF Lulsgate Bottom. For six decades, Bristol Airport has served passengers travelling to and from the South West of England and South Wales, enabled by ongoing investment in infrastructure, services and facilities.

2.3.2 As set out above, BAL is continuing to implement the extant 2011 consent as the airport grows towards 10 mppa and between 2010 and 2017, investment totalling over £160 million has been

[16] Reference 18/P/4206/FUL.
[17] Reference 18/P/4007/FUL.

made in a significant upgrade of facilities and infrastructure at Bristol Airport. Today, the airport handles more than 8 mppa, making it the fifth largest regional airport in the UK and the third largest regional airport[18] in England (see **Figure 2.1**).

Figure 2.1 Top 10 UK regional airports by passengers in 2017 (millions)



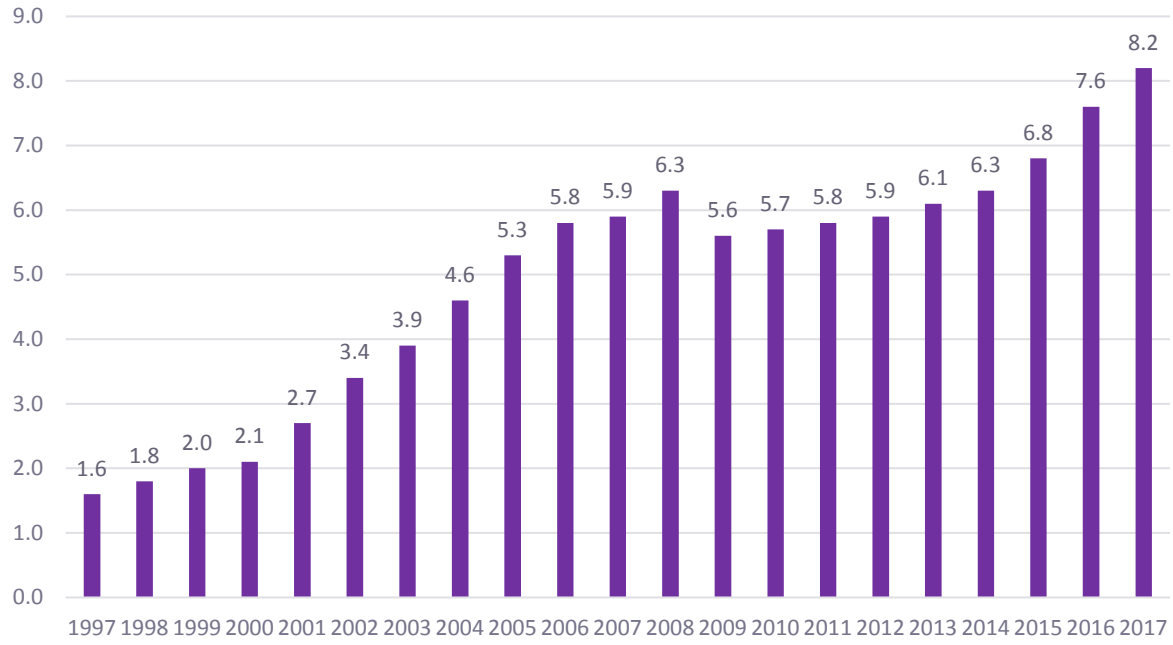
Source: CAA Statistics

Passenger Demand

2.3.3 Bristol Airport has grown every year except one since 1989 and following a small dip in 2008/09 (reflecting the global financial crisis) is now in its eighth successive year of growth, with passenger numbers increasing by 40% (from 5.8 mppa to 8.2 mppa) between 2011 and 2017 (refer to **Figure 2.2**). This reflects growth in demand within the South West region as well as the UK as a whole and has been supported by the continued development of the airport.

[18] Regional airports in the UK include Southampton, Norwich, Southend, Bristol, Cardiff, Bournemouth, Birmingham, East Midlands, Coventry, Manchester, Newcastle, Liverpool, Leeds, Bradford, Durham Tees Valley, Doncaster – Sheffield, Humberside, Blackpool, Glasgow, Edinburgh, Aberdeen, Prestwick, Inverness, Belfast International and Belfast City.

Figure 2.2 Bristol Airport passenger traffic 1997-2017

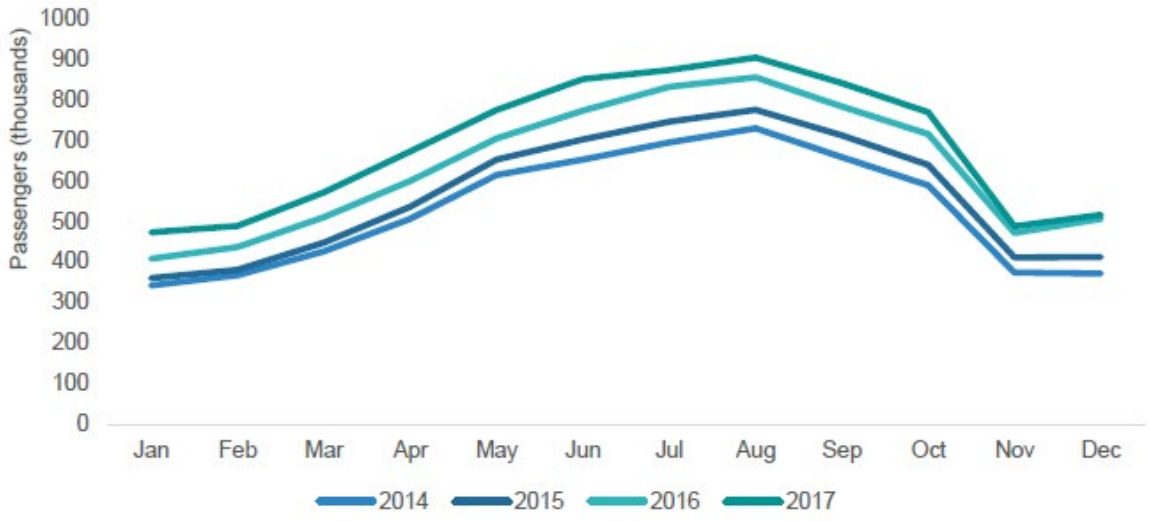


Source: CAA Statistics

2.3.4 The majority of Bristol Airport passengers travel internationally (over 80% during 2017) and this is a continuation of historical trends observed at the airport over the last 30 years. International traffic has accounted for over 80% of the total since 1999, growing in recent years at an average of 5.5% per annum (2009-2017) compared to 2.3% for domestic traffic.

2.3.5 The airport experiences higher passenger demand during the summer season (April-October), as illustrated by **Figure 2.3**. Over the previous four years (2013-2017), approximately 70% of passenger throughput has occurred between these months; however, this share has dropped marginally over the last three years (70.3% in 2015 to 69.1% in 2017) and in the future, BAL is likely to continue exploring ways in which traffic can be grown in the shoulder seasons to make best use of its facilities.

Figure 2.3 Bristol Airport passenger throughput by month 2014-2017



Source: CAA

Catchment

2.3.6 Bristol Airport is a regional airport, serving a regional catchment including urban and rural areas, across the South West. The airport's main catchment area comprises North Somerset, the West of England (which includes North Somerset, City of Bristol, Bath & North East Somerset, and South Gloucestershire), as well as the wider South West region and South Wales.

2.3.7 Bristol Airport operates in a competitive market, with a number of other airports drawing passengers from the South West, including nearby Cardiff Airport, but also London Heathrow and Gatwick which results in leakage from the region. According to the latest CAA Passenger Survey available[19], in 2015 the airport's market penetration across the South West was relatively strong in domestic and short haul markets (68% and 46% respectively).

Passenger Profile

2.3.8 In common with all UK airports, Bristol Airport serves UK originating and overseas originating passengers and those travelling for both business and leisure (including passengers visiting friends and family). As shown in **Table 2.3**, leisure passengers make up the largest proportion of travellers at the airport (83.5%), with UK passengers the greater part of this (70.8% of total passengers). 16.5% of passengers were travelling on business in 2015, with the largest numbers travelling to international short haul destinations. 16.3% of passengers passing through the airport were foreign residents visiting the UK.

2.3.9 Whilst business and foreign passengers make up a lower proportion of total passengers, year-round certainty of connectivity is an important requirement to service these passengers and grow the proportions.

Table 2.3 Types of passengers at Bristol Airport in 2015

		Scheduled Domestic	Scheduled International	Scheduled Total	Charter International	Total
UK	Business	7.4%	5.5%	**12.9%**	0.0%	**12.9%**
	Leisure	11.2%	48.7%	**60.0%**	10.8%	**70.8%**
	Sub-Total	*18.6%*	*54.2%*	***72.8%***	*10.8%*	***83.7%***
Foreign	Business	0.1%	3.5%	**3.6%**	0.0%	**3.6%**
	Leisure	0.4%	12.1%	**12.5%**	0.3%	**12.7%**
	Sub-Total	*0.5%*	*15.5%*	***16.1%***	*0.3%*	***16.3%***
Total		**19.2%**	**69.7%**	**88.9%**	**11.1%**	**100%**

Source: CAA Passenger Survey 2015

[19] CAA (undated) *CAA Passenger Survey Report 2015*. Available from https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Passenger_survey/CAA%20Passenger%20survey%20report%202015.pdf [Accessed November 2018].

Destinations

2.3.10 Bristol Airport is the principal airport and main international gateway for the South West of England and South Wales. Leading low-cost, charter and full-service airlines currently fly from Bristol Airport to over 120 destinations across 34 countries. Most of the airport's route network is to western European destinations (Spain, France, Italy and Ireland being the top four countries) and the airport offers connections to European hubs such as Amsterdam, Brussels and Frankfurt which provide business passengers with onward connections to a wide range of global destinations. Domestic services are predominantly to airports in Scotland, Northern Ireland and the Channel Islands. Other destinations served by the airport include eastern Europe (e.g. Poland, Hungary, Czech Republic), and Turkey alongside long-haul destinations including Cape Verde, Mexico, Caribbean and Orlando-Sanford.

2.3.11 In the last two years, Bristol Airport has grown markedly as low-cost and charter operators have launched new routes and based additional aircraft at the airport.

2.3.12 **Table 2.4** highlights the top 10 destinations served from Bristol Airport in 2017.

Table 2.4 Top 10 Destinations by Passengers in 2017

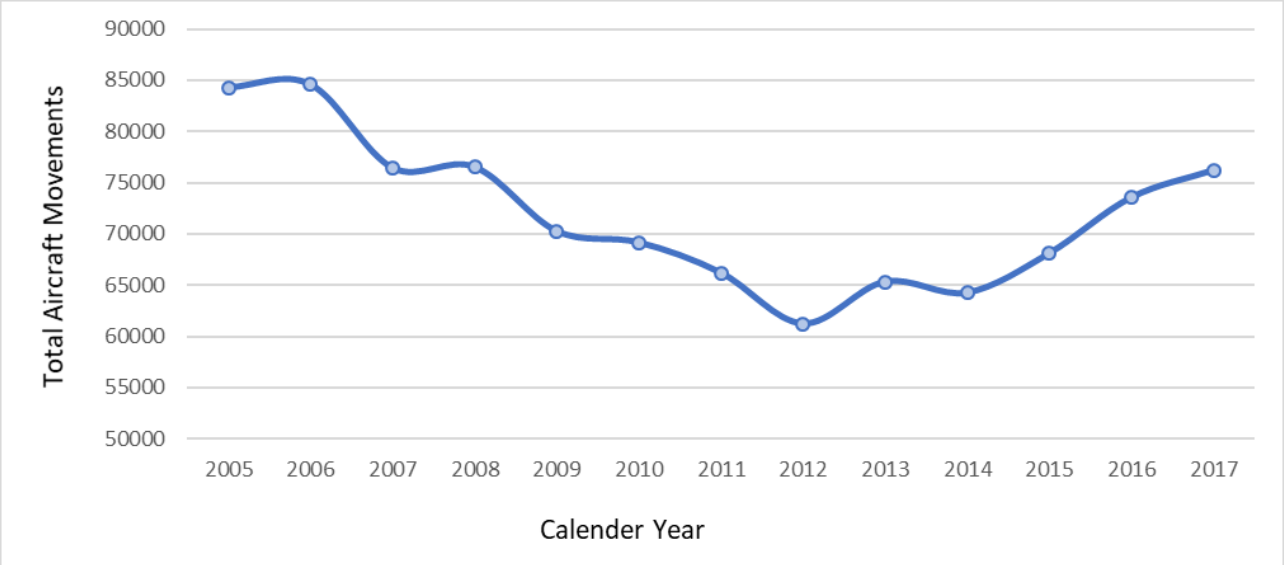
Destinations	Passengers	Average Weekly Flights	Airlines
Dublin	429,794	39	Ryanair & Aer Lingus
Amsterdam	410,341	39	KLM & easyJet
Edinburgh	393,853	25	easyJet
Malaga	347,703	21	British Airways, easyJet, Ryanair & Tui Airways
Palma De Mallorca	341,400	21	British Airways, easyJet, Ryanair, Tui Airways & Thomas Cook
Alicante	331,043	19	easyJet, Ryanair, Tui Airways
Glasgow	307,010	21	easyJet
Faro	304,906	18	easyJet, Ryanair, Tui Airways
Belfast International	261,249	17	easyJet
Geneva	232,800	14	easyJet & Thomas Cook

Source: CAA Statistics & OAG

Aircraft Movements

2.3.13 There was a total of 76,199 aircraft movements in 2017 (including general aviation), an increase of 10,020 movements (15.1%) since 2011 (see **Figure 2.4**); a breakdown of aircraft movements in 2016 and 2017 is provided in **Table 2.5** below. The average number of passengers per aircraft movement has also increased during this period, from 109.5 in 2011 to 126.6 in 2017.

Figure 2.4 Bristol Airport aircraft movements 2005 to 2017



Source: CAA Statistics

Table 2.5 Breakdown of aircraft traffic movements (2016 and 2017)

ATMs*	EU	Non-EU International	Domestic	Total
2017	49,064	3,277	11,522	63,863
2016	45,761	3,079	12,039	60,879

ATMs*	Scheduled	Charter	Total
2017	59,234	4,629	63,863
2016	56,524	4,542	61,066

Source: CAA Statistics

*Air transport movements (ATMs) are landings or take-offs of aircraft engaged on the transport of passengers, cargo or mail on commercial terms. As per CAA descriptions, these figures do not include i.e. positioning, training, military, emergency, private, official/state movements & business movements

2.3.14 The extant permission for development of Bristol Airport to accommodate 10 mppa limits night flying by condition during the core night period (23:30-06:00) to 4,000 movements per year (3,000 in summer, 1,000 in winter based on British Summer Time) and during the shoulder periods (23:00-23:30 and 06:00-07:00) to 10,500 movements per year. BAL is seeking to merge summer and winter movement limits to an annual (across two consecutive seasons) 4,000 movement limit. This is to provide the airport greater flexibility without the need to request any additional movement allowance during the night period.

2.3.15 Night flying demand is driven mainly by short haul operations by aircraft based at the airport. These aircraft are based overnight at the airport with the majority of first departures between 06:00 and 07:30; the aircraft will typically perform two to three return trips before last arrival at Bristol Airport in the late evening. A proportion of these late evening arrivals are after 23:30 in the night period and there are also a small number of long-haul arrivals in the night period, typically in the early morning before 06:00. This pattern of night flying demand is typical of UK-based European

short haul operations. Winter season night flying demand is much lower than in a summer season as airlines operate aircraft with a lower level of utilisation in the off-peak season.

2.3.16 Charter operations have been an integral part of the airport's operation for over 50 years. They remain a key and vital part of the airport's range of services with significant based operations. The main charter operators, TUI and Thomas Cook, have expanded their services with additional based aircraft in recent years. Both operators continue to utilise their aircraft on a similar basis dating back many years with aircraft operating two to three rotations per day. A typical daily operation would see aircraft departing between 0600-0800 hours in the morning, operating services through the day before completing daily aircraft operations during the night time period.

2.3.17 Use of available night movements in summer seasons has grown since 2013 as the airport's traffic recovered from the recession of 2008. Summer 2017 use[20] was 99.7% of the available 3,000 night movements, whereas winter season utilisation was less than 30%; on average in recent years, 90% of annual night flights occurred in a summer season. In response to growing night movement demand, and to mitigate the potential risk of breaching the summer limits, Bristol Airport proactively sought designation as a 'slot coordinated' airport under the EU Slot Regulations[21] by the Department for Transport (DfT) for the period 23:00 to 07:00 in summer seasons. This means that all night flights require the prior allocation of a slot before operating at the airport, providing an effective mechanism to control night flying within the planning condition limits.

2.3.18 On its own, the change in movements could be deemed to have an impact with the potential of increased summer night movements. Therefore, to actively manage the noise associated with night flying, such movements are also regulated by a Quota Count (QC) system which limits activities to a QC budget based on aircraft noise. The QC budget, as conditioned under the extant 10 mppa consent, allows for a QC budget of 1,260 during the summer month (again based on British Summer Time) and 900 during the winter.

2.3.19 In summer 2017, the quota count used was 1522.5. As noted, the summer QC allowance is 1,260; however, the night flying restrictions allow for overrun from the season before and after. In this case, 10% of the previous season (89) was borrowed. Another 10% (90) was borrowed from the season to come (winter 2017/18). This left a shortfall of 83.5 QC points meaning that a further 167 QC points were required from the winter 2017/18 season because to offset 83.5 QC points (at a 1:2 ratio), 167 were required. As a result, the winter season QC budget for 2017/18 has been reduced from 900 to 643.

2.3.20 Under this planning application, no changes to the QC budgets are being sought. Therefore, even though BAL is seeking more flexibility in terms of actual night movements, by retaining the QC budgets as per the extant 10 mppa consent, it will directly incentivise quieter, modern aircraft fleet and enable sustainable growth. Full details of both the night movement and QC schemes can be found in the accompanying Mott McDonald Forecast Validation report (**Appendix F**).

2.4 The Economic Importance of Bristol Airport

2.4.1 Bristol Airport is a significant economic driver within North Somerset, the West of England sub-region, the South West region and South Wales. Around 3,960 people currently work on-site at the airport, which equates to approximately 3,480 full time equivalents (FTEs); including indirect and induced jobs, this increases to an estimated 8,200 FTEs across the South West region[22]. Bristol Airport also has a wider economic role in supporting and facilitating prosperity in other sectors.

[20] At the time of writing, summer 2018 data was not available.
[21] Council Regulation (EEC) 95/93.
[22] York Aviation (2018) *Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum: Economic Impact Assessment*.

The connectivity provided by the airport enables the flow of trade, investment, people and knowledge that are central to globally successful regions. Bristol Airport also plays a vital role in supporting the tourism sector, providing easy access to overseas markets, notably Germany, Spain, the Irish Republic, Italy and France. In total, it is estimated that Bristol Airport generates £1.7 billion of Gross Value Added (GVA)[23] in the South West economy (as at 2018).

2.4.2 Ensuring that Bristol Airport is able to meet current and forecast passenger demand is therefore essential if it is to continue to fully support local, regional and national economic growth. **Section 5.4** of this Planning Statement considers further the economic impacts of expansion to 12 mppa.

2.5 Sustainable Growth

2.5.1 In implementing its proposals for expansion of Bristol Airport to 10 mppa, BAL has worked closely with local communities, NSC and other stakeholders to deliver sustainable growth. Through existing Section 106 Agreement commitments and other mechanisms, BAL has sought to:

- **Manage and mitigate the environmental impacts of its operations**: BAL's expansion proposals to 10 mppa included a range of measures designed to minimise the impact of the airport's development on biodiversity, the local landscape and communities. BAL has also been working with local communities and airlines for a number of years to control the disruptive effects of noise. It encourages partner airlines to implement continuous descent approaches (CDAs) wherever possible (CDAs reduce noise and fuel consumption on arrival) and also manages and mitigates noise through its Noise Action Plan. Since 2012, BAL has provided over £200,000 in noise insulation grants in order to enhance sound insulation at residential properties. BAL regulatory monitors the environmental performance of the airport with the results published in its Annual Operations Monitoring Report.
- **Enhance surface access**: In accordance with its existing Airport Surface Access Strategy (ASAS), BAL has invested significantly to improve transport links to Bristol Airport. This has included major highways investment, including a contribution of over £4.7 million towards the South Bristol Link (SBL) and MetroBus Ashton Vale to Temple Meads (AVTM) route. The SBL opened in January 2017 and the AVTM opened in September 2018. In addition to strategic highway improvements, there have also been improvements to the local road network and significant enhancements to public transport connections in order to encourage a modal shift towards more sustainable modes of travel. BAL is also currently working in close collaboration with NSC, Somerset County Council, West of England Combined Authority (WECA), Highways England, and Network Rail on a detailed assessment of highway and rail options between Bristol, the airport, Weston-super-Mare and the M5. The primary objective of the study is to inform future bids to central Government for major investment in regional infrastructure.
- **Deliver local community benefits**: BAL has established an Environmental Improvement Fund that has donated more than £800,000 to the local communities most affected by Bristol Airport's operations. BAL also works closely with local schools, charities and other organisations and offers work placements. In January 2019, BAL will be running its first Meet the Buyer event which is designed to encourage local procurement.
- **Reduce the airport's carbon footprint**: BAL's ambition is to be carbon neutral by 2030. BAL has a positive track record in terms of emissions performance, gaining level 2 ACI Carbon Accreditation in 2018. This has been driven through not only employee engagement to reduce energy and needless emissions (such as vehicle idling) but also significant investment in energy management including metering; solar photovoltaics on site, installation of centrally controlled

[23] GVA is the measure of the value of goods and services produced in an area, industry or sector of an economy.

core airport systems such as baggage handling, heating and cooling and lighting controls coupled with LED replacement schemes.

2.5.2 BAL's commitment to sustainable growth underpins its proposals for the future expansion of Bristol Airport including the development of the airport to accommodate 12 mppa. In this regard, BAL intends to continue, and where possible enhance, the commitments listed above as part of its proposals to grow the airport to 12 mppa.

2.6 Growth Beyond 10 mppa

International, UK and Regional Perspective

2.6.1 Over the past three decades, the aviation sector has undergone significant expansion providing much greater levels of national and global connectivity. Since the early 1990s, the dominant trend has been one of global growth, with the UK being a significant contributor through its network of national (intercontinental) and regional airports. In 2015, there were 3.3 billion passengers worldwide, an increase of over 2 billion passengers since 1990, with the global demand for seats growing on average by 5.5% annually[24].

2.6.2 In 2017, more than 284 million passengers travelled through UK airports compared to 102 million in 1990; since 2011, the average rate of growth has been circa 4.4% per annum. This increase in demand for air transport is forecast to continue in the period up to 2030 and beyond. With growth constrained by terminal and runway capacities, the DfT forecasts[25] that national demand will rise up to 410 million passengers in 2050. With no such constraints, the DfT forecasts indicate that demand will increase to 495 million passengers in 2050.

2.6.3 Like the UK as a whole, regional airports (and particularly larger regional airports such as Bristol Airport) outside of London have grown strongly. Between 2011 and 2017, regional airports in the UK grew by around a third, from circa 85 million to over 113 million passengers with the rate of this growth being greater than that experienced by the six London airports in recent years (collectively, regional airports experienced a growth of 7.8% in the period 2016-2017, compared to London airports which grew by 4.8%).

2.6.4 In this context, the Government has supported the recommendation of the Airports Commission stating in 'Beyond the horizon: The future of UK aviation'[26] that, if the UK is to continue to grow its domestic and international connectivity, and before a new runway is built at Heathrow, then there is a need for existing runways throughout the UK to be used more intensively, making best use of existing capacity. Even with a third runway constructed at Heathrow, DfT forecasts indicate that additional regional airport capacity will be required to meet passenger demand and support economic development.

[24] Parliament UK (2017) *Aviation Sector Report*. Available from: https://www.parliament.uk/documents/commons-committees/Exiting-the-European-Union/17-19/Sectoral%20Analyses/5-Sectoral-Analyses-Aviation-Report.pdf [Accessed November 2018].
[25] DfT (2017) *UK Aviation Forecasts: Moving Britain Ahead*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/674749/uk-aviation-forecasts-2017.pdf [Accessed November 2018].
[26] DfT (2017) *Beyond the horizon: The future of UK aviation*. Available from: https://www.gov.uk/government/consultations/a-new-aviation-strategy-for-the-uk-call-for-evidence [Accessed July 2018].

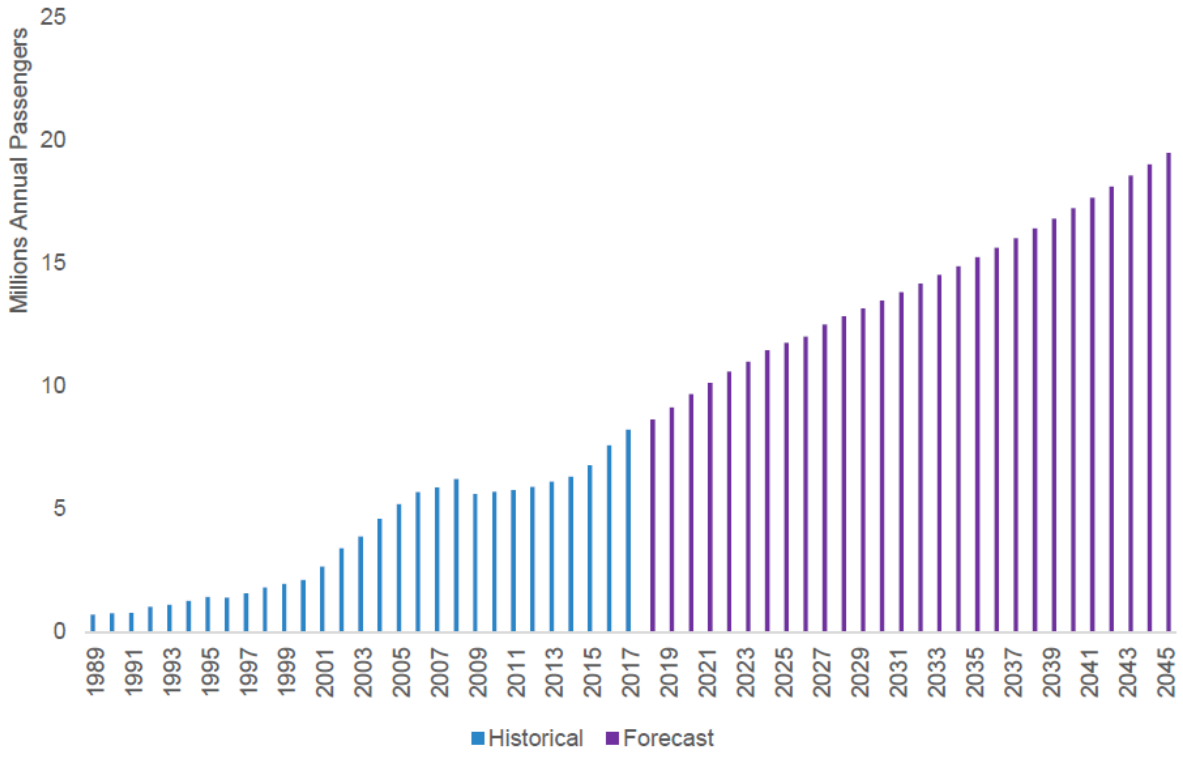
Bristol Airport

Passenger growth

2.6.5 BAL has undertaken a forecast study (independently verified by Mott MacDonald – see **Appendix F**) of expected passenger traffic growth for the period 2018 to 2045, blending a top-down econometric model with a bottom-up, airline-by-airline approach[27]. The forecast indicates that passenger demand will reach 10 mppa by 2021 and beyond 2021, passenger traffic is projected to rise further to 12 mppa by 2026, 15 mppa by the mid-2030s and circa 20 mppa by 2045 (see **Figure 2.5**). The drivers of this forecast increase in passenger demand are wide-ranging and include:

- Population and economic growth;
- Growth in airline activity, traffic and the introduction of new routes;
- Accommodation of leaked demand from other regions;
- Growth in the number of aircraft based at Bristol Airport;
- The introduction of larger aircraft with the possibility for more long-haul routes;
- Increased tourism; and
- Growth in passenger throughput outside of the summer peak.

Figure 2.5 Bristol Airport passenger forecast



Source: BAL Forecast

[27] For the period until 2027, BAL has forecast the supply of seat capacity, load factors and based aircraft. This bottom-up approach makes informed assumptions regarding the level of air service that can be expected over the planning period.

2.6.6 In its most recent forecasts for UK aviation demand (published in October 2017), the DfT makes clear that its forecasts should not be used as a detailed guide to the short term performance of individual airports, as commercial and local information is not reflected in its modelling. The DfT forecasts take the current planning restrictions on Bristol Airport into account and therefore do not model growth beyond 10 mppa. This should not be considered a cap on future development should planning permission be granted for growth beyond this threshold.

2.6.7 The DfT forecast demand growth in the South West to increase by some 76% to 2050 with overall market share raising from 4% to 5%. This growth represents an increase in passengers originating in the South West of England from 14.3 mppa in 2016 to 25.1 mppa in 2050. Bristol Airport is significantly the greatest regional contributor to catering for this regional demand with Exeter Airport carrying only 900,000 passenger per annum (ppa) and Cardiff Airport currently limited to 3 mppa with growth expected to 8 mppa by 2030[28].

2.6.8 Notwithstanding this, passenger throughput is limited to 10 mppa by the extant 2011 planning permission and current facilities at Bristol Airport are not capable of accommodating an increase in passenger numbers beyond this cap. In particular, there is no scope for incremental extension of the existing terminal building within BAL's established permitted development rights and a passenger throughput in excess of 10 mppa would require additional car parking as well as surface access improvements. Further airside infrastructure and capacity would also be required including passenger transportation and aircraft servicing. In this context, there is a need for the Proposed Development in order to cater for the latent demand reflected in the BAL and DfT forecasts.

Aircraft movements

2.6.9 Commensurate with the increase in passengers, at 12mppa (2026) there will be a total of 97,393 annual aircraft movements, an increase of 10,420 movements compared to forecast movements at 10 mppa (in both 2021 and 2026).

2.6.10 Whilst the majority of flights will continue to occur in the day time (06:00 to 23:30), the demand for early morning and late evening movements in the summer period is expected to grow. In response, through the application for the Proposed Development, permission is sought for an annual (over two consecutive seasons) cap of 4,000 night movements. Mott MacDonald's analysis of future night flying requirements contained in its Forecast Validation Report indicate that the current limit of 4,000 annual night movements, if expressed as an annual limit with flexible use between summer and winter seasons, is sufficient to accommodate growth to 12 mppa. The use of these slots would continue to be managed independently through the slot allocation process.

2.7 National Aviation Policy

2.7.1 National aviation policy, as set out in the Aviation Policy Framework (APF) and the Government's emerging strategy for aviation, provide support for the growth of regional airports and making the best use of existing airport capacity including at Bristol Airport.

2.7.2 The APF establishes the Government's high-level objectives and policy on aviation. The APF recognises that "*airports in Northern Ireland, Scotland, Wales and English airports outside of London play an important role in UK connectivity*" and there is general support for the growth of regional airports, with the APF highlighting that "*new or more frequent international connections attract*

[28] DfT (2017) *UK Aviation Forecasts: Moving Britain Ahead*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/674749/uk-aviation-forecasts-2017.pdf [Accessed November 2018].

business activity, boosting the economy of the region and providing new opportunities and better access to new markets for existing businesses".

2.7.3 It is identified that, beyond their regional importance, airports outside of the South East of England also have an important role in helping to accommodate wider forecast growth in demand for aviation in the UK and that the availability of direct air services locally from these airports can reduce the need for air passengers and freight to travel long distances to reach larger UK airports. The APF also states that the "*Government wants to see the best use of existing airport capacity*" and that in the short-term, a key priority for Government is to continue to work with the aviation industry and other stakeholders to make better use of existing runways at all UK airports to improve performance, resilience and the passenger experience.

2.7.4 The Government is currently preparing an Aviation Strategy that will set out the long-term direction for aviation policy to 2050 and beyond. The call for evidence[29] published in July 2017 affirms the Government's support for the growth of airports outside the South East of England and for making the best use of existing infrastructure. In this regard, the Government states that they:

> "*are aware that a number of airports have plans to invest further, allowing them to accommodate passenger growth over the next decade using their existing runways, which may need to be accompanied by applications to increase existing caps. The government agrees with the Airports Commission's recommendation that there is a requirement for more intensive use of existing airport capacity and is minded to be supportive of all airports who wish to make best use of their existing runways"*.

2.7.5 This Government commitment to the growth of regional airports was recently reaffirmed in the Secretary of State for Transport's June 2018 statement concerning the proposed expansion of Heathrow[30]. Recognising that a new operational runway at Heathrow is still a number of years away, and consistent with the Airports Commission's recommendations, he states that *"the government is supportive of airports beyond Heathrow making best use of their existing runways"*.

2.7.6 It is currently anticipated that the Government will publish its Aviation Strategy Green Paper in December 2018. The Green Paper will set out, for public consultation, detailed policy proposals in respect of the Aviation Strategy before publication of the Government's final Aviation Strategy in 2019.

2.7.7 With specific regard to Bristol Airport, the APF recognises the vital role the airport plays in the economic success of the South West region, forecasting that the ongoing development of the airport will contribute between £1.9 and £2 billion to the national economy. In this regard, there is also strong sub-regional and local policy support for expansion including through the emerging West of England Joint Spatial Plan (JSP) and North Somerset Local Plan.

2.7.8 A more detailed overview of national aviation and planning policy is contained in **Section 4.4** of this Planning Statement.

2.8 Bristol Airport Master Plan

2.8.1 The 2013 APF recommends that airport master plans are updated every five years to "*provide a clear statement of intent on the part of an airport operator to enable future development of the airport to be given due consideration in local planning processes*". In this context, and in response to

[29] DfT (2017) *Beyond the Horizon – the Future of UK Aviation: a Call for Evidence on a New Aviation Strategy*. Available from https://www.gov.uk/government/consultations/a-new-aviation-strategy-for-the-uk-call-for-evidence [Accessed March 2018]
[30] Secretary of State for Transport (2018) *Statement by the Secretary of State for Transport about the proposed expansion of Heathrow airport. Oral statement to Parliament*. Available from: https://www.gov.uk/government/speeches/proposed-heathrow-expansion [Accessed June 2018].

forecast passenger growth, BAL is currently preparing a new Master Plan for Bristol Airport, with the early stages having been subject to very extensive public consultation.

2.8.2 The new Master Plan will provide a strategy for the long-term growth of Bristol Airport to meet the forecast level of passenger demand by the mid-2040s, which is expected to be circa 20 mppa. BAL's broad approach to long-term growth was set out in an initial discussion document, Your Airport, Your Views, which was subject to public consultation between November 2017 and January 2018.

2.8.3 The second stage of non-statutory consultation on the emerging Master Plan commenced in May 2018 and closed in July 2018. Following best practice this included, and sought views upon, BAL's proposals for development at Bristol Airport to accommodate 12 mppa, as a first phase of planned growth in passenger capacity.

2.8.4 Reflecting national aviation policy, which seeks to make best use of existing airport capacity, and sub-regional and local policy support for growth, BAL has determined that the optimum capacity for the Proposed Development is 12mppa, for the following reasons:

- **Policy**: BAL has sought to make best use of the existing airport, in line with Government policy and to maximise development within the Green Belt, where possible. This has shaped the overall capacity that is contained within the Proposed Development.
- **On-site capacity**: A number of the on-site facilities will be operating at their optimum capacity at 12 mppa, based on IATA design criteria (e.g. security/departures);
- **Off-site capacity**: The optimum design for the A38/Downside Road improvements, which forms part of the Proposed Development, has a design capacity suitable for 12 mppa;
- **Airspace**: Analysis undertaken on behalf of BAL indicates that airspace capacity is sufficient to support growth to circa 12 mppa – beyond this it is anticipated that an airspace change process would be required;
- **Demand**: Selecting a smaller scale development (e.g. 11 mppa) to meet demand of less than 12 mppa, would see another planning application being brought forward to NSC shortly after this application, based on the demand profile. This is not preferred because of the resource implications, and the potential to create consultation fatigue for local communities and stakeholders.

2.8.5 As part of the phased approach adopted in the emerging Master Plan, the Proposed Development will enable Bristol Airport to grow beyond 10 mppa to 12 mppa, in-line with forecasted passenger demand up to at least the mid-2020s. This will ensure that Bristol Airport continues to support the economic development of the South West region.

2.8.6 The Proposed Development aligns with the five pillars of the emerging Master Plan, as follows:

- **A world leading regional airport**: The proposals for 12 mppa will allow additional destinations, increase regional connectivity and attract more passengers to travel from Bristol. This will be supported by continued investment in a modern, efficient and well-designed airport.
- **Employment and supporting economic growth:** As a key strategic infrastructure employment location, continued investment in the airport will deliver additional jobs, support local businesses, encourage trade and underpin a successful tourism sector.
- **At the heart of an integrated transport network:** Growth to 12 mppa will provide an opportunity to further enhance surface access to the airport as an important step towards BAL's longer term vision of a sustainable transportation hub.

- **A sustainable approach:** By making best use of the existing airport site, embedding effective environmental mitigation and enhancement into the design of the scheme and seeking to enhance surface access including through ambitious and stretching public transport targets, BAL's proposals for a 12 mppa capacity airport will deliver sustainable development.
- **Deliverability:** The Proposed Development has been designed taking into account operational and environmental constraints and policy requirements. It provides the flexibility necessary to enable proposals for the longer-term growth of the airport to be developed and avoid development coming forward prematurely.

2.8.7 Since consultation on the emerging Master Plan took place in summer 2018, BAL has refined its proposals for a 12 mppa capacity airport as part of the ongoing design process, taking into account feedback received. The principal adjustments made to the Proposed Development since consultation took place include:

- Selection of the south terminal extension alongside the proposed west terminal extension (Phase 2) as BAL's preferred solution for enhancing terminal capacity. As a result, the east terminal extension (Phase 2) will no longer be progressed. The rationale for this decision is set out in the Design and Access Statement;
- The design of proposed improvements to the A38 have now been finalised and include an enhanced footway / cycle track to be provided on the western side of the road between the airport and Downside Road;
- A 5 metre high faceted acoustic barrier will be erected to separate the north east of the far eastern apron from the airport entrance road;
- Operational changes to the use of stands 38 and 39 are now proposed.

2.9 Summary

2.9.1 Bristol Airport has experienced significant growth since planning permission was granted for expansion of the airport to 10 mppa in 2011; this has been supported by substantial investment in airport infrastructure, facilities and surface access. Reflecting projected international, national and regional trends for the aviation sector, this growth is forecast to continue up to 20 mppa by the mid-2040s.

2.9.2 As part of the phased approach to the continuing sustainable development of Bristol Airport set out in the emerging Master Plan, the Proposed Development will enable Bristol Airport to grow beyond 10 mppa to 12 mppa by making the best use of the existing airport site. This will accommodate forecasted passenger demand up to around 2026 and will ensure that Bristol Airport continues and enhances its role as the principal international gateway for the South West region and a significant economic driver, in accordance with national aviation policy, the emerging JSP and local policy.

3. Application Site and the Proposed Development

3.1 Introduction

3.1.1 This section of the Planning Statement provides an overview of the application site noting that elements of the extant consent for the expansion of Bristol Airport to 10 mppa, as well as ongoing operational development, are continuing to be implemented. It then describes the Proposed Development and the principal components of the scheme before outlining the anticipated development programme.

3.2 The Application Site

3.2.1 Bristol Airport is located approximately 11km south-west of Bristol city centre (national grid reference 350440, 165195), within the local authority administrative area of NSC. Covering an area of 196 hectares (ha), it is situated on a ridge of high ground called Broadfield Down 183 metres Above Ordnance Datum (AOD), with the A370 Bristol to Weston-super-Mare 4km to the north and the M5 motorway 11km to the west of the site (the total application site area is circa 211 ha). The A38 carriageway is directly adjacent to the airport, on its eastern extent. The site location is shown in **Appendix A**.

3.2.2 Two roundabout junctions provide access to the airport site from the A38. The northern roundabout provides access to the northern parts of the airport including the main terminal building, passenger pick up and drop off areas, current airport administration buildings, hotel and operational facilities, and both short and long-stay parking areas. This is also the main access for public transport links to Bristol Airport. The southern roundabout, meanwhile, provides access to (inter alia) Silver Zone long-stay car parking, staff car parking, aircraft maintenance areas, fire station, Profred hangar, the Bristol and Wessex Aeroplane Club, Bristol Flying Centre and Western Power Distribution Helicopter Unit.

3.2.3 **Appendix A** shows the layout of Bristol Airport's main facilities within the BAL land holding, both landside and airside[31] as of September 2018. The Bristol Airport site is split by the runway and taxiways creating three main areas; the northern, central and southern areas. The following sections outline the components of the three areas.

3.2.4 In addition to its existing site, BAL owns some 16ha of land immediately to the south of the southern area. This land is currently used for agriculture, dominated by improved grassland used for grazing and a small area of woodland. The area surrounding the airport, meanwhile, is predominately open, undulating countryside with extensive woodland areas to the east and open farmland and settlements to the north, east and south. Immediately to the north of the airport are properties along Downside Road with properties along the southern side falling within the parish of Wrington and those along the north within the parish of Backwell. Those properties along the southern side of Downside Road share a boundary with Bristol Airport. To the north-west is the

[31] Airside – areas of the airport, terminal and other buildings where access is restricted to processed passengers and authorised personnel.
Landside – those areas of the airport open to the public. In more general terms, the access roads, car parks and terminal building areas open to both passengers and non-passengers.

village of Felton, which extends northwards along the A38 and east towards Winford. To the south is the small settlement of Redhill and beyond is Wrington.

Northern Area

3.2.5 The northern area is the most heavily developed part of the Bristol Airport site and accommodates the main passenger facilities. The terminal building is circa 13m high and consists of a large modern flat roof and glass structure. Connecting to the central walkway south of the terminal building, the western walkway extends west of the terminal building, on its southern face.

3.2.6 To the west of the terminal are several large buildings that are used for flight catering and motor transport engineering. Also in this location is the air traffic control tower and a security check point (airside access point). A new airline services facility and security check point is being developed to the west of the terminal.

3.2.7 The old terminal building, which now acts as the administrative centre for Bristol Airport (but is to be demolished with the office function relocated to the southern area), is located to the east of the terminal. This includes airline offices as part of its function. Also in this location is Northside House, a building used to accommodate engineering offices and associated functions.

3.2.8 The main approach road to Bristol Airport extends westward from the northern entrance roundabout. A number of internal roundabouts and junctions along the approach road provide access to passenger car parking areas. The majority of car parking areas are surface parking comprising impermeable access roads and predominantly permeable crushed stone parking bays. At the western end of the access road, there is a hotel and chiller compound; immediately north east of the hotel, a three storey (including ground level) multi-storey car park (Phase 1a) provides a total of 1,162 spaces (a second phase, Phase 1b, of development will provide a further 716 spaces). To the north of the hotel are car rental facilities (although these are to be consolidated and relocated to the southern area during 2019).

3.2.9 The Bristol Airport access road extends to the northern boundary of the airport where it forms a junction with Downside Road, adjacent to Cooks Farm.

3.2.10 To accommodate highways improvements associated with the Proposed Development (see **Section 3.4**), the application site includes a section of the A38 extending from the roundabout at the airport's northern entrance northwards for a distance of circa 500m, as well as third party land (including part of the residential curtilages of Highlands and Greenacre, the adjacent disused quarry, the Airport Tavern and land to the north of the Tavern within the curtilage of Oakwood House). The application site also includes a section of Downside Road (extending approximately 160m) and West Lane (for a distance of circa 50m).

Central Area

3.2.11 The central area of the Bristol Airport site is characterised by the runway, apron (east and west), taxiways and hold points, together with a significant expanse of grassland. The 2,011m runway is aligned east/west and located at the eastern and western ends are the instrument landing systems.

3.2.12 Immediately north of the runway and taxiways are apron areas which include aircraft stands, located on concrete hardstanding. The majority of aircraft stands can accommodate aircraft up to a

Code C and there is a single stand that can accommodate aircraft up to Code E[32]. The fuel farm is also located in this area.

Southern Area

3.2.13 To the south of the runway lie ancillary areas including the Bristol Flying Centre, Bristol and Wessex Flying Club, Western Power Distribution Helicopter Unit, Profred hangar and car parking as well as light aircraft and helicopter parking with associated taxiways.

3.2.14 The staff car park and Silver Zone long stay car park, accessed off the western arm of the southern A38 roundabout, occupy a significant proportion of the southern area. Within this area is the two storey Silver Zone car park reception building, Staff Transport Hub and bus transfer facilities.

3.2.15 To the west of the Silver Zone long stay car park is a fire station and training area, which includes a specialist fire simulator in the shape of an aircraft for training, hard standing and drains to collect runoff, and the Snow Base[33]. To the south of the fire training ground is the Silver Zone seasonal car park (Phase 1), consisting of surface parking on Netpave cellular paving.

Bristol Airport Operation

3.2.16 The Bristol Airport site is open 24 hours a day, 365 days a year. Flight operations are split according to day time (06:00 to 23:30) and night time (23:30 to 06:00) operational periods, with the majority of flights occurring in the day time (06:00 to 23:30). BAL operates commercial scheduled passenger flights with a number of general aviation operations.

3.3 The Proposed Development

3.3.1 The Proposed Development seeks to increase the permitted passenger cap from 10 mppa to 12 mppa. To support the proposed increase in passenger numbers and ensure safe and efficient passenger movement to and around the airport site, the Proposed Development includes a number of new infrastructure components, improvements to existing facilities and operational changes; these are shown on the site reference plan contained in **Appendix B**. The components of the Proposed Development are described in the following sections with the site references corresponding to those in **Appendix B**; a comprehensive description of the individual elements of the scheme can be found in the Design and Access Statement that accompanies the planning application.

Northern Area Components

Terminal building

3.3.2 Without increased capacity in the existing terminal, proposals to grow the passenger throughput towards 12 mppa will increasingly result in congestion, most noticeably at peak times of operation. Capacity modelling has been undertaken by BAL and this has been independently verified. From this modelling, it has been demonstrated that the terminal building will have operational processing capacity constraints, specifically with the check in facilities, security search, baggage reclaim, immigration operations and departure lounge sub-systems. These constraints in an

[32] The ICAO Aerodrome Reference Code is a two part categorisation of aircraft types which simplifies the process of establishing whether a particular aircraft is able to use a particular aerodrome. Code E refers to aircraft with a wingspan of 52 m but < 65 m and outer main gear wheel span of 9 m but < 14 m. Code C refers to aircraft with a wingspan 24m < 36 m.
[33] Snow Base is the storage area for snow clearing equipment.

increasingly busy terminal will ultimately have an adverse effect on airline punctuality and could compromise the success of the operation as a whole.

3.3.3 Terminal extensions are therefore proposed to both the west (Site C) and south (Site E) of the existing terminal, alongside the addition of canopies over the forecourt of the main terminal building (Site B).

3.3.4 On the western side of the existing terminal, proposed alterations include a four storey, 13.5m high extension, with a footprint of 0.48ha and a total floorspace of circa 11,000m^2 (individual floor areas are set out in **Table 3.3**). The extension incorporates the following elements:

- Basement level: linking to the existing basement, the area will have a new vertical access core inclusive of service lifts and a stairwell with staff and goods search / storage facilities;
- Ground floor level: comprises of the re-configuration of existing baggage re-claim areas. This will extend the international re-claim area to accommodate additional conveyors alongside re-siting domestic baggage reclaim. There will be the addition of a landside arrivals concourse housing retail and catering units such as food, beverage, confectionary and arrivals gift shops;
- First floor / apron level: the central search area will be extended to include staff accommodation, alongside an expansion of the departure lounge to house additional retail facilities (including duty free, specialist retail, news/gifts and currency exchange). A new immigration complex will be created and be accessible via a vertical circulation core comprising of stairs, lifts and escalators, this directly linked to the arrivals walkways and airside coaching drop-off; and
- Second floor: comprises of a service corridor with both storage and staff accommodation.

3.3.5 On the southern side of the existing terminal building, proposed modifications comprise of a two storey (8.5m high) extension with a footprint of 0.20ha and a total floorspace of circa 3,600m^2. The extension incorporates the following elements:

- First floor / apron level: the extension will replace the existing coach deck to provide space for new toilet and Passengers with Reduced Mobility (PRM) facilities, layout improvements to the departures concourse and retail areas, covered arrival corridors for passengers and a re-located domestic baggage reclaim access from the apron; and
- Second floor: comprises of an extension to the existing food and beverage area that will increase food and beverage capacity, and reduce queues and improve passenger circulation within the current concourses.

3.3.6 The floor areas of the existing terminal and proposed extensions are outlined in **Table 3.1** below.

Table 3.1 Terminal floor areas (m^2)

	Existing terminal (m^2)	West extension (m^2)	South extension (m^2)
Basement level	4,455	995	n/a
Ground floor level	12,160	3,500	n/a
First floor / apron level	12,720	4,475	1,820
Second floor	8,100	2,065	1,710

3.3.7 The terminal extensions will be designed to ensure that both the passenger facilities (such as departure lounges and retail areas) and handling areas (such as check-in, boarding gates and baggage reclaim) are optimised for enhanced passenger experience and operational efficiency.

3.3.8 The extensions to the existing terminal building will be constructed so as to reflect its current aesthetic appearance. The existing building is formed in tabular steel modules with a fully glazed curtain wall system; where function dictates, these glass modules are replaced with metal faced cladding. Architecturally, it is envisaged that the public landside facades of the west terminal extension will be predominantly formed of a two-storey glass structure. The southern extension differs slightly since this is an infill development, consisting of east and west gable walls with a new pitching roof and rooflights. The gable walls will incorporate glazing but will be predominantly formed of metal cladding.

3.3.9 The canopies will improve the appearance of the passenger approach to the front of the main terminal and provide shelter, enhancing passenger experience. The canopies will be supported on structural steel columns and form a 'tree' like framework, similar to that within the existing terminal. The canopies will have a transparent roof to ensure that the maximum amount of light is utilised in this northerly orientated external space.

East pier and walkway

3.3.10 A new walkway to the east pier with circulation cores and one pre-board zone (Site G) is required. This will represent a revised alignment to that approved under the 2011 consent for expansion of the airport to 10 mppa. This walkway will be 275m long and, on average, circa 10m high across two storeys and be fully enclosed. The upper floor will be utilised as a passenger walkway, sub-divided by a partition wall resulting in two corridors to segregate arriving and departing passengers. The north corridor, approximately 4m wide, will accommodate departing passengers while the southern corridor, approximately 3.4m wide, will accommodate arriving passengers. Both corridors will incorporate two travellators (50m and 100m in length) to assist with passenger movement along the walkway. The ground floor will accommodate a 285m^2 PBZ and an open area to allow for apron circulation and operations. It is anticipated that it will be glazed, providing passengers with continuous views towards the apron and runway to the south and open countryside to the north. The walkway will have a total floorspace of circa 3,000m^2.

3.3.11 The east pier (Site H) will connect to the eastern walkway to enable passengers to access the eastern stands and be fully enclosed. It will have a total floor area of 3,815m^2 across two floors, housing six boarding gates (five on the ground floor and one on the first floor) with associated departing and arriving vertical circulations cores. The areas of these PBZs will range from 250m^2 to

280m^2. The pier itself will be approximately 195m long and will vary between 8-16m in width, this increasing to 12-16m at the stair core areas.

3.3.12 The appearance of both these elements is a reserved matter; however, they will be designed to visually integrate with the existing terminal and its extensions with horizonal cladding panels interspersed with glazing.

Service yard

3.3.13 A new and larger service yard (Site D), approximately 0.4ha (including undercroft areas) in area, is proposed directly to the north of the western walkway and east of the current airside access security building. The facility will be largely screened from public view; however, passengers will be able to see down into this area from level 10 of the west terminal extension.

3.3.14 Primarily, the service yard will be used for all terminal retail, catering and operational partner deliveries and to manage waste produced across Bristol Airport. The service yard will also be used as a point of entry for all contractors for bringing tools and materials into the main terminal building, although permanent parking will not be available. Baggage companies will utilise this space to pick up and drop off misdirected baggage.

3.3.15 It is anticipated that the surface material to the yard will be concrete with paint markings to demarcate different zones, including safe staff access ways and waiting areas. At its northside, the service yard will be separated from the passenger plaza by a screen. This will conceal its function from this area.

Multi-storey car park

3.3.16 A MSCP (Phase 3) to provide approximately 2,150 spaces over five levels will be constructed in the northern area of the Bristol Airport site adjacent to the current MSCP (Phase 1) (Site A). The MSCP will occupy a footprint of around 1.12ha and be a maximum of 16m AOD in height.

3.3.17 Vehicular access to the MSCP will be directly from the internal Bristol Airport spine road via a roofed entrance/exit plaza at ground level, with access to the other upper car park decks via separate 'up' and 'down' ramps. The car park will have a simple circulatory layout for vehicles and a protected pedestrian walkway leading to a central vertical circulation core.

3.3.18 The building structure will be based upon a modular steel frame system, with 16.1m spans to match through with MSCP Phase 1. The top deck of the MSCP will align with the top deck of MSCP Phase 1. Wind turbines will be installed on the top deck, the mast height reaching approximately 12m, extending to 15m when accounting for the rotors.

3.3.19 The appearance of the MSCP is a reserved matter; however, it is anticipated that the development will incorporate perforated polyester powder coated (PPC) panels finished with muted and tonal colours. Lapped timber effect planks will encase the stair cores and will also be placed intermittently along the ramps.

Gyratory road with internal surface car parking

3.3.20 To accommodate vehicle movements and improve flows within Bristol Airport and onto the A38, a two lane, one-way system, gyratory (Site N) is proposed. This will provide additional capacity onto Northside Road and a connection between the A38 and the northern components of the airport, including the main terminal building, MSCP and surface car parking areas. To the west, the gyratory road serves the airport servicing area and hotel.

3.3.21 The new road is approximately 700m long, with a 35m inscribed circle diameter at either end. The circulating carriageway is approximately 7.5m wide on straight sections, widening to 8m on the circulating sections. In total, it comprises of six arms on the outer edge, with a separate entrance and exit arm within the gyratory itself to serve the central parking area.

3.3.22 The gyratory includes a pedestrian footway along its southern edge, linking the main terminal building with the A38. A new zebra crossing will be located across the dual carriageway to the east. Within the gyratory, replacement car parking is proposed, with a lay-by for buses to collect users and transport them to the terminal building. This will comprise of impermeable tarmac/asphalt access roads and predominantly permeable crushed stone parking bays, similar to existing. There will additionally be changes to the layout of existing car parking areas to the north of the gyratory. The lighting in this area will be retained.

3.3.23 The new circular route will be constructed in a series of phases to ensure vehicle circulation throughout the works are managed to minimise disturbance. All improvements are in keeping with the current character of the area. The road will be constructed with an asphalt wearing course and antiskid surfacing will be applied on the approaches to the zebra crossing. All traffic signs and markings will be provided in accordance with highway design standards applicable to the location and type of road.

3.3.24 At present, Northside Road has a hedgerow/verge that runs along the majority of northern side of the carriageway and along part of the southern side. The proposed improvement seeks to maintain a verge to the south as much as possible. Due to the nature of the proposed improvement, the northern hedges and trees will need to be removed and replaced within the new gyratory road. Within the design of the new gyratory road, there are areas where it is possible to re-provide tree and hedges to improve the aesthetics of the proposals.

Central Area Components

Eastern taxiway link

3.3.25 A new eastern taxiway link (Site K) at the far eastern end of the runway will be constructed, providing an improved link between the runway from the east apron. This link will be approximately parallel to the existing two taxiways, Taxiway Bravo and Taxiway Alpha and extend for approximately 170m. The width of the taxiway link varies along its length, responding to the swept path (i.e. the envelope swept out by the sides of the aircraft); the minimum width is 23m. New airfield ground lighting (AGL) will be provided in accordance with current regulations.

3.3.26 Operation of this new link will allow for improved and efficient access to the runway for aircraft. The taxiway will enable a more efficient system for sequencing aircraft and will therefore minimise ground delays for aircraft awaiting departure.

3.3.27 It is proposed that the new taxiway will be constructed of either asphalt, concrete or a combination of these materials. This will be a continuation of the current surfacing and will have a footprint of approximately 0.51ha.

Taxiway widening (and fillets)

3.3.28 Taxiway widening (and fillets) to the southern and northern edges of the northern most taxiway (Taxiway GOLF) (Site J) is required to provide a parallel taxiway system for improved access and movement of aircraft. This will largely facilitate aircraft turning to the existing Taxiway Foxtrot.

3.3.29 The taxiway will be widened from 15m to 25m and will be a continuation of the current surfacing, with extensions proposed from its western extent (adjacent to aircraft stands 33-37) along the

entirety of the west and east apron to Taxiway Bravo. Fillets are provided to Taxiways Foxtrot and Delta to an appropriate size of the aircraft making the turn. New AGL lighting will be provided in accordance with current regulations.

3.3.30 It is proposed that the new areas will be constructed of either asphalt, concrete or a composite combination of these materials. The area covered by this improvement is approximately 1.81ha.

Southern Area Components

Extension to the Silver Zone Car Park (Phase 2)

3.3.31 An extension to the Silver Zone car park is proposed on agricultural land to the south of the existing Silver Zone car park extension (Phase 1) (Site M). Occupying a footprint of circa 5.1ha (3.73 ha for car parking), this extension will provide an additional circa 2,700 spaces for year-round use.

3.3.32 The public will not have access to the car park and instead, cars will be valet parked by BAL staff from a central reception facility. This feature fundamentally informs the parking layout, which is anticipated to be block parking only.

3.3.33 The layout of the car park will be similar to that of the existing seasonal Silver Zone car park extension (Phase 1). No additional road structure is required since access will be via the existing Silver Zone car park entrance / exit facility and through Phase 1 of the Silver Zone car park extension.

3.3.34 Surfacing of the car park will comprise of two finishes, an asphalt access road and aisles and grass parking bays forming from a grid paving system infilled with topsoil and grass seed. Lighting (LED) will be designed to minimise light spill, glare and sky glow.

Highway Improvements

3.3.35 BAL is proposing to undertake a significant improvement of the A38 between the main airport access roundabout and West Lane (Site O) to accommodate any additional traffic generated by an extra 2 mppa and support better performance of the junction. The main carriageway over this length will be increased in width to allow two through lanes to be provided on each carriageway. The widening will be mainly undertaken on the western side of the road providing an overall width of 16m. The improvements taper back to join the existing carriageway width some 130m beyond West Lane. A further dedicated lane will be provided for northbound traffic turning left into Downside Road, along with a right turn lane into West Lane. The centre of the carriageway will be hatched or have traffic islands in order to separate traffic flows. Downside Road will be widened to two lanes for 80m prior to the junction with the A38 and new access provided into the Airport Tavern car park.

3.3.36 The junction with Downside Road will remain controlled by traffic signals but will be linked to new signals controlling the West Lane junction. The junctions will monitor traffic approaching the junctions and using MOVA will adjust the timings to enhance traffic flow and reduce queuing. Traffic will only be able to turn left out of West Lane, while traffic travelling southbound will remain unable to turn right into Downside Road and will continue to double back at the main airport junction with the A38.

3.3.37 The existing footway / cycle track will remain on the eastern side of the A38, with a new footway provided north of the West Lane junction. An enhanced footway / cycle track will be provided on the western side of the road between the airport and Downside Road, with a footway provided for the section north of the Downside Road tying in with the existing facility north of West Lane. Pedestrian and cycle facilities will be provided within the Downside Road junction. A pedestrian

crossing is included within the West Lane signals and both junction designs will incorporate drop kerbs. Bus stops will be maintained albeit adjusted for the new carriageway alignment. Access will also be maintained to the footpath which runs along the western boundary of the Airport Tavern land towards Lulsgate Bottom.

3.3.38 The proposed improvements are in-keeping with the current character of the area. The road will be constructed with an asphalt wearing course and antiskid surfacing will be applied on the approaches to the signal stop lines. All traffic signs, signals and markings will be provided in accordance with highway design standards applicable to the location and type of road. The area will continue to have street lighting in line with NSC standards and local operations including diming at night. Surface water drainage will be enhanced to accommodate the effects of the widened carriageway.

Operational Changes

Night flights

3.3.39 As noted above, night flights are currently restricted to a maximum of 3,000 flights in the summer period and 1,000 flights in winter by condition. Through the planning application for the Proposed Development, and as explained above, BAL wish to operate without any the seasonal constraint on night flights or movements without increasing the maximum number of flights. As part of this application, permission is therefore sought for a rolling annual cap of 4,000-night flights (i.e. measured across two consecutive seasons rather than over a calendar year and between the hours of 23:30 to 06.00) to commence from grant of permission. BAL does not seek any alteration to the existing shoulder period limits.

Aircraft stands 38 and 39

3.3.40 BAL is seeking to align the operational restrictions on stands 38 and 39 (Site I), which currently prevent the use of APUs and allow for only tow on and push back, with those on stands 33-37. This will enable the use of APUs and allow for the use of aircraft engines for taxiing (as opposed to towing) between the hours of 06:00 and 23:00, enabling the full and efficient use of these stands and supporting a passenger throughput of 12 mppa.

Operational extension to the Silver Zone car park (Phase 1)

3.3.41 The Silver Zone car park extension (Phase 1) (Site L), located to the south of the fire training ground, is an area of approximately 7.8ha and comprises of 3,650 long-stay car parking spaces surfaced by a grid structure with grassed parking bays divided by asphalt isles and access roads. The site includes associated features such as temporary (seasonal) lighting, CCTV and services. Vehicles access the site via the A38 roundabout and report to the Silver Zone reception where cars are then valet parked.

3.3.42 Currently, use of the Silver Zone car park extension (Phase 1) is prohibited outside of the period 1 May to 31 October (although temporary planning permission has been granted for the use of the car park outside of this period in winter 2018/19). To ensure that there is sufficient provision in meeting increased demand for long term on-site car parking, BAL is seeking to remove this restriction. This would allow for year-round use of the car park and provide additional car parking capacity.

3.3.43 It should be noted that, with the exception of the provision of permanent (fixed) lighting and CCTV, no additional or new development is required to facilitate the year-round use of the car park.

Airport Operational Boundary

3.3.44 In order to accurately reflect the operation of Bristol Airport at a passenger throughput of 12 mppa, it is proposed that the existing operational boundary of the airport is revised. This will allow BAL permitted development rights within the operational airport boundary thereby ensuring that it is able to fully and effectively respond to the future operational needs of the airport in a timely manner, facilitating the continued, efficient operation of the airport.

3.4 Development Timescales and Programme

Phase 1: Construction Period

3.4.1 The construction phase of the Proposed Development comprises a series of phased, but inter-related, activities over a period of eight years (anticipated to be between 2019 and 2026 inclusive). Development will be phased in line with demand and operational requirements and to ensure minimal disruption to the safe operation of Bristol Airport. An indicative phasing programme is set out in **Table 3.2**.

Table 3.2 Indicative construction programme

Component	Construction Start (month/year)	Completion (month/year)
Extension to the Silver Zone Car Park (Phase 2)	Dec-19	Mar-20
Operational Extension to the Silver Zone Car Park (Phase 1)	Apr-19	Jun-19
Highway Improvements (A38)	Oct-19	Apr-20
South Terminal Extension	Nov-19	Apr-21
New Arrivals Area with Vertical Circulation Cores	Nov-19	Apr-20
West Terminal Extension Phase 2a	Sep-20	Jun-21
Gyratory with Internal Surface Car Parking	Oct-20	May-21
Canopies	Sep-22	May-23
Eastern Taxiway Link	Jan-24	Jun-24
Taxiway Widening (and Fillets)	Jan-24	Jun-24
MSCP (Phase 3)	Sep-24	Jul-25
West Terminal Extension Phase 2b	Nov-24	Mar-26
Walkway to East Pier with Circulation Cores and One Pre-Board Zone	Sep-25	Jun-26

Component	Construction Start (month/year)	Completion (month/year)
East Pier with Vertical Circulation Cores and Five Pre-Board Zones	Sep-25	Jun-26
New Service Yard	Nov-25	Mar-26
Operational change to Stands to reflect 38-39	N/A	Apr-19

3.4.2 Work to deliver the Proposed Development will commence in 2019, with changes to operational restrictions (stands/parking) expected to be in place with immediate effect once consent is granted (anticipated to be April 2019).

Construction compounds

3.4.3 Separate construction compounds for each element and phase of development will be established within the airport boundary. These will be located adjacent to and/or within the construction site as appropriate.

Working hours

3.4.4 The construction programme for the Proposed Development assumes a six-day working week, with construction confined to the hours of 07:30 to 18:00 Monday to Friday and Saturday 08:00 to 13.00. There is no planned working on Sundays or Bank Holidays. Airside works will be carried out wherever possible during normal site hours; however, safety critical works will be necessary overnight when the airfield can be closed. The hours of such works will be 23:30 – 06:00.

Construction traffic

3.4.5 The majority of material and equipment necessary for the construction works will be delivered to Bristol Airport by road (via the A38). An Outline Construction Environmental Management Plan (CEMP) has been submitted with the application (as an appendix to the ES) and this outlines mitigation measures to be implemented during the construction phase to reduce potential impacts on the local road network. The final CEMP for each phase of construction will include a Construction Traffic Management Plan that will outline site access routes and proposed routing of vehicles. Construction vehicles, particularly HGVs, will avoid the use of minor roads where possible.

3.4.6 Further information relating to construction traffic associated with the Proposed Development is contained in **Section 5.6** of this Planning Statement.

Waste management

3.4.7 Waste material will be generated at all stages of the construction process. Construction waste will arise from the following key aspects of the Proposed Development:

- Demolition of existing infrastructure;
- Excavation and earthworks for preparation of foundations; and
- Construction of new buildings (terminal extension, MSCP, walkways and piers); asphalt pavement (access, storage and parking); and concrete pavement (taxiways).

3.4.8 A Site Waste Management Plan (SWMP) will be prepared as part of the final CEMP that will set out how waste arising from the construction of the Proposed Development will be managed. Aligned with current performance, circa 90% of demolition waste and 80% of non-demolition waste will be diverted from landfill.

Phase 2: Operational Phase

3.4.9 The operation of the airport will be continuous throughout the expansion programme, with passenger, staff and contractor movements increasing in proportion to passenger demand, creation of new jobs, and the availability of new services and infrastructure.

3.4.10 At 12 mppa (2026) there will be a total of 97,373 annual aircraft movements, an increase of 10,420 movements compared to forecast movements at 10 mppa (in both 2021 and 2026). The majority of flights will continue to occur in the day time (06:00 to 23:30).

3.4.11 The number of summer aircraft movements between the hours of 23:00 and 07:00 at 12 mppa (2026) will be 4,639, an increase of 1,904 movements compared to forecasts at 10 mppa (in both 2021 and 2026). It should be noted that these movements include both night time movements and shoulder periods, as defined under the extant 10 mppa consent.

3.5 Proposed Planning Conditions and Section 106 Heads of Terms

3.5.1 The application is supported by proposed Section 106 Agreement Heads of Terms that have been prepared taking into account pre-application consultation and the documentation prepared in support of the application, including the ES. The proposed Heads of Terms provides for:

- **Highways improvements** - comprising the implementation of the junction improvement scheme at A38/Downside Road/West Lane and funding towards local highway improvements;
- **Sustainable surface access** - including parking controls, funding towards future major transport schemes and sustainable travel including public transport improvements linked to an ASAS to be delivered with the Master Plan and Workplace Travel Plan (a draft is submitted with this planning application);
- **Air quality** - including commitments to develop proposals for electric vehicle (EV) charging, establish a pool car operation as part of the Workplace Travel Plan, produce an Air Quality and Emissions Action Plan and to undertake monitoring;
- **Noise (including air and ground noise)** – including (inter alia) the implementation of an enhanced noise insulation scheme, Ground Noise Management Strategy and ongoing monitoring;
- **Environment and biodiversity** - commitments to mitigate impacts on bats and other species, enhance habitats, and deliver a Landscape, Biodiversity and Habitat Action Plan; an Off-Site Habitat Management Plan will also be delivered through proposed planning conditions. It is proposed that an Environmental Steering Group is formed with terms of reference and objectives agree with NSC.
- **Community/ environmental improvement** - comprising of the continuation of an Airport Environmental Improvement Fund to support projects in the local area to mitigate impacts and reduce any harm of airport growth; and
- **Employment and skills** - including a commitment to prepare a Skills and Employment Plan working with appropriate agencies to deliver employment opportunities at the airport for local

communities linked to any local or neighbourhood policy or to offset any adverse impact of airport growth.

3.5.2 A series of suggested draft planning conditions are also submitted with the application. These conditions have been carefully worded so as not to overlap, or create any inconsistency with, the elements of the extant 10 mppa permission still to be implemented alongside the Proposed Development. Together, the proposed Section 106 Agreement Heads of Terms and planning conditions demonstrate BAL's ongoing commitment to managing effectively the impacts of the airport's operations and, where appropriate, delivering benefits to local communities, the economy and the environment as part of an approach that seeks to achieve the sustainable growth of Bristol Airport. The proposed Section 106 Heads of Terms also contain provisions to regulate the ongoing implementation of the 10 mppa planning permission alongside the Proposed Development.

3.5.3 Details of the proposed conditions and Section 106 Agreement Heads of Terms are included in **Appendix D**.

4. Planning Policies and Other Material Considerations

4.1 Introduction

4.1.1 This section of the Planning Statement sets out the main Development Plan and national planning policies against which the proposed development of Bristol Airport to accommodate 12 mppa has been assessed (in **Section 5**). Other material considerations that are also of relevance to the Proposed Development, including national aviation policy, are identified.

4.2 The Development Plan

4.2.1 Section 70(2) of the Town and Country Planning Act 1990 requires local planning authorities in determining planning applications to have regard to the development plan, so far as is material to the applications, and to any other material considerations. Section 38(6) of the Planning and Compulsory Purchase Act 2004 (as amended) requires planning decisions to be made in accordance with the development plan, unless material considerations indicate otherwise.

4.2.2 The adopted Development Plan for the Proposed Development comprises:

- North Somerset Core Strategy (adopted 2017);
- Sites and Policies Plan Part 1: Development Management Policies (adopted July 2016); and
- Sites and Policies Development Plan Part 2: Site Allocations Plan (adopted April 2018).

4.2.3 Paragraph 48 of the National Planning Policy Framework (NPPF) establishes that local planning authorities may give weight to relevant policies in emerging plans. In this regard, the unitary authorities of Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire are currently preparing the West of England JSP. The JSP will, once adopted, form part of the Development Plan, providing the strategic overarching development framework for the West of England to 2036 and guiding the review and future preparation of local plans in the sub-region. NSC has also commenced work on a new Local Plan. The new Local Plan will review and roll-forward policies and allocations in existing development plan documents and plan for the housing, jobs and infrastructure set out in the JSP to 2036.

4.2.4 For the purposes of this application, the key current and emerging Development Plan policies relating to the Proposed Development are considered below.

North Somerset Core Strategy

4.2.5 The North Somerset Core Strategy was adopted in January 2017 and sets out the long-term vision, objectives and strategic planning policies for North Somerset up to 2026. The Core Strategy contains a suite of spatial visions that are intended to provide a clear, strategic planning context underpinned by a set of priority objectives. With specific regard to Bristol Airport, the overarching vision for North Somerset (Vision 1) sets out that: "*The future planning of…Bristol Airport will be guided by the need to balance the advantages of economic growth with the need to control the impacts on those who live nearby and on the natural environment.*" Priority Objective 3, meanwhile, supports and promotes major employers in North Somerset including Bristol Airport to ensure continued employment security and economic prosperity.

4.2.6 Policy CS23 is the principal Core Strategy policy relating to development proposals at Bristol Airport and aims to support the delivery of Priority Objective 3. It states:

> "*Proposals for the development of Bristol Airport will be required to demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure.*"

4.2.7 The Development Plan proposals map defines an inset that excludes the northern side of Bristol Airport's operational area from the Green Belt. Core Strategy Policy CS6 sets out that amendments to the Green Belt boundary at Bristol Airport will only be considered once long-term development needs have been identified and exceptional circumstances demonstrated (further detail on Green Belt policy is contained in **Section 5.3** of this Planning Statement and is therefore not repeated here).

4.2.8 The Core Strategy contains a number of other policies of relevance to the Proposed Development and these are set out in **Table 4.1**.

Table 4.1 Other Core Strategy policies relevant to the Proposed Development

Core Strategy Policy	Summary
CS1: Addressing climate change and carbon reduction	The policy states that NSC is committed to reducing carbon emissions and tackling climate change, mitigating further impacts and supporting adaptation to its effects.
CS2: Delivering sustainable design and construction	The policy states that new development should demonstrate a commitment to sustainable design and construction, increasing energy efficiency through design, and prioritising the use of sustainable low or zero carbon forms of renewable energy generation. The policy sets out that, when considering proposals for development, the NSC will: • require designs that are energy efficient and designed to reduce their energy demands; • require the use of on-site renewable energy sources or by linking with/contributing • to available local off-site renewable energy sources to meet a minimum of 15% for non-residential development 1,000m^2 and above; • require Building Research Establishment Environmental Assessment Method (BREEAM) 'Very Good' on all non-residential developments over 500m^2 and 'Excellent' over 1000m^2; • require the application of best practice in Sustainable Drainage Systems (SuDS) to reduce the impact of additional surface water run-off from new development. **Design matters are considered further in the Design and Access Statement that accompanies the planning application.**
CS3: Environmental impacts and flood risk management	The policy states that development that, 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.
CS4: Nature conservation	The policy states that the biodiversity of North Somerset will be maintained and enhanced by, inter alia: • seeking to ensure that new development is designed to maximise benefits to biodiversity, incorporating, safeguarding and enhancing natural habitats and features and adding to them where possible; • seeking to protect, connect and enhance important habitats, particularly designated sites, ancient woodlands and veteran trees; • promoting the enhancement of existing, and provision of new, green infrastructure of value to wildlife; and • promoting native tree planting and well targeted woodland creation, and encouraging retention of trees, with a view to enhancing biodiversity. The policy sets out that a net loss of biodiversity interest should be avoided, and a net gain achieved where possible.

Core Strategy Policy	Summary
CS5: Landscape and the historic environment	The policy states that the character, distinctiveness, diversity and quality of North Somerset's landscape and townscape will be protected and enhanced by the careful, sensitive management and design of development. Close regard will be paid to the character of National Character Areas in North Somerset and particularly that of landscape types and landscape character areas identified in the North Somerset Landscape Character Assessment. The Mendip Hills Area of Outstanding Natural Beauty (AONB) will be protected by ensuring that development proposals conserve and enhance its natural beauty and respect its character, taking into account the economic and social well-being of the area. The policy sets out that NSC will conserve the historic environment having regard to the significance of heritage assets.
CS10: Transportation and movement	The policy states that development proposals that encourage an improved and integrated transport network and allow for a wide choice of modes of transport as a means of access to jobs, homes, services and facilities will be encouraged and supported. It sets out that transport schemes should: • enhance the facilities for pedestrians, including those with reduced mobility, and other users such as cyclists; • deliver better local bus, rail and rapid transit services in partnership with operators; • develop innovative and adaptable approaches to public transport in the rural areas of the district; • improve road and personal safety and environmental conditions; • reduce the adverse environmental impacts of transport and contribute towards carbon reduction; • mitigate against increased traffic congestion; • improve connectivity within and between major towns both within and beyond North Somerset; and • support the movement of freight by rail.
CS11: Parking	The policy states that adequate parking must be provided and managed to meet the needs of anticipated users in usable spaces.
CS12: Achieving high quality design and place-making	The policy states that NSC is committed to achieving high quality buildings and places across all of North Somerset. It sets out that high quality architecture and urban design will be sought from development demonstrating a robust design process to generate solutions that have clearly considered the existing context, and contribute to social, economic and environmental sustainability. **Design matters are considered further in the Design and Access Statement that accompanies the planning application.**
CS34: Infrastructure delivery and development contributions	The policy states that development proposals will be expected to provide a contribution towards the cost of infrastructure.

Sites and Policies Plan Part 1: Development Management Policies

4.2.9 The Sites and Policies Plan Part 1 brings forward the detailed development management policies which complement the strategic context set out in the Core Strategy.

4.2.10 Policy DM50 relates specifically to Bristol Airport. Focusing on development within the Green Belt inset, it aims to ensure that, if further development of the airport is required, proposals demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure. It states:

> *"Development within the Green Belt inset at Lulsgate as shown on the Proposals Map will be permitted provided that:*

- *it is required in connection with the movement or maintenance of aircraft, or with the embarking, disembarking, loading, discharge or transport of passengers, livestock or goods;*
- *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."

4.2.11 The supporting text to Policy DM50 states that outside the inset, Green Belt policy applies and that it is for the developer to demonstrate 'very special circumstances' that outweigh the harm to the Green Belt and any other harm. Policy DM12 concerns development within the Green Belt and sets out that inappropriate development is, by definition, harmful to the Green Belt and will not be approved except in 'very special circumstances'. Further detail on Green Belt policy is contained in **Section 5.3** of this Planning Statement and is therefore not repeated here.

4.2.12 The Sites and Policies Plan Part 1 contains a number of other policies of relevance to the proposal. These policies are listed in **Table 4.2**.

Table 4.2 Other Sites and Policies Plan Part 1 policies relevant to the Proposed Development

Development Management Policy	Summary
DM1: Flooding and drainage	The policy states that all development must consider its vulnerability to flooding, taking account of all sources of flood risk and the impacts of climate change, up to 60 years ahead on non-residential sites. All development that would increase the rate of discharge of surface water from a site must consider its implications for the wider area, including revised or amended proposals. Open areas within developments must be designed to optimise drainage and reduce run-off, while protecting groundwater and surface water resources and quality.
DM4: Listed buildings	The policy states that development will be expected to preserve, and where appropriate enhance, the character, appearance and special interest of listed buildings and their setting.
DM5: Historic parks and gardens	The policy states that registered and unregistered historic parks and gardens are expected to be conserved by development proposals. Where significant development will have an impact upon the fabric or setting, applicants will have to assess the historic landscape.
DM6: Archaeology	The policy states that archaeological heritage assets should be fully taken into account. Archaeological remains should be preserved in situ where possible. Where it is not necessary to preserve remains in situ, provision should be made for the excavation and recording of assets and NSC will condition development proposals appropriately to achieve this.
DM7: Non-designated heritage assets	The policy states that, when considering proposals involving non-designated heritage assets, NSC will take into account their local significance and whether they warrant protection.
DM8: Nature conservation	The policy states that development proposals must take account of their impact on local biodiversity and identify appropriate mitigation measures to safeguard or enhance attributes of ecological importance. Where appropriate, proposals should seek to conserve the local natural environment by: • retaining, protecting, enhancing and linking existing wildlife habitats; • incorporating retained habitats sensitively into the development through appropriate design; and

Development Management Policy	Summary
	• ensuring that such retained and enhanced habitats are managed appropriately. The policy stipulates that development which would have an adverse impact on identified sites of international importance will not be permitted whilst planning permission will not normally be granted for development that would result in loss in extent or otherwise have a significant adverse effect on local nature reserves or local sites. Development which could harm, directly or indirectly, species that are legally protected, or priority species and habitats, will not be permitted unless the harm can be avoided or mitigated by appropriate measures. The policy requires that development proposals should ensure that, where appropriate, provision is made for (inter alia): any lighting scheme to avoid adverse impacts on light averse wildlife; retention of native trees; compensatory provision, within the site itself, or immediate vicinity if practicable, of at least equivalent biodiversity value, where the loss of habitats or features of importance to wild flora and fauna is unavoidable; and incorporation of habitat features of value to wildlife within the development.
DM9: Trees and woodlands	The policy states that development proposals affecting trees should (inter-alia): • demonstrate that the retention, protection and enhancement of tree canopy cover has been considered throughout the design and development process; • evaluate, at a level of detail appropriate to the proposal, the short and longer-term impacts that the development may have on existing trees; • achieve high quality design by demonstrating that the long term retention of appropriate trees is realistic, and that the trees are viewed as an asset by new occupants rather than as an issue of conflict; • provide high quality physical protection of retained trees, which includes working methods that will be clearly communicated and understood by all site staff; and • include, where practical, the introduction of appropriate new tree planting and woodland creation as an integral part of the design and landscaping of new developments, using native species of local origin wherever possible.
DM10: Landscape	The policy states that all development proposals should: • not have an unacceptable adverse impact on the designated landscape character of the district and respond to the distinctive qualities of the landscape including both nationally registered and unregistered historic parks and gardens;. • be carefully integrated into the natural, built and historic environment, aiming to establish a strong sense of place, respond to local character, and reflect the identity of local surroundings, whilst minimising landscape impact; • respect the tranquillity of an area; • include appropriate landscaping and boundary treatments in the scheme; • conserve and enhance natural or semi-natural vegetation characteristic of the area; • respect the character of the historic landscape including features such as field patterns, watercourses, drainage ditches, stone walls and hedgerows; and • where outdoor lighting is proposed, adopt a lighting scheme which minimises obtrusive light. Where some harm to the local landscape character is unavoidable, but a development is otherwise deemed beneficial, the policy states that positive mitigation measures should be secured by a landscape condition or planning agreement (Section 106), involving works on or off-site as necessary.
DM11: Mendip Hills Area of Outstanding Natural Beauty (AONB)	The policy states that any development will need to conserve and, where possible, enhance the landscape and scenic natural beauty of the AONB. Development which would have an adverse impact on the landscape, setting and scenic beauty of the Mendip Hills AONB, including views into and out of the AONB, will not be permitted unless in exceptional circumstances and where it can be demonstrated that it is in the public interest.
DM24: Safety, traffic and provision of infrastructure, etc. associated with development	The policy states that development will be permitted provided it would not prejudice highway safety or inhibit necessary access for emergency, public transport, service or waste collection vehicles. Development giving rise to a significant number of travel movements will only be refused on transport grounds if it:

Development Management Policy	Summary
	• is likely to have a severe residual cumulative impact on traffic congestion or on the character and function of the surrounding area; or • is not accessible by non-car modes or cannot readily be integrated with public transport, cycleway and footpath links, and bridleways where appropriate. Development which gives rise to a significant detrimental impact on travel patterns, or exacerbates existing transport problems, will only be permitted where acceptable counter measures or mitigation is possible.
DM26: Travel plans	The policy states that travel plans will be required for all developments which generate significant amounts of movement including development comprising or involving a significant increase in existing car parking provision. The policy sets out that travel plans should aim to reduce car use generated by the development and to deliver other sustainable transport objectives, related in scale and kind to the development. Planning conditions will be attached, or a planning obligation sought, to require adoption of the travel plan prior to occupation and its successful implementation post occupation.
DM28: Parking standards	The policy states that development will not be permitted if the car parking arrangements would unacceptably harm the character of the area or the safe and effective operation of the local transport network. It stipulates that planning applications must demonstrate to the satisfaction of NSC that the functional parking needs of the development can be accommodated on or close to the site without prejudicing highway safety or resulting in an unacceptable impact on on-street parking in the surrounding area.
DM30: Off-airport car parking	The policy states that, outside of the Green Belt, airport-related car parking additional to that approved at Bristol Airport or acceptable under Policy DM50: Bristol Airport will only be permitted in association with existing overnight accommodation located on the same site, provided that the number of car parking spaces does not exceed three times the number of bedrooms.
DM31: Air safety	The policy states that planning permission will not be granted for development that would prejudice the safe operation of Bristol Airport or other safeguarded aerodromes. Within the Public Safety Zones, long-stay and employee car parking will be permitted.
DM32: High quality design and place-making	The policy states that the design of new development should contribute to the creation of high quality, distinctive, functional and sustainable places where opportunities for physical activity and recreation are maximised. The design and planning of development proposals should demonstrate sensitivity to the local character, and the setting, and enhance the area taking into consideration the existing context. Design solutions should seek to enhance local distinctiveness and contribute to the creation of a sense of place and identity. In determining whether the design is acceptable, the policy sets out that account will be taken of whether (inter alia): • the siting, soft and hard landscaping, levels, density, form, scale, height, massing, detailing, colour and materials are appropriate and respect the characteristics of the site and surroundings and are appropriate to its use and position within the landscape and/or townscape; and • the design and layout should not prejudice the living conditions for the occupiers of the proposal or that of adjoining occupiers through loss of privacy, overlooking, overshadowing or overbearing impact; and • the design helps to reduce water and energy consumption; and • the design reflects the need to deter crime and enhance security. **Design matters are considered further in the Design and Access Statement that accompanies the planning application.**
Policy DM33: Inclusive access into non-residential buildings and spaces	The policy states that the design of the public realm, shared amenity spaces and entrances into public buildings must be accessible for everyone who may wish to use a building, facility or area of open space on an inclusive basis.

Development Management Policy	Summary
	Design matters are considered further in the Design and Access Statement that accompanies the planning application.
Policy DM70: Development infrastructure	The policy states that design and implementation of development infrastructure including highways, street lighting, flood management and green infrastructure will take into account its long-term maintenance and associated costs.
Policy DM71: Development contributions, Community Infrastructure Levy and viability	The policy states that planning obligations will be entered into in order to mitigate the impacts of a development proposal. These obligations will be formalised through a Section 106 Agreement forming part of a planning approval, are legally binding and may include financial and/or non-financial obligations that bind on a specific parcel of land. The policy sets out that Section 106 Agreements will be sought in line with the appropriate regulations and will seek to deliver or address matters that are necessary to make the development proposal acceptable in planning terms and to ensure that new development is supported by the necessary investment in and/or provision of infrastructure and services to meet any additional demand.

Sites and Policies Plan Part 2: Site Allocations Plan

4.2.13 The Sites and Policies Plan Part 2 identifies the detailed allocations required to deliver the North Somerset Core Strategy covering, for example, residential and employment uses, as well as designations to safeguard or protect particular areas such as Local Green Space and Strategic Gaps. It should be noted that the Sites and Policies Plan Part 2 does not include a specific allocation in respect of Bristol Airport or in relation to the application site.

Emerging West of England Joint Spatial Plan

4.2.14 The November 2017 JSP Publication Document identifies Bristol Airport as a key strategic infrastructure employment location (Policy 4). It recognises the employment growth potential of the airport and in this regard, the supporting text to Policy 4 states: "*Growth at Bristol Airport has the potential to create a range of new employment opportunities*".

4.2.15 Consultation on the Publication Document closed in January 2018 and responses will be considered by the appointed inspector as part of the Examination in Public and prior to adoption of the JSP[34].

Emerging North Somerset Local Plan 2036

4.2.16 On 3 September 2018, NSC published for consultation the Local Plan 2036 Issues and Options Document. The purpose of the Issues and Options document is to identify the issues which need to be addressed and to receive initial feedback on a range of proposed alternatives. It highlights the importance of Bristol Airport as a major employment location and for national and international connectivity and sets out that Development Plan policy relating to the airport needs to be reviewed in light of BAL's growth ambitions.

4.2.17 The document identifies that an improved transport system will be key to unlocking the growth of Bristol Airport as an international and regional gateway which is closely linked with the economic growth of the region. Four potential options are put forward for a new policy for Bristol Airport and include retaining the existing policy and Green Belt inset or removing the airport area (2011

[34] The JSP was submitted to the Secretary of State on the 13 April 2018. On this date the JSP entered the 'examination stage'. As part of the inspectors' initial review of the JSP, additional work has been requested to be made public. The councils are currently preparing this additional evidence base work on which they envisage consultation taking place in November 2018.

permission plus additional land sought for expansion to 12 mppa) from the Green Belt with two options to either allocate or safeguard additional Green Belt land for future expansion (the policy options are reproduced in **Appendix E** to this Planning Statement). The document sets out the advantages and disadvantages of each option and requests feedback on the proposed alternatives.

4.3 National Planning Policy

National Planning Policy Framework

4.3.1 On 24 July 2018, the Ministry of Housing, Communities and Local Government (MHCLG) published the revised NPPF. This document sets out the Government's planning policies for England and is a material consideration in determining planning applications.

4.3.2 At the heart of the NPPF is a presumption in favour of sustainable development through plan-making and decision-taking. Paragraph 11 sets out that this is taken to mean:

- *"approving development proposals that accord with an up-to-date development plan without delay; or*
- *where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
  - *the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
  - *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

4.3.3 **Section 6: Building a strong, competitive economy** of the NPPF establishes the Government's commitment to securing economic growth stating at paragraph 80 that "*Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. 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. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential*".

4.3.4 **Section 9: Promoting sustainable transport** (paragraph 104) of 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. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements*".

4.3.5 Paragraph 104 presents a strengthened policy position in respect of aviation and states 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, training and emergency service needs, and the Government's General Aviation Strategy*".

4.3.6 At **Section 13: Protecting Green Belt Land**, the NPPF sets out that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and permanence. The NPPF identifies five purposes of including land in Green Belts:

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

4.3.7 The NPPF stipulates that substantial weight should be given to any harm to the Green Belt and that inappropriate development should not be approved except in 'very special circumstances'. Paragraph 144 states that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. Further detail on national Green Belt policy is contained in **Section 5.3** of this Planning Statement and is therefore not repeated here.

4.3.8 The NPPF includes a range of other policies that are potentially relevant to the Proposed Development and where appropriate, these policies are referred to **Section 5** of this Planning Statement. The following specific policy topics and paragraphs of the NPPF are considered particularly relevant to this application:

- **Health and well-being**: paragraph 91 of the NPPF recognises that the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities.
- **Transport**: paragraph 108 stipulates that proposals should ensure that sustainable transport modes are promoted, that safe and suitable access can be achieved for all users and that significant impacts on the transport network, or on highway safety, can be cost effectively mitigated to an acceptable degree. Paragraph 111 states that developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.
- **Land use**: paragraph 117 states that planning policies and decisions should promote an effective use of land.
- **Climate Change**: paragraph 148 states that planning should support the transition towards a low carbon future and take into account a changing climate.
- **Flood risk and drainage**: the NPPF requires that inappropriate development is directed away from areas at highest risk of flooding (paragraph 155) and that flood risk is not increased elsewhere as a result of development (paragraph 163). Paragraph 165 requires that major developments incorporate sustainable drainage systems, unless there is clear evidence that this would be inappropriate.
- **Natural environment**: paragraph 170 states that the planning system should contribute to, and enhance, the natural and local environment including by: protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils; recognising the intrinsic character and beauty of the countryside; minimising impacts on biodiversity and providing net gains to biodiversity where possible; preventing new and existing development from contributing to, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land

instability; and remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

- **Noise**: paragraph 180 states that planning decisions should, inter alia, mitigate and reduce to a minimum potential adverse impacts resulting from noise and avoid noise giving rise to significant adverse impacts on health and quality of life.
- **Air quality**: paragraph 181 states that planning decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants and that opportunities to improve air quality or mitigate impacts should be identified.
- **Historic environment**: paragraphs 189-190 set out that local planning authorities should require applicants to describe the significance of any heritage assets affected, including any contribution made by their setting, and that they should identify and assess the particular significance of any heritage asset that may be affected by a proposal. Paragraph 193 stipulates that, when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation, irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

National Planning Practice Guidance

4.3.9 On 6 March 2014, the Department for Communities and Local Government (DCGL, now MHCLG) launched the National Planning Practice Guidance (PPG), a web-based resource. Together with the NPPF, this sets out the Government's overall planning policy framework. With specific regard to aviation and airport planning, the PPG does not introduce any additional guidance beyond that which is already captured by the NPPF.

4.4 Aviation Policy

Aviation Policy Framework

4.4.1 The APF was published in March 2013 and fully replaces the 2003 Air Transport White Paper as Government policy on aviation. The framework outlines objectives and principles to guide plans and decisions on airport developments, bringing together many related and discreet policies. By defining the Government's objectives and policies on the impacts of aviation, the APF sets out the framework within which decisions on aviation ought to be made to deliver a balanced approach to securing the benefits of aviation and to support economic growth.

4.4.2 For many years, the Government has sought to open up access to the airports outside the South East to improve opportunities for connectivity and to help reduce demand on South East airports. It recognises that "*airports in Northern Ireland, Scotland, Wales and English airports outside of London play an important role in UK connectivity*". There is general support for the growth of regional airports, with the APF highlighting that "*new or more frequent international connections attract business activity, boosting the economy of the region and providing new opportunities and better access to new markets for existing businesses*".

4.4.3 It is identified that, beyond their regional importance, airports outside of the South East of England also have an important role in helping to accommodate wider forecast growth in demand for aviation in the UK and that the availability of direct air services locally from these airports can reduce the need for air passengers and freight to travel long distances to reach larger UK airports. In this context, the APF recognises the vital role Bristol Airport plays in the economic success of the South West region.

4.4.4 The APF states that the "*Government wants to see the best use of existing airport capacity*" and that in the short-term, a key priority for Government is to continue to work with the aviation industry and other stakeholders to make better use of existing runways at all UK airports to improve performance, resilience and the passenger experience.

4.4.5 Section 5 (planning) sets out that all proposals for airport development 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 to access the airport, and minimise congestion and other local impacts.

4.4.6 The Government is in the process of replacing the APF with a more comprehensive Aviation Strategy. The final Aviation Strategy is expected in 2019.

Beyond the Horizon: The Future of UK Aviation

4.4.7 The Government announced that the DfT is currently progressing work to develop a new strategy for UK aviation[35] that will set out the long-term direction for aviation policy to 2050 and beyond. It is anticipated that the strategy will be published by the end of 2019 and that it will sit alongside the Airports National Policy Statement (NPS). Together, they will constitute the Government's new aviation policy and framework.

4.4.8 A call for evidence was published in July 2017 which invited views on the proposed aims, objectives, policy priorities and timetable for the strategy. This document, Beyond the horizon: the future of UK aviation, affirms the Government's support for the growth of airports outside the South East of England. It also states that the Government's declared preferred option for one new runway in the South East (by 2030) *"will not open for at least 10 years and it is vital that the UK continues to grow its domestic and international connectivity in this period, which will require the more intensive use of existing airport capacity"*.

4.4.9 In considering the approach to be taken for the expansion of regional airports, the Government states that the*y "are aware that a number of airports have plans to invest further, allowing them to accommodate passenger growth over the next decade using their existing runways, which may need to be accompanied by applications to increase existing caps. The government agrees with the Airport Commission's recommendation that there is a requirement for more intensive use of existing airport capacity and is minded to be supportive of all airports who wish to make best use of their existing runways"*.

4.4.10 The Government undertook consultation in autumn 2017 and has now considered the responses received; it has set out how it will address these in the next stages of the strategy's development. The Government's commitment to the growth of regional airports was recently reaffirmed in the Secretary of State for Transport's June 2018 statement concerning the proposed expansion of Heathrow[36]; recognising that a new operational runway at Heathrow is still a number of years away, and consistent with the Airports Commission's recommendations, he states that "*the government is supportive of airports beyond Heathrow making best use of their existing runways*".

4.4.11 The overarching aim of the strategy is to achieve a safe, secure and sustainable aviation sector that "*meets the needs of consumers and of a global, outward-looking Britain*". This aim is underpinned by the following objectives:

- Help the aviation industry work for its customers;

[35] Written Statement to Parliament on Airport Capacity and Airspace Policy – 2nd February 2017.
[36] Secretary of State for Transport (2018) *Statement by the Secretary of State for Transport about the proposed expansion of Heathrow airport*. Available from: https://www.gov.uk/government/speeches/proposed-heathrow-expansion [Accessed August 2018].

- Ensure a safe and secure way to travel;
- Build a global and connected Britain;
- Encourage competitive markets;
- Support growth while tackling environmental impacts; and
- Develop innovation, technology and skills.

Airports National Policy Statement

4.4.12 The Airports NPS was published in June 2018. It provides the primary basis for decision making on development consent order (DCO) applications for nationally significant aviation-related development and, specifically, a north-west runway at Heathrow Airport.

4.4.13 Whilst the Proposed Development is not of a scale considered to be nationally significant and does not relate to additional capacity in the South East of England, it is important to consider the proposals in the context of this national policy on aviation. Specifically, at paragraph 1.39 of the NPS, the Government confirms that it is supportive of airports beyond Heathrow making best use of their existing runways, albeit that they recognise that the development of airports can have positive and negative impacts, including on noise levels. Consistent with paragraph 1.29 of 'Beyond the horizon: the future of UK aviation, 'Making best use of existing runways', the Government states that any proposals should be judged on their individual merits by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts.

4.4.14 Paragraph 1.42 states that airports wishing to make more intensive use of existing runways will still need to submit an application for planning permission or development consent to the relevant authority, which should be judged on the application's individual merits. However, in light of the Airports Commission's findings on the need for more intensive use of existing infrastructure as described at paragraph 1.6 of the Airports NPS, the Government accepts that it may well be possible for existing airports to demonstrate sufficient need for their proposals, additional to (or different from) the need which is met by the provision of a north-west runway at Heathrow Airport. The Government's policy on this issue will continue to be considered in the context of developing a new Aviation Strategy.

Airports Commission Discussion Paper 06: Utilisation of the UK's Existing Airport Capacity

4.4.15 The Airports Commission, during its investigation, looked at the potential to redistribute demand away from airports in London and the South East of England. The study suggested that there is relatively little scope for redistribution; however, it did recognise that regional airports and those serving London and the South East of England, other than Gatwick and Heathrow, play a crucial national role. This is especially so at a time when the major London airports are already operating very close to capacity.

4.5 Other Material Considerations

West of England Joint Local Transport Plan 3 2011-2026

4.5.1 The Joint Local Transport Plan (JLTP) covers a 15 year period between 2011 and 2026 and sets out the transport strategy for the sub-region. The plan aims to deliver an affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities.

4.5.2 The JLTP recognises the significant positive impact that Bristol Airport has on the region's economy as one of the fastest growing regional airports in the UK and aims to support its growth. In this context, the JLTP seeks to achieve improved access to Bristol Airport by public transport and through the delivery of the SBL (completed in January 2017).

West of England Joint Transport Study

4.5.3 A West of England Joint Transport Study (JTS) has been prepared by the four West of England authorities. The JTS is intended to provide a clear direction for the long-term development of the transport system in the sub-region to 2036 and beyond and will form the basis for the next JLTP and transport investment programme.

4.5.4 The JTS makes clear that there is a strong case to significantly improve surface connectivity to Bristol Airport, both by public transport and road, and identifies two major investment proposals. The first is for a new mass transit route between Bristol Airport and Bristol, to form part of a mass transit network for the urban area. The second proposal is for major improvements to the A38 between Bristol and Weston-super-Mare including a new M5 Junction 21A at Weston-super-Mare, a new highway link connecting from the M5 to the A38 at Langford and improvements on the A38 between Langford and Bristol Airport. The JTS highlights that this investment in local transport schemes will significantly improve connectivity and capacity to south Bristol and will unlock capacity for growth and new development in the area.

Strategic Economic Plan 2015 – 2030

4.5.5 The West of England Local Enterprise Partnership's Strategic Economic Plan (SEP) contains a vision for economic growth which is managed sustainably to ensure all those within the sub-region benefit and that the environment is protected and enhanced.

4.5.6 The SEP identifies the future aspiration to expand Bristol Airport and the potential for that growth to play a major role in the economic prosperity of the region. The document also includes a vision for easier local, national and international travel with improved strategic connections by 2030, supported by Bristol Airport.

North Somerset's Economic Plan 2017-2036

4.5.7 North Somerset's Economic Plan recognises the important role of Bristol Airport to the economy and connectivity of North Somerset. It highlights that the airport provides an opportunity to support the retention and expansion of the area's most cutting edge and innovative companies as a driver of productivity growth, as well as to attract inward investment. The Plan states that a key challenge is to ensure that Bristol Airport is developed to provide the necessary space for growing businesses.

4.5.8 In this context, the Economic Plan includes a number of actions relating to Bristol Airport, including to:

- Work with partners to maximise the role of the airport as a strategic employment location;
- Work with BAL to develop a campaign to encourage exporters/importers to use the airport's facilities;
- Attract high value inward investment, capitalising on identified niche clusters, supply chains and strategic transport connectivity; and
- Build on the role of Bristol Airport as a gateway to the North Somerset region, developing targeted support packages for international investors.

Supplementary Planning Documents

4.5.9 NSC has produced a number of Supplementary Planning Documents (SPD) to provide more specific detail on local plan policies, and to support decision making on planning applications. Those SPD of particular relevance to the Proposed Development are listed in **Table 4.3**.

Table 4.3 Supplementary Planning Documents

SPD	Summary
Biodiversity and Trees (December 2005)	The SPD seeks to ensure that development does not cause a net loss in the biodiversity resource of North Somerset.
Travel Plans (November 2010)	The SPD provides guidance to aid the preparation of travel plans.
Creating Sustainable Buildings and Places in North Somerset (March 2015)	The SPD covers the measures required to achieve sustainable buildings and places in North Somerset. The SPD provides detailed guidance on the implementation of policies for energy efficiency in both new and existing buildings, renewable and low carbon energy generation, Sustainable Drainage Systems (SuDS) and on BREEAM assessment. It also provides information on measures that can be taken for future proofing design in a changing climate and the transition to zero carbon development.
Development Contributions (January 2016)	The SPD provides more detailed guidance on the principles and operation of development contributions to support Core Strategy Policy CS34: Infrastructure delivery and development contributions.
Mendip Bats Special Area of conservation (SAC) Guidance on Development (January 2018)	Bristol Airport lies within the Zone B consultation band established in the SPD due to close proximity to important roost sites for greater and lesser horseshoe bats (*Hipposideros* species). Various requirements on survey and mitigation apply where there is potential for these species to be adversely impacted by development. This is considered in more detail in **Section 5** of this Planning Statement.
North Somerset Landscape Character Assessment (September 2018)	Bristol Airport is defined as Landscape Type G: Settled Limestone Plateau and its sub-group Landscape Character Area (LCA) G1: Broadfield Down Settled Limestone Plateau.

Bristol Airport Master Plan

4.5.10 British International Airport (now Bristol Airport or BAL) published its first Master Plan in 2006. The Master Plan covered the period up to 2030 and in 2011, BAL subsequently obtained planning permission from NSC for the major expansion of Bristol Airport to accommodate 10 mppa.

4.5.11 The 2013 APF recommends that airport master plans are updated every five years to "*provide a clear statement of intent on the part of an airport operator to enable future development of the airport to be given due consideration in local planning processes*". In this context, BAL is currently preparing a new Master Plan for Bristol Airport, with the early stages having been subject to very extensive public consultation.

4.5.12 As set out in **Section 2**, the new Master Plan will provide a strategy for the long-term growth of Bristol Airport to meet the forecast level of passenger demand by the mid-2040s, which is expected to be circa 20 mppa. BAL's broad approach to long-term growth was set out in an initial discussion document, Your Airport, Your Views, that was subject to public consultation between November 2017 and January 2018.

4.5.13 The second stage of non-statutory consultation on the emerging Master Plan commenced in May 2018 and closed in July 2018. Following best practice this included, and sought views upon, BAL's proposals for development at Bristol Airport to accommodate 12 mppa, as a first phase of planned growth in passenger capacity.

4.6 Summary

4.6.1 Development Plan policies CS23 and DM50 are the principal planning policies relating to the Proposed Development, although there is a wide range of other policies and material considerations that apply and which have been considered in the planning assessment presented in **Section 5**.

5. Planning Assessment

5.1 Introduction

5.1.1 Section 70(2) of the Town and Country Planning Act and Section 38(6) of the Planning and Compulsory Purchase Act 2004 set out that planning applications must be determined in accordance with the Development Plan unless material considerations indicate otherwise.

5.1.2 Based on the review of the Development Plan (including emerging policy), national planning policy, aviation policy and other material considerations presented in **Section 4** of this Planning Statement, a number of topics have been identified that are deemed to represent the key planning considerations relevant to the determination of the planning application for the proposed development of Bristol Airport to accommodate 12 mppa. These topics are as follows:

- Principle of Development;
- Development within the Green Belt;
- Social and Economic Impacts;
- Traffic and Transport;
- Noise;
- Air Quality;
- Land Quality and Use;
- Landscape and Visual;
- Heritage (including archaeology);
- Ecology;
- Water (including groundwater, surface water and flood risk);
- Community Well-being and Health; and
- Climate Change.

5.1.3 The following sections assess the Proposed Development against each of the topics listed above in-turn, drawing on the ES and other information prepared in support of the planning application where appropriate.

5.2 Principle of Development

5.2.1 Core Strategy Policy CS23 and Policy DM50 of the Sites and Policies Plan Part 1 are the principal, current Development Plan policies relating to development at Bristol Airport. They set out that proposals for the development of the airport will be required to demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure. Policy DM50 establishes the following criteria for development proposals within the Green Belt inset:

- It is required in connection with the movement or maintenance of aircraft, or with the embarking, disembarking, loading, discharge or transport of passengers, livestock or goods;

- 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.

5.2.2 **Table 5.1** assesses those elements of the Proposed Development within the Green Belt inset against this criteria.

Table 5.1 Assessment of the Proposed Development against Policy DM50

Policy DM50 criteria	**Assessment**
It is required in connection with the movement or maintenance of aircraft, or with the embarking, disembarking, loading, discharge or transport of passengers, livestock or goods.	The Proposed Development will enable the growth of Bristol Airport to accommodate 12 mppa. It therefore complies with this criteria.
Environmental impacts such as emissions are minimised, and there is no unacceptable noise impact.	The supporting ES assesses the environmental impacts of the Proposed Development and concludes that the effects of BAL's proposals for a 12 mppa capacity airport have been minimised and mitigated where necessary and that there would be no unacceptable noise impact. The Proposed Development therefore complies with this criteria. The environmental impacts of the Proposed Development are considered further in this Planning Statement in the sections below.
It is suitably sited, designed and landscaped so as not to harm the surrounding landscape.	The landscape and visual chapter of the ES demonstrates that the Proposed Development will have limited impact upon the surrounding landscape. The Design and Access Statement fully explains how the buildings have been sited and designed to minimise their impact and a full landscaping master plan accompanies the planning application. The Proposed Development therefore complies with this criteria. Further consideration of the impacts of the Proposed Development on landscape is contained in **Section 5.9**.
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.	The Proposed Development includes proposals to improve the capacity of the A38 in order to accommodate traffic associated with an additional 2 mppa. The accompanying Transport Assessment demonstrates that, with these improvements in place, there is sufficient capacity within the highway network to handle the additional traffic that will be generated by the Proposed Development. The proposal includes a variety of measures to encourage a modal shift towards an increased use of public transport as well as measures to mitigate the potential impacts of airport traffic on local communities. Overall, the Proposed Development complies with this criteria. The transport impacts of the Proposed Development are considered further in **Section 5.5**

5.2.3 With reference to the information provided in support of the planning application including the ES, **Table 5.1** demonstrates that the principle of development within the Green Belt inset is supported.

5.2.4 It is important to note that policies within the Development Plan principally relate to the development of Bristol Airport to 10 mppa, bringing forward previous policy contained within the North Somerset Replacement Local Plan (Policy T/12). On this matter, the supporting text to Policy CS23 sets out that "*Additional development requiring consent beyond 2011 is expected to form the subject of an Area Action Plan (AAP) or other development plan document, such as a subject-based plan for aviation, refining detailed criteria inappropriate at Core Strategy scale*". Similarly, the supporting text to Policy DM50 states that the policy wording and inset "*are sufficient to deal with minor development that requires a further grant of planning permission. Outside the inset, Green Belt policy applies and it would be for the developer to demonstrate very special circumstances that outweigh the harm to the Green Belt and any other harm*". As set out in **Section 2**, Bristol Airport has experienced significant growth since planning permission was granted in 2011 for expansion to 10 mppa and this growth is forecast to continue up to 20 mppa by the mid-2040s, guided by the new Master Plan. Emerging Development Plan policy responds to this forecast passenger growth beyond 10 mppa; Policy 4 of the JSP Publication Document supports the growth of Bristol Airport as a key strategic employment location whilst the Local Plan 2036 Issues and Options Document recognises that Bristol Airport policy needs to be reviewed in light of the growth ambitions for the airport.

5.2.5 Whilst the longer term Master Plan proposals continue to be developed and the new Local Plan is prepared, there is an immediate need to ensure that shorter term passenger demand can be met. Through review of existing infrastructure, facilities and capacity, BAL has determined that the existing airport site can accommodate 12 mppa without the need to expand significantly beyond the airport boundary; proposals are clearly articulated in the emerging Master Plan to deliver this growth, providing capacity until at least the mid-2020s, which are in-turn reflected in the planning application. In this context, the Proposed Development is consistent with the APF and the Government's emerging strategy for aviation, as well as the Airports NPS, which provide clear support for the growth of regional airports and making the best use of existing airport capacity. Not growing the airport beyond the permitted passenger cap of 10 mppa in the short to medium term would unduly constrain investment in airport infrastructure, limit improvements to passenger experience and, importantly, would not would not deliver the economic benefits to the local and wider region associated with airport expansion to 12 mppa. Restricting growth would also fail to address the latent, regional demand described in **Section 2** leading to further leakage to other regional airports as well as the larger London hubs. Such leakage would not be in accordance with the Government's support for the growth of regional airports as set out in the APF and the emerging aviation strategy.

5.2.6 In summary, current Development Plan policy supports the principle of development within the Green Belt inset and the supporting documentation demonstrates that the adverse impacts of the Proposed Development have been sufficiently mitigated. By bringing forward the necessary infrastructure required to support the growth of Bristol Airport to 12 mppa and meet passenger demand, and by making the best use of the existing airport site, the Proposed Development is in clear accordance national aviation policy, enabling the airport to grow and support regional economic development whilst the longer term proposals for Bristol Airport are advanced through the new Master Plan.

5.2.7 Development within the Green Belt is considered in in **Section 5.3** of this Planning Statement.

5.3 Development within the Green Belt

Overview

5.3.1 The Development Plan defines an inset that excludes land on the northern side of the airfield from the Green Belt; land to the south of the existing terminal building, including (inter alia) the runway and the existing Silver Zone long stay car parking area, as well as the A38, is within the Green Belt. The detailed inset was first established through the North Somerset Replacement Local Plan (2007) in order to accommodate the development requirements of Bristol Airport at that time. In response, the majority of development required to facilitate the expansion of the airport to 10 mppa is focused in the inset with 'very special circumstances' having been accepted by North Somerset Council in respect of those components of the scheme that are necessarily located within the Green Belt.

5.3.2 The Green Belt inset was subsequently confirmed through the adoption of the North Somerset Core Strategy (2017) and Sites and Policies Plan Part 1 (2016). In his report on the examination of the Core Strategy[37], the Inspector stated that the extent of the inset was appropriate given that existing development to the south of the airfield has little impact on the openness of the Green Belt and that the long-term development needs of the airport (beyond 10 mppa) were not at that stage defined. In this regard, at paragraph 64 of his report, the Inspector stated:

> *"Importantly however, the land uses permitted outside the current inset, apart from the operational airfield itself, are chiefly ground-level car parking. This use has relatively little effect on the essential openness or visual amenity of the surrounding rural Green Belt, save from close viewpoints, when compared with the prominent built form of the terminal and associated structures within the present inset. The land outside the inset therefore still contributes to the purposes of its inclusion within the Green Belt, notwithstanding the extant permission."*

5.3.3 At paragraph 65, the Inspector concluded:

> "*Moreover, the long-term development needs of the Airport in addition to the present permitted proposals are not defined or programmed in detail…The requisite exceptional circumstances to justify changing the Green Belt boundary… are therefore not made out and any further proposals outside the present inset should remain…Accordingly, no change to the present Green Belt boundary around Bristol Airport is presently justified and in this respect Policy CS6 is sound as submitted.*"

5.3.4 In consequence, the detailed Green Belt inset principally reflects growth of the airport to 10 mppa and in this context, Policy CS6 of the Core Strategy states "*Further amendments to the Green Belt at Bristol Airport will only be considered once long-term development needs have been identified and exceptional circumstances demonstrated*".

5.3.5 As highlighted in **Section 3.2**, the development needs of Bristol Airport have now been clearly established through the emerging Master Plan and the Proposed Development forms an important first phase of this future growth. This is recognised in the Local Plan 2036 Issues and Option Document which outlines four options for removing land in the Green Belt to facilitate the future growth of the airport, three of which show the development areas associated with this application removed from the Green Belt. However, at this time much of the southern part of the airport site remains within the Green Belt. The NPPF (Protecting Green Belt land) establishes that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently

[37] The Planning Inspectorate (2012) *Report to North Somerset Council by Brian J Sims: Report on the Examination of the North Somerset Core Strategy Development Plan Document*.

open; the essential characteristics of Green Belts are their openness and their permanence. The NPPF and Policy DM12 of the Sites and Policies Plan Part 1 establish that inappropriate development in the Green Belt is, by definition, harmful to the Green Belt and should not be approved except in 'very special circumstances'. Paragraph 144 of the NPPF sets out that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations; any inappropriate development outside of the Green Belt inset at Bristol Airport must therefore demonstrate 'very special circumstances' to justify it.

5.3.6 Reflecting Green Belt policy, BAL has sought to maximise the development required to facilitate the expansion of Bristol Airport to 12 mppa within the existing Green Belt inset. However, it has not been possible to locate all of the components necessary to accommodate an additional 2 mppa in this area and as a result, the planning application includes development within the Green Belt. The components of the Proposed Development located within the Green Belt are:

- Enhancements to airside infrastructure including construction of a new eastern taxiway link and taxiway widening (and fillets) to the southern edge of Taxiway GOLF;
- Car parking including the year-round use of the existing Silver Zone car park extension (Phase 1) and a further extension to the Silver Zone car park (Phase 2);
- Improvements to the A38 between the main airport access roundabout and West Lane.

5.3.7 At paragraphs 145-146, the NPPF identifies that certain forms of development are not inappropriate in the Green Belt provided that they preserve openness and do not conflict with the purposes of including land within it. The types of development listed as not being inappropriate include engineering operations and local transport infrastructure that can demonstrate a requirement for a Green Belt location.

5.3.8 When assessed against these criteria, the proposed extension to the Silver Zone car park (Phase 2) is considered by BAL to be 'inappropriate' development within the Green Belt whilst the operational change to Phase 1 would represent a departure from an existing permission and could be also be deemed to be 'inappropriate'. The proposed improvements to the A38 constitute local transport infrastructure and will enhance accessibility to the airport. Being located alongside/adjacent to an existing highway, the scheme would preserve openness and not conflict with the purposes of including land within the Green Belt. The proposed enhancements to airside infrastructure, meanwhile, would be 'engineering development' comprising of the laying of hardstanding only and would also not affect the openness of the Green Belt. In consequence, BAL considers that both components, the proposed improvements to the A38 and enhancements to airside infrastructure, are not inappropriate development; however, should other parties conclude differently, and to ensure a robust assessment, both are considered here as 'inappropriate development'.

Very Special Circumstances

5.3.9 'Very special circumstances' must be demonstrated to justify those components of the Proposed Development that are located in the Green Belt and deemed to be inappropriate development. A number of very special circumstances were advanced by BAL in support of its application for development of the airport to accommodate 10 mppa (and, subsequently, in seeking a change to the phasing of car parking set out in that permission) and have been accepted by NSC. It is submitted that a number of similar very special circumstances exist that justify those components of the Proposed Development located in the Green Belt. These are:

- The need for development in the Green Belt;
- Insufficient space in the Green Belt inset to accommodate development requirements;

- No further suitable and available sites for car parking outside of the Green Belt;
- Policy support for growth at Bristol Airport;
- The socio-economic benefits of expansion; and
- Minor harm to the openness of the Green Belt.

5.3.10 These very special circumstances are considered in-turn below.

Need for Development in the Green Belt

5.3.11 For operational reasons, and to minimise the potential for adverse environmental effects upon surrounding properties, it has not been possible to focus all of the infrastructure and facilities required to support a passenger throughput of 12 mppa within the Green Belt inset. The elements of the scheme within the Green Belt are the proposed operational improvements to the airfield, highway enhancements and car parking necessary to accommodate a further 2 mppa. The following sub-sections set out the reasons why this development is required.

Enhancements to airside infrastructure

5.3.12 Changes to airside infrastructure and facilities are required to support aircraft movements, passenger transportation and aircraft servicing for an additional 2 mppa. The proposed new eastern taxiway link at the far eastern end of the runway will provide an additional linkage between the runway and the east apron. This will allow for improved access to the runway, providing a more efficient taxiway system for sequencing aircraft and minimising ground delays for aircraft awaiting departure.

5.3.13 Taxiway widening (and fillets) to the southern edge of the northern most taxiway (Taxiway GOLF) is required to provide a parallel taxiway system for improved access and movement of aircraft. This will largely facilitate aircraft turning, helping to ensure efficient operation, minimise delays and reduce disruption to passengers.

5.3.14 These airside infrastructure improvements, which by virtue of the location of the airfield are within the Green Belt, are necessary to facilitate the growth of Bristol Airport to 12 mppa. In any case, as set out above, BAL considers that this element of the scheme is not inappropriate development in the Green Belt.

Highway improvements

5.3.15 BAL is proposing to undertake a significant improvement of the A38 between the main airport access roundabout and West Lane. The Transport Assessment[38] prepared in support of the planning application has demonstrated that the improvements will be required to accommodate an additional 2 mppa in this exact location within the Green Belt in order to improve traffic movement, way finding legibility and road safety on the local road network surrounding the Bristol Airport site. In any case, as set out above, BAL considers that this element of the scheme is not inappropriate development in the Green Belt.

5.3.16 The traffic and transport impacts of the Proposed Development are discussed further in **Section 5.5** of this Planning Statement.

[38] PBA (2018) *Development of Bristol Airport to Accommodate 12mppa: Transport Assessment*.

Car parking

5.3.17 An additional 2 mppa will increase the demand for passenger car parking at the airport site; car parking is the only component of the Proposed Development that is clearly inappropriate development in the Green Belt. The need for car parking has previously been accepted by North Somerset Council as a 'very special circumstance' justifying development in the Green Belt, initially in its decision to grant planning permission in respect of the airport's expansion to 10 mppa[39], subsequently in relation to the development of the Silver Zone car park extension (Phase 1)[40] and most recently in the granting of consent for the temporary use Phase 1 over the winter 2018/19 period[41].

5.3.18 In order to determine the need for car parking in the Green Belt associated with an additional 2 mppa, an important first step is the consideration of public transport, which influences the level car parking demand. BAL is proposing an ambitious modal share target of 15% for sustainable travel and will commit in the Section 106 Agreement to prepare an ASAS in conjunction with the Transport Forum. This target has been carefully calculated taking into account the current modal share of 12.5% and the limited period of time for investment in public transport before 12 mppa is reached and is considered to be realistic and achievable given BAL's ability to influence passenger travel choice. Delivered through the Draft Workplace Travel Plan, a non-single occupancy vehicle target of at least 25% for employees is also proposed and no additional employee car parking is being provided as part of the scheme (in order to reduce further the requirement for parking spaces and associated land take). These modal share targets are supported by further measures to encourage sustainable travel contained in the proposed Section 106 Heads of Terms (described in **Section 5.5** of this Planning Statement) and provide the starting point for calculating car parking demand associated with an additional 2 mppa.

5.3.19 An assessment of parking demand[42] has been undertaken in support of the planning application which has identified that the expansion of Bristol Airport to 12 mppa will (based on a public transport modal share of 12.5%) result in a circa 39% increase in the number of passengers parking at the airport between 2017 and 2026, equivalent to over 22,600 spaces to service peak demand in 2026. The principal drivers of the forecast increase in demand are:

- **Growth in underlying passenger demand at Bristol Airport associated with expansion to 12 mppa**: An additional 2 mppa will increase passenger movements to and from the airport site. Despite continued investment in public transport by BAL, it is expected that a large proportion of these passengers will travel by car resulting in an increase in demand for car parking.
- **Forecast changes in Bristol Airport's UK catchment area**: The *likelihood* to park at Bristol Airport varies by different passenger geographies, with those passengers originating from beyond the immediate Bristol area being considerably more likely to drive to the airport due a lack of direct and attractive public transport links generally.

  There has been an emerging trend in the geographic split of UK outbound demand with a decrease in the proportion of passengers who come from the Bristol and surrounding areas balanced by increases in the proportion of passengers originating from South Wales and outer South West catchments reflecting the addition of routes and greater flight frequencies. Despite significant investment by BAL, accessibility from these outer catchment areas to the airport by

[39] Application number 09/P/1020/OT2.
[40] Application number 16/P/1486/F.
[41] Application number 18/P/4007/FUL.
[42] Teneo Consulting (2018) *Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum: Parking Demand Study*.

public transport is relatively low which has led to an increasing propensity for passengers originating from these catchments to access Bristol Airport by car.

The Parking Demand Study states that, as the airport continues to develop, this trend is expected to continue, increasing the levels of proportional demand from regions further from Bristol, specifically those South West of the airport. With increased penetration in parts of the airport's catchment area which are relatively poorly served by public transport, there is expected to be a consequential increase in the demand for car parking.

- **Lack of regional and sub-regional public transport options:** The West of England Joint JTS[43] provides evidence that transport investment in the sub-region and across the South West is less than half the expenditure that could be expected in other parts of the country. This results in fewer public transport choices for passengers across the region such that Bristol Airport experiences a higher proportion of car borne passengers compared to airports in other regions. It is not reasonable to expect BAL to remedy widespread regional underinvestment in public transport and in this regard, the emerging JSP and the JTS envisage major public investment in the transport network including strategic public transport infrastructure that will be funded through a variety of possible mechanisms including, for example, DfT major schemes funding.

5.3.20 BAL expects to increase car parking capacity from circa 16,700 spaces in 2018 (at 8.7 mppa) to approximately 18,400 spaces in 2021 (at 10 mppa) through the completion of MSCP Phase 1b and the construction of MSCP Phase 2 (including public transport interchange) as part of approved plans to expand the airport to serve 10 mppa. Despite these planned increases in parking provision, and taking into account public transport usage of 15% for passengers, the Parking Demand Study estimates that a total of 3,900 additional spaces will be required, some of which will be delivered within the Green Belt (see below).

5.3.21 It is also important to consider the *nature* of the demand for car parking as this influences the type of car parking required and its phasing. In this regard, the Parking Demand Study sets out that there has been an increase in demand for low-cost car parking at the airport site and that a low-cost parking option is likely to better meet customer needs and benefit from greater levels of underlying demand, while also being better positioned to reduce the market share of unauthorised offsite providers. This is due to a number of factors, including:

- historic customer preference and underlying demand for low-cost car parking;
- increasing propensity for leisure passengers to use low-cost car parking; and
- growth in the number of aircraft based at the airport.

Historic customer preference and underlying demand for low-cost car parking

5.3.22 The Parking Demand Study highlights that there is an existing preference for low-cost parking amongst Bristol Airport customers. Silver Zone (the low-cost official parking) is more likely to be booked further in advance than the Long Stay or Premium Parking, based on data collected by BAL. As such, circa 54% of customer who book Silver Zone do so at least two weeks in advance, as opposed to only around 36% of customers for other airport car parks. The Study states that this potentially indicates a greater underlying demand for Silver Zone compared to other forms of parking.

[43] Atkins (2017) *West of England Joint Transport Study: Final Report*. Available from https://www.jointplanningwofe.org.uk/consult.ti/JTSTransportVision [Accessed October 2018].

Increasing propensity for leisure passengers to use low-cost car parking

5.3.23 The Parking Demand Study sets out that a large and growing proportion of customers have a preference for low-cost parking due to a lower ability and willingness to pay, their reason for travel, and their trip duration. As highlighted in **Figure 2.2**, the largest increase in demand for Bristol Airport from 2015 to 2026 is forecast to be in North Devon and Cornwall and South Wales regions. The Parking Demand Study highlights, based on ONS data, that residents of North Devon and Cornwall and Wales are on average in the lower quartile of household income in the UK such that customers from these areas are more likely to have a lower ability / willingness to pay for car parking, and are more price-sensitive. This is compounded by the fact that passengers from these regions also travel further on average to reach the airport, and therefore have a higher incremental cost of travelling to the airport than other corridors and are more likely to have time to park slightly further away from the main terminal. Given the forecast growth in passengers from the North Devon, Cornwall and South Wales corridors, the Parking Demand Study concludes that lower cost car parking provision is likely to be increasingly attractive to the average customer in the future.

5.3.24 The reason for air travel is also likely to influence a passenger's willingness to pay for parking. During the peak periods, leisure travellers including those visiting friends and family make up a higher proportion of total passengers; the additional capacity is most likely to be used during peak periods, and therefore will be predominantly catering for leisure travellers during those times. The Parking Demand Study highlights that leisure customers are likely to be more price-sensitive, as they will incur the total cost of their travel, while business travellers often have a higher budget or do not incur the total cost of travel themselves. In the summer where demand is greatest, and the additional capacity is required, the highest proportion of passengers are leisure customers, and therefore prioritising low-cost parking would be most likely to satisfy the preferences of these customers.

5.3.25 Trip length may also affect parking preference. Leisure customers have an average trip length of circa 11 days, compared to business travellers who travel on average around 7 days, based on 2017 CAA data. Therefore, leisure travellers will require longer parking durations than business customers which is likely to in incur greater cost for parking. The Parking Demand Study sets out that this may contribute to leisure customers opting to utilise low-cost parking options.

Growth in based aircraft

5.3.26 Bristol Airport currently hosts a large number of based aircraft (aircraft which are parked in the airport overnight and leave early in the morning with a first full load of passengers). In the peak months of 2018, 27.8% of all flights outbound from Bristol Airport were in this 'first wave' and were serviced by based aircraft.

5.3.27 As these flights are early in the morning, passengers on the first wave-based aircrafts are more likely to drive and park than at other points during the day, due to a lack of alternative travel options to the airport, increasing the total demand for airport parking. Further to this, a large proportion of passengers on first wave flights are leisure travellers that, as demonstrated above, are more likely to prefer low-cost parking.

5.3.28 Bristol Airport forecasts a growth in the number of based aircraft until 2026. The Parking Demand Study concludes that this will correlate with a growth in demand for low-cost parking.

Summary

5.3.29 The Parking Demand Study indicates that, in combination, the factors outlined above (historic customer preference and underlying demand for low-cost car parking, the increasing propensity for leisure passengers to use low-cost car parking and growth in the number of aircraft based at the airport) will drive greater demand for the provision of low-cost parking capacity. In this context,

the Study concludes that the development of low-cost car parking is a more practical first step to develop further parking capacity at Bristol Airport and that there is an immediate need for this provision.

Insufficient Space in the Green Belt Inset to Accommodate Development Requirements

5.3.30 BAL has demonstrated a strong commitment to maximising development within the Green Belt inset through the ongoing implementation of the extant consent for expansion of Bristol Airport to 10 mppa. Most recently, this has included the completion of MSCP Phase 1a (providing a total of 1,162 spaces) with the second phase (Phase 1b), providing a further 716 spaces, commenced in October 2018 and due to be completed in 2019. BAL will also construct and operate a further MSCP including transport interchange (Phase 2), as per its extant consent; the construction of this facility is due to commence in the winter 2019/20 period.

5.3.31 In developing its proposals for expansion of the airport to 12 mppa, BAL has sought to maximise further the overall level of growth in the Green Belt inset, taking into account land availability, environmental effects and national policy. This is consistent with the overarching objective of the planning application which is to make the best and most efficient use of the existing airport site. In this regard, the following components of the scheme are located in the northern portion of the airport site and within the inset:

- Terminal extensions and canopies;
- Eastern walkway and pier;
- Acoustic barrier;
- Service yard;
- MSCP Phase 3; and
- Enhancements to the internal road system.

5.3.32 Despite this, there is insufficient space within the inset to accommodate all of the development necessary for Bristol Airport to grow to 12 mppa. This in part reflects the fact that Bristol Airport already operates on an efficient and compact site and land-take is one of the lowest of any UK regional airport (see **Table 5.2**).

Table 5.2 Airport area per mppa – UK airport

Airport	MPPA	Area (ha)	Area per MPPA (ha)
Manchester	27.9	800	28.7
Edinburgh	13.4	375	28.0
Birmingham	12.98	340	26.2
Glasgow	9.9	340	34.3
Bristol	**8.2**	**196**	**23.9**

Airport	MPPA	Area (ha)	Area per MPPA (ha)
Belfast	5.8	1420	244.8
Newcastle	5.35	244.7	45.7
East Midlands	4.9	445	90.8

Source: UK airports

No Further Suitable and Available Sites for Car Parking Outside of the Green Belt

5.3.33 A Parking Strategy[44] has been developed as part of the emerging Master Plan to assess car parking options to accommodate future demand associated with the growth of Bristol Airport, including the additional 3,900 spaces necessary for 12 mppa. A sequential approach has been adopted to the identification of possible siting options which has in-turn informed BAL's preferred parking solution. The approach is as follows:

- Maximise the amount of car parking on the northern side of the airport, within the Green Belt inset, whilst taking into account other environmental impacts
- Explore the provision of car parking spaces at locations remote from the airport;
- Maximise the level of car parking within the existing airport site; and
- Explore the provision of car parking spaces in Green Belt locations contiguous to the airport site.

Maximising car parking in the Green Belt inset

5.3.34 As set out above, BAL has sought to maximise development, including car parking, within the Green Belt inset. The adopted car parking solution includes further multi-storey capacity in the northside of the airport providing circa 2,150 spaces, the delivery of which will result in a more land-efficient and high density form of parking in the inset. The capacity of the proposed MSCP (Phase 3) takes into account existing and consented multi-storey car parking provision at the airport site and a careful analysis of the demand for premium long stay car parking.

5.3.35 The proposed MSCP (Phase 3) will not meet the total car parking requirement of 3,900 spaces (there would be a residual unmet requirement of 1,750 spaces) and therefore further additional multi-storey/decked car parking on the northside of the airport and within the inset has been considered, despite this being inconsistent with the need for low-cost car parking. However, consented and proposed multi-storey car parking already covers a substantial proportion of the inset area and landscape analysis of this option (which can be made available) indicates that additional multi-storey/decked car parking beyond that associated with MSCP Phase 3 would result in the overdevelopment of the northside of the airport. This would have significant visual impacts on residential receptors along Downside Road, particularly taking into account the topography of this area and the requirement for a gyratory to improve traffic flows within the airport site which significantly limits siting options.

[44] Wood (2018) *Parking Strategy: Final Report.*

5.3.36 Further multi-storey or decked car parking to the north of the airport site (beyond that already developed, consented and proposed) would also not meet the forecast increased demand for low-cost car parking (as outlined above) and would result in an overprovision of premium spaces[45]. This is because of the level of charging required to make such a significant investment commercially acceptable. UK airports operate in a highly competitive environment across all facets of their business. At Bristol Airport, income from areas such as parking allows BAL to keep charges to airlines low, benefiting travellers through lower air fares and increased connectivity. It also supports the ongoing investment in facilities necessary to maintain a modern, efficient airport. Building infrastructure that is not required by customers has a negative impact on the overall business and ultimately on current and future passengers. Further, a parking solution that does not accurately reflect passenger demand is likely to encourage unauthorised off-site provision and on-street parking to meet the demand for low-cost parking that cannot be met on the airport site.

5.3.37 The NPPF (at paragraph 80) establishes 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, and in this context, commercial considerations such as the nature of car parking demand is a material consideration in demonstrating 'very special circumstances' to justify car parking in the Green Belt. In this regard, commercial considerations were previously accepted by North Somerset Council as representing a very special circumstance to justify bringing forward the existing Silver Zone car park extension (Phase 1) ahead of MSCP Phase 1. In this case, the Planning Officer's report (dated 14.09.16) stated that it would be *"unrealistic… to suppose that any business would front load expensive infrastructure much larger and much sooner than is reasonably needed*". This view was upheld in the refusal of an application[46] for Judicial Review challenging the Council's granting of consent in which the claimant contested that the decision had inappropriately taken into account BAL's pricing strategy. In refusing permission to proceed, My Justice Hickinbottom stated: "*In concluding that there were very special circumstances in 2016, the Council was entitled to take into account the different economic trends and requirements then shown.*"

Offsite car parking

5.3.38 In order to accommodate the residual requirement for 1,750 spaces, potential locations for offsite car parking (park and ride) at strategic locations remote to Bristol Airport including brownfield land and sites outside of the Green Belt were considered in accordance with the sequential approach.

5.3.39 A total of 25 potential sites were initially identified through the Parking Strategy and assessed against a wide range of criteria to identify possible options for accommodating demand off site. The initial assessment determined that certain locations could not be progressed further for reasons including:

- Proximity to dense residential development;
- Poor quality interchanges required to access the airport, for example having to catch a bus/train to then catch another bus would be simply not viable for passengers with large suitcases/heavy bags;
- Existing or proposed planning applications for the area;
- Detrimental impacts to the local community if current land use was changed to parking;

[45] Premier parking is located within walking distance of the terminal building and is aimed at business passengers for short to medium stay lengths.
[46] Parking Operators Against Monopolies Limited versus North Somerset Council: Ref CO/6483/2016.

- Sites located far from the airport - being too far from the airport would result in capital expenditure and operating costs being too high and unattractive to passengers;
- Sites that could only support a low number of spaces.

5.3.40 By discounting sites that the initial sifting stage highlighted as not being suitable, a refined shortlist of 12 sites was developed and taken forward for more detailed consideration. The analysis of these 12 shortlisted sites above has revealed that a number of constraints affect their deliverability including (inter alia) distance from the airport (which would affect passenger experience and may undermine uptake), the rural nature of the local road transport network (which means that the operational viability of these locations is marginal), high land prices, availability and the need for remediation. In consequence, the Parking Strategy concludes that a remote, offsite option is unlikely to be achievable at 12 mppa (it should also be noted that three of the 12 sites are within the Green Belt in any case).

5.3.41 As there are presently no suitable off-site park and ride sites outside the Green Belt, this option has not been taken forward as part of the adopted parking solution. Notwithstanding this, the Parking Strategy recommends that BAL continues to review and monitor the availability of strategic offsite locations in considering car parking options for the growth of Bristol Airport beyond 12 mppa.

Maximise the level of car parking within the existing airport site

5.3.42 As no suitable, remote offsite car parking options were identified, land within the current airport site, but also within the Green Belt, was examined. Two options were identified and considered as part of the Parking Strategy; decked car parking southside and year-round use of the existing seasonal Silver Zone car park (Phase 1) extension.

5.3.43 Decked car parking in the southside of the airport would be located over the existing Silver Zone car park and be within the Green Belt. Due to the nature and scale of development in this location, landscape impacts and harm to the openness of the Green Belt would be greater than a solution involving surface level car parking. Further, the construction costs involved would require the car park to be charged at a premium; BAL's experience, and that of other airports, suggests that premium parking is only acceptable if customers can then walk to the terminal, something that is not possible from the Silver Zone.

5.3.44 As an alternative to decked car parking, the adopted parking solution includes the year-round use of the existing seasonal Silver Zone car park (Phase 1) extension. The use of this car park is currently restricted by condition to between May and October each year in order to meet seasonal demand[47].

5.3.45 Seasonal restrictions on use of the Silver Zone car park extension delivers an inefficient use of space and resource. There is a need to allow a period of several weeks at the start and end of the usage period to set up the facility in terms of temporary lighting, security checks and to ensure there is adequate time before the closure of the area for it to empty of vehicles (if the area does not empty of its own accord, cars need to be moved earlier than needed, occupying self-parking bays and reducing the overall capacity of the car park). Temporary facilities are required to manage the area, including diesel powered, mobile lighting rigs.

5.3.46 Year-round use of the area will be determined by demand. Restriction of lower priced capacity in winter months limits the ability of BAL to reduce the impact of unauthorised off-site parking; there are occasions, especially around school holidays, where demand may need to be suppressed

[47] Consent was granted in October 2018 for the temporary use of the car park over the Winter 2018/19 period (application reference 18/P/4007/FUL).

through price to ensure the capacity is not exceeded. It should also be noted that seasonal restrictions for car parking are not commonplace for UK airports.

5.3.47 In this context, the year-round use of the car park would help cater for the increased year-round demand for low-cost parking associated with an additional 2 mppa whilst making best use of the existing airport facilities in accordance with national aviation policy. It is important to note that, as this is an existing facility that already caters for peak car parking demand during the summer months, it would not affect the residual requirement for spaces identified in the Parking Demand Study (3,900 spaces). Instead, it would ensure that BAL is better able to serve demand outside the summer peaks and, further, will also help to ensure that the airport is better positioned to offer an attractive alternative low-cost product to unauthorised off-site providers. In this way, it remains an important component of the overall car parking solution.

5.3.48 It should be noted that the principle of car parking in this exact location has already been established and accepted in the granting of consent, by NSC, for the extension to the Silver Zone car park and measures have been successfully implemented to mitigate associated environmental impacts including, in particular, a landscape bund to the south of this area which successfully screens the car park, minimising landscape and visual impacts whilst providing important ecological habitat.

Sites contiguous to the Bristol Airport site

5.3.49 As it was not possible to accommodate all of the required car parking spaces within the Green Belt inset, at sites remote to Bristol Airport or within the existing airport site outside of the inset, in accordance with the sequential approach it was necessary to consider land contiguous to the existing airport site within BAL's ownership. The Parking Strategy identified land to south of the existing Silver Zone car park extension (Phase 1) as a potential site for surface level car parking (no other suitable and available sites were identified). This site is within BAL's ownership (and is therefore available) and has capacity to provide circa 2,700 spaces.

5.3.50 The Parking Strategy highlights that this site:

- Is well-located from an operational perspective, allowing car parking to the south of the airport site to be consolidated in one location;
- Benefits from existing services and facilities associated with the Silver Zone car park including the Silver Zone car park reception building and associated shuttle bus services that transfer passengers to/from the terminal;
- Is well-suited to block parking, where public access is not required and car parking spaces can be maximised thereby making the best use of the land without the need for significant additional built development and minimising the need for lighting;
- Has good access to the A38 and terminal via the existing southern access road;
- Can be readily integrated with wider surface access proposals and improvements associated with development of the airport to 12 mppa; and
- Is not within/adjacent to national or local designated sites.

5.3.51 Importantly, the nature of the car parking that could be provided in this location (i.e. long-stay, block parking) would help to meet the demand for low-cost car parking.

5.3.52 Expansion of the Silver Zone car park in this location will inevitably result in some encroachment into the countryside. However, this encroachment has been minimised and mitigated through careful design and sensitive landscape and boundary treatments (including a landscape bund) such that impacts on the openness of the Green Belt would be minor. Importantly, by helping to meet

demand for low-cost car parking, this option could also lessen the opportunity for, and impact of, unauthorised car parks.

5.3.53 It should be noted that in respect of car parking in the Green Belt consented as part of the expansion proposals to 10 mppa, the Planning Officer's report to Committee (dated 03.03.10) stated that, for the airport to grow in accordance with national policy on aviation, then allowing some car parking in the Green Belt was justified and that "*a properly planned and serviced location that is within and contiguous with the airport boundary is the most practical option*". It is submitted that the same justification for the Silver Zone car park extension (Phase 2) applies in this case.

Summary

5.3.54 BAL is proposing an ambitious modal share target of 15% of passengers arriving at the airport by sustainable travel, supported by further measures to encourage sustainable travel contained in the proposed Section 106 Heads of Terms. Further, through the Draft Workplace Travel Plan, a modal share target of at least 25% for employees to travel to the airport by non-single occupancy car is also proposed, such that no additional employee car parking is being provided as part of the scheme. To meet the residual demand for car parking associated with an additional 2 mppa, BAL has followed a sequential approach to the provision of car parking, maximising the amount of spaces provided outside of the Green Belt and making best use of existing car parking facilities within it. This has taken into account landscape and visual impacts, the nature of car parking demand (which indicates that there is an immediate need for low-cost provision ahead of further multi-storey car parking)

5.3.55 There is a balance to be struck between overall car parking provision and costs, to ensure that North Somerset Council does not come under pressure for off-airport car parks in other Green Belt locations, which are likely to have more impact either on the Green Belt or environmentally. Overall, the preferred car parking solution, comprising of further MSCP provision northside, the year-round use of the existing extension to the Silver Zone car (Phase 1) and a further extension, maximises development in the Green Belt inset and makes the best use of existing facilities whilst ensuring that passenger demand is met as part of a holistic approach to sustainable travel.

5.3.56 The Parking Demand Study indicates that the construction of all car parking elements of the scheme are required to fulfil the capacity requirements associated with an additional 2 mppa but that, given the differences between the types of car parking proposed from a product and likely customer cost perspective and the forecast availability of premium parking capacity, a low-cost parking option will better meet customer needs and benefit from greater levels of underlying demand, while also being better positioned to reduce the market share of unauthorised offsite providers. The Study concludes that, for these reasons, further low-cost car parking provision to the south of the airport is a more practical first to develop further parking capacity at the airport.

5.3.57 Whilst the proposed car parking solution provides a total of circa 4,850 spaces against a requirement for 3,900 spaces, this additional capacity will provide the flexibility required to respond to the displacement of spaces during ongoing construction activity associated with the Proposed Development. Importantly, it will also help to ensure that the airport is better positioned to offer an attractive alternative low-cost product to unauthorised offsite providers.

Policy Support for Growth at Bristol Airport

5.3.58 National aviation policy, as set out in the APF and the Government's emerging strategy for aviation, as well as the Airports NPS, provide support for the growth of regional airports and making the best use of existing airport capacity. More broadly, the NPPF (at paragraph 104) makes clear the need to support investment in transport facilities and at paragraph 80 sets out that significant weight should be placed on the need to support economic growth and investment.

5.3.59 The APF, emerging JSP and the Development Plan support growth and development at Bristol Airport specifically, provided environmental impacts are controlled. The Local Plan 2036 Issues and Option Document, meanwhile, outlines four options for removing land in the Green Belt to facilitate the future growth of Bristol Airport, three of which show the development areas associated with this application removed from the Green Belt.

5.3.60 In this context, development proposals in the Green Belt are integral to the expansion of Bristol Airport to accommodate 12 mppa as part of a strategy that makes best use of the existing airport site. Sections 5.4 to 5.14 of this statement clearly demonstrate that the proposals would not result in significant adverse environmental effects and in consequence, the Proposed Development accords with the wider policy support for development at Bristol Airport.

Socio-economic Benefits of Airport Expansion

5.3.61 The important role that regional airports such as Bristol play in the success of the UK economy underpins national aviation policy. The APF states that "*airports in Northern Ireland, Scotland, Wales and English airports outside of London play an important role in UK connectivity*" and that "*new or more frequent international connections attract business activity, boosting the economy of the region and providing new opportunities and better access to new markets for existing businesses*". The APF, emerging JSP and the Development Plan recognise the important role that Bristol Airport specifically plays in the economic success of the South West region. Reflecting this, the November 2017 JSP Publication Document identifies Bristol Airport as a key strategic infrastructure employment location (Policy 4).

5.3.62 The Economic Impact Assessment[48] submitted in support of the planning application demonstrates the significant economic and regeneration benefits an additional 2 mppa will deliver to the local economy, West of England sub-region and the wider South West region (see **Section 5.4** for further details). The significant economic benefits of the Proposed Development form an important component of the scheme, none of which would be fully realised without some modest development in the Green Belt to allow for the necessary investment in infrastructure and car parking. In-turn, this will help to ensure that Bristol Airport continues to support the regional economy, consistent with the objectives of national aviation policy, and the Development Plan.

Minor Harm to the Openness of the Green Belt

5.3.63 As stated in the NPPF "*The fundamental aim of GB policy is to prevent urban sprawl by keeping land permanently open*". The Proposed Development seeks to make best use of the existing airport site and minimises development within the Green Belt. Importantly, no buildings outwith the inset are proposed and overall, the openness of the Green Belt will remain largely unchanged.

5.3.64 The proposed enhancements to airside infrastructure would comprise the laying of hardstanding only whilst improvements to the A38 are alongside/adjacent to an existing highway. Both components of the scheme would clearly, therefore, preserve openness.

5.3.65 The Proposed Development includes two areas of car parking within the Green Belt. The Silver Zone extension (Phase 1) is an existing car parking facility and whilst it is proposed that the area of parking be used year-round, associated development (lighting and CCTV columns) would be very minor and consistent with the current operation of the car park, cars will be valet parked so as to minimise vehicle movements on the site. Further, the existing landscape bund to the south of the site has successfully screened close range views of the car park and longer-range views are seen in the context of existing development at the airport. As set out above, the principle of car parking in

[48] York Aviation (2018) *An Economic Impact Assessment of Bristol Airport's 12 Million Passenger Per Annum Planning Application.*

this exact location has already been established and accepted in the granting of consent, by NSC, for the extension to the Silver Zone car park initially in 2011 and subsequently in 2016, and the car park has been successfully operated with negligible environmental impacts.

5.3.66 The extension to the Silver Zone car park (Phase 2) is located in a pasture field and block-parked cars together with associated lighting will be introduced into this area. However, this area is situated adjacent to the existing Silver Zone car park and the development would consist of similar elements to those already present in the existing (Phase 1) car parking area. Further, a landscape perimeter bund around the western, southern and eastern boundary of the car park, designed and planted to replicate the design of the bund sited around the Phase 1 extension, will screen close range views whilst the adoption of a lighting strategy will prevent any upward lighting and minimise any light spillage.

5.3.67 Overall, it is considered that the car parking proposals will result in only minor harm to the openness of the Green Belt. This is supported by the landscape and visual assessment of the ES, which confirms that this development would have minor landscape and visual impacts. It is also consistent with the conclusions of the Inspector in his report concerning the examination of the Core Strategy, which stated (at paragraph 64) that car parking "*has relatively little effect on the essential openness or visual amenity of the surrounding rural Green Belt, save from close viewpoints, when compared with the prominent built form of the terminal and associated structures within the present inset. The land outside the inset therefore still contributes to the purposes of its inclusion within the Green Belt, notwithstanding the extant permission [for expansion of the airport to accommodate 10 mppa]*".

Conclusion

5.3.68 In developing its proposals for the expansion of Bristol Airport to accommodate 12 mppa, BAL has sought to maximise development in the Green Belt inset; however, there is a demonstrable need for some components of this development to be located within the Green Belt. The scale of development within the Green Belt has been kept to a minimum and would not result in significant harm to the openness of the Green Belt; regardless, it is submitted that the very special circumstances outlined in this statement outweigh any harm to the Green Belt caused as a result of the Proposed Development. These very special circumstances incorporating considerations which clearly outweigh harm to the Green Belt include the need for development in the Green Belt, insufficient space in the inset to accommodate development requirements, policy support for the growth of Bristol Airport, the socio-economic benefits of expansion and the minor harm of the development proposed in the Green Belt on openness. With specific regard to car parking in the Green Belt, these very special circumstances also include the nature of the demand for car parking and the lack of alternative suitable sites (as demonstrated through the application of the sequential approach outlined above).

5.4 Social and Economic Impacts

5.4.1 Access to air services provides global connectivity which creates economic and social benefits. Aviation is a significant industrial sector in its own right[24]; air transport and aerospace contribute approximately £22 billion[26] to the UK economy annually, supporting 961,000 jobs[49]. Regional

[49] Oxford Economics (2014) *Economic Benefits from Air Transport in the UK*. Available from: https://d2rpq8wtqka5kg.cloudfront.net/281929/open20141119072800.pdf?Expires=1541682735&Signature=g8REQ37SPpBBrut5hXQbckOVTxcrJPfgekvhR~RoN1y6TLd4zkffaeESXntKK7jgYXEElq1y5ii03W2Rfe8K5DtZg~Qj79objoM2dYR8dsSneIWQqAkpBwT-DGlbY1-6iOuUDwYknRyw6kvPGsv4gnWfrncQmykUuEUa~AZ3aBe8kOABlrjTiaL0jrX6YJ7J0rTzITs~Zbtg3TwTaq1K3HFw0DOGUlV8lb5XlB0mzixhQxd4LBE7oIi8K2XjdMFyFB--OKSytNU6nclcGkPWhjkgQJFMBJgz5hEmkLbLnzLbY~ckCtMz8-DFV9ZxOX548HBcknsofXoo-yyhmJixKA__&Key-Pair-Id=APKAJVGCNMR6FQV6VYIA [Checked 08/11/2018]

airports are a significant component of the wider UK aviation sector. The APF states that "*airports in Northern Ireland, Scotland, Wales and English airports outside of London play an important role in UK connectivity*" and that "*new or more frequent international connections attract business activity, boosting the economy of the region and providing new opportunities and better access to new markets for existing businesses*".

5.4.2 In this context, Bristol Airport is a key economic driver within North Somerset, the West of England sub-region, the South West region and South Wales, delivering significant GVA and employment and providing substantial benefits to the wider economy by facilitating travel for business passengers and for inbound visitors. As highlighted in **Section 2.3,** around 3,960 people currently work on-site at the airport, which equates to approximately 3,480 FTEs; including indirect and induced jobs, this increases to an estimated 8,200 FTEs across the South West region[50]. Bristol Airport also has a wider economic role in supporting and facilitating prosperity in other sectors. The connectivity provided by the airport enables the flow of trade, investment, people and knowledge that are central to globally successful regions. Bristol Airport also plays a vital role in supporting the tourism sector, providing easy access to overseas markets, notably Germany, Spain, the Irish Republic, Italy and France. In total, it is estimated that Bristol Airport generates £1.7 billion of GVA in the South West economy (as at 2018).

5.4.3 The importance of Bristol Airport to the regional, sub-regional and local economies is recognised in national aviation policy, the Development Plan and, most recently, in the designation of Bristol Airport as a strategic employment location in Policy 4 of the JSP Publication Document (see **Section 4**). The role that the airport plays in supporting economic prosperity is also recognised in economic policy including the West of England SEP and North Somerset Economic Plan, which state that airport expansion provides an opportunity to secure business retention, attract inward investment and deliver productivity growth.

5.4.4 An Economic Impact Assessment has been undertaken in support of the planning application by York Aviation[51]. Using an industry standard, best practice approach, the economic footprint of the Bristol Airport at 12 mppa is determined, taking into account both direct and indirect employment and GVA. Wider, or catalytic impacts including socio-economic impacts and regeneration, are also considered.

GVA and Employment Impact of Expansion to 12 mppa

5.4.5 The findings of the Economic Impact Assessment indicate that the development of Bristol Airport to accommodate 12 mppa will generate significant GVA and employment benefits. It estimates that the addition of 2 mppa by 2026 will result in an increase in the total number of people employed on site from around 3,950 jobs (3,500 FTEs) in 2018 to 5,215 jobs (4,575 FTEs) in 2026 in addition to wider benefits associated with enhanced productivity (for example, improved access to international markets and supply chains, increased business exposure to competition and knowledge). The assessment forecasts that by 2026:

- The economic footprint of Bristol Airport within North Somerset alone will increase by £70 million (in GVA terms), supporting approximately 525 additional jobs (450 FTEs). When wider benefits are also included, this is likely to increase to £90 million (in GVA terms) and around 650 additional jobs (550 FTEs);

[50] York Aviation (2018) *Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum: Economic Impact Assessment*.
[51] York Aviation (2018) *Development of Bristol Airport to Accommodate 12 Million Passengers Per Annum: Economic Impact Assessment*.

- The economic footprint of Bristol Airport within the West of England will increase by £110 million (in GVA terms), supporting around 1,200 additional jobs (1,050 FTEs). When wider benefits are also included, this is anticipated to increase to £210 million (in GVA terms) and around 2,050 additional jobs (1,725 FTEs);
- The economic footprint of Bristol Airport within the South West region and South Wales will increase by £140 million (in GVA terms), supporting circa 2,125 additional jobs (1,750 FTEs). When wider benefits are also included, this will likely increase to £390 million (in GVA terms) and around 5,150 additional jobs (4,125 FTEs).

5.4.6 In addition to the GVA and employment benefits that will be supported by the operation of the airport as it grows in the future, additional (albeit transitionary) benefits will accrue as a result of the construction of the airport infrastructure required to enable the airport to reach 12 mppa. The Economic Impact Assessment estimates that, over the period to 2026, construction activities associated with the Proposed Development will support:

- £39 million in additional GVA (discounted) and 390 job years of employment (345 FTE years) in North Somerset;
- £52 million in additional GVA (discounted) and 995 job years (885 FTE years) of employment in the West of England (includes North Somerset);
- £71 million in additional GVA (discounted) and 1,665 job years (1,450 FTE years) of employment in the South West and South Wales (includes West of England).

5.4.7 Construction activity and operation of the airport at 12 mppa may generate some adverse economic impacts, such as congestion on the local road network. However, given the relatively small scale of the construction project, the phased nature of the development and the management and mitigation measures that will be implemented by BAL during the construction and operational phases (for example, investment in highways improvements, public transport enhancements and undertaking construction activity in accordance with the Outline CEMP contained in the ES) any such adverse impacts would be minor and, further, of a temporary nature.

Socio-economic Impact of Expansion to 12 mppa

5.4.8 The Economic Impact Assessment has undertaken a socio-economic cost benefit analysis of the impacts of the growth of Bristol Airport to 12 mppa. This has identified the following potential benefits of expansion:

- **Surface access time and costs**: expansion will ensure that passengers do not have to travel to alternative airports;
- **Flight-time savings**: expansion will help to ensure that passengers can fly direct to their intended destination;
- **Air-fare savings**: expansion will help to ensure that passengers are able to utilise the low-cost airline offer available at Bristol Airport;
- **Airport company**: as the airport grows, BAL will be able to realise greater economies of scale;
- **Government**: if passengers choose not to fly because they cannot fly from Bristol Airport (i.e. they would not switch to another airport), there is a cost to Government in terms of lost Air Passenger Duty revenue.

5.4.9 There is the potential for the Proposed Development to generate adverse socio-economic impacts, although given the relatively small scale of the construction project, phased duration of activity and

the mitigation proposed by BAL, it is not expected that such impacts will be significant. Impacts on health and well-being are considered further in **Section 5.13** of this Planning Statement.

5.4.10 Overall, the Economic Impact Assessment estimates that the net present value (NPV)[52] associated with raising the airport's capacity from 10 mppa to 12 mppa is around £1.6 billion over the next 60 years.

Regeneration and Social Impacts

5.4.11 Bristol Airport is in close proximity to two of the South West's most deprived areas, Weston-Super-Mare and South Bristol, which are amongst the 10% most deprived areas in the UK. These areas are significant providers of labour for the airport; Weston-super-Mare is estimated to account for around 13% of current on-site employment and South Bristol around 11%. Based on the expected increase in direct jobs at the airport and current residency patterns, the Economic Impact Assessment anticipates that the Proposed Development will support around 100 additional jobs in Weston-super-Mare and 90 additional jobs in South Bristol, helping to help improve levels of deprivation in these areas.

5.4.12 It should be noted that BAL works closely with a range of partners across the West of England to highlight the employment opportunities that the airport offers, including regular recruitment events and extensive work with local schools and colleges. BAL subsidises employee travel to and from the airport on a number of public transport services and facilitates a car share scheme for employees. BAL is also currently actively exploring options to introduce a number of new apprenticeships in engineering, ground transportation and IT. Through commitments contained in the proposed Section 106 Agreement Heads of Terms, such as the preparation and implementation of a Skills and Employment Plan (where this is appropriate) and surface access improvements, BAL is seeking to maximise the opportunities associated with the growth of the airport for local communities.

5.4.13 The Economic Impact Assessment identifies that increased activity at Bristol Airport will provide more opportunities for local businesses through the supply chain, improved connectivity and increased consumer expenditure. In this regard, BAL is holding its first Meet the Buyer event in January 2019, which is an example of the ways that BAL can actively increase the amount of local businesses benefitting from the airport's supply chain.

Tourism

5.4.14 Bristol Airport plays an important role in the tourism sector of the South West and West of England by providing easy access to overseas markets, notably Germany, Spain, the Irish Republic, Italy and France. The expansion of the route network in recent years has been a particularly strong driver of growth in the tourism sector.

5.4.15 The expansion of Bristol Airport will bring more visitors to the West of England, including North Somerset, who will purchase goods and services in the area, ultimately making local businesses stronger and improving the range of services on offer to the local population. The Economic Impact Assessment estimates that the inbound tourism impact of the airport for the South West and South Wales is £260m GVA (supporting 4,050 FTEs) and forecasts that this will increase to £380m GVA (5,400 FTEs) by 2026.

5.4.16 The Economic Impact Assessment has considered the potential negative impacts of increased outbound travel from Bristol Airport in terms of the extent to which it removes expenditure from

[52] NPV is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is used in capital budgeting and investment planning to analyse the profitability of a projected investment or project.

the local economy. The assessment concludes that, primarily due to the extent of substitutability of UK airports for outbound travel, any such adverse impacts are very unlikely to be significant.

Summary

5.4.17 The NPPF establishes the Government's commitment to securing economic growth stating at paragraph 80 that "*Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. 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. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential*". The growth of Bristol Airport to 12 mppa will provide significant economic and regeneration benefits to the local economy, West of England sub-region and the wider South West region. In consequence, the Proposed Development is in accordance with national planning policy as well as the objectives of national aviation and emerging Development Plan policy.

5.5 Traffic and Transport

5.5.1 The NPPF and Development Plan promote sustainable transport modes and seek to avoid adverse impacts on the highways network. Core Strategy Policy CS10 sets out that proposals which encourage an improved and integrated transport network and allow for a wide choice of modes of transport will be supported. Policy DM24 of the Sites and Policies Plan Part 1, meanwhile, states that proposals will be permitted provided they do not prejudice highway safety and that they will only be refused if they would result in severe cumulative impacts on traffic congestion, are not accessible by non-car modes or cannot readily be integrated with public transport. With specific regard to Bristol Airport, Policies CS23 and DM50 require that development proposals make appropriate provision for surface access.

5.5.2 The impact of the Proposed Development on the transport network was an important issue raised during the pre-application consultation; the surface access solution proposed by BAL to facilitate the growth of Bristol Airport to 12 mppa positively responds to this through a combination of highways improvements and significant investment in public transport to achieve an ambitious modal share target. The planning application is accompanied by a suite of supporting transport documents including a Transport Assessment, Draft Workplace Travel Plan, Parking Demand Study and Parking Strategy, as well as proposed Section 106 Agreement commitments, that underpin BAL's proposals for transport and which have been prepared taking into account the feedback received from stakeholders and the public as well as the planning policy requirements outlined above.

Highways

5.5.3 Primary access to Bristol Airport is provided from two roundabouts on the A38. The A38 borders Bristol Airport to the east and provides a connection to Bristol city centre and access to the M5 (approximately 11km west of Bristol Airport). As highlighted in **Section 2.4**, through its existing ASAS, BAL has invested significantly to improve transport links to Bristol Airport. This has included major highways investment (including a contribution of over £4 million towards the South Bristol Link which opened in January 2017 and the AVTM MetroBus route which opened in September 2018) and improvements to the local road network.

5.5.4 The Transport Assessment provides a detailed analysis of the impacts of the Proposed Development on the highway network. Using 2017 as the baseline year for passenger throughput, drawing on the most recent up to date data (including CAA passenger survey information) and applying growth rates to recorded traffic levels, the following scenarios have been assessed:

- 2026 reference case (2026 baseline plus a passenger throughput of 10 mppa – i.e. without the Proposed Development); and
- 2026 test case (2026 baseline plus a passenger throughput of 12 mppa – i.e. with the Proposed Development).

5.5.5 Changes in traffic flows experienced on the highway network as a result of the Proposed Development are expected to be relatively modest, particularly during the network peaks. The Transport Assessment forecasts that there will be an increase of 5,575 daily vehicle movements in the peak month of August compared to the 2026 reference case; this is less than a 20% increase in the number of total vehicles.

5.5.6 Taking into account the outputs from an extensive programme of traffic surveys, the Transport Assessment indicates that the areas likely to experience the highest increase in traffic flows are located just to the north and east of Bristol Airport, along the A38 and West Lane, with impacts likely to be most pronounced during the airport peak (between the hours of 13:00 and 14:00[53]). Based on this analysis and following agreement with NSC, the junctions listed below were subject to more detailed assessment:

- Junction 1 A38 / Bristol Airport Northern Roundabout;
- Junction 2 A38 / Bristol Airport Southern Roundabout;
- Junction 3 Downside Road / Bristol Airport Service Access;
- Junction 4a A38 / Downside Road;
- Junction 4b A38 / West Lane;
- Junction 5 A38 / Barrow Lane;
- Junction 6 A38 / Barrow Street; and
- Junction 7 A38 / A4174 South Bristol Link (SBL).

5.5.7 The detailed junction capacity assessment indicates that, without appropriate mitigation and as a worst case, Junctions 1, 4a and 4b above would operate over capacity as a result of increased traffic associated with an additional 2 mppa. To address this, the Proposed Development includes significant improvements to the A38 junctions with Downside Road and West Lane (which is to be secured through a proposed Section 106 Agreement obligation - see **Appendix D**) as well an upgrade to the northern roundabout to include a dedicated left turn slip lane onto the A38 and an internal two lane gyratory. Taking these proposed enhancements into account, the Transport Assessment concludes that all of the assessed junctions will operate below capacity at 12 mppa.

5.5.8 Reflecting the findings of the Transport Assessment, the Traffic and Transport chapter of the ES (Chapter 6) confirms that there will be no significant effects in relation to severance, pedestrian and cyclist delay, amenity, fear and intimidation and accidents and road safety as a result of the Proposed Development. It does, however, highlight that there may be significant beneficial effects associated with the proposed improvements to the A38 / Bristol Airport Northern Roundabout, A38

[53] The airport peak relates to when vehicles are arriving at and leaving the airport site.

/ Downside Road and A38 / West Lane junctions in terms of decreased driver delay times and the provision of new crossing facilities.

5.5.9 To mitigate further the impacts of the Proposed Development and deliver additional enhancements where possible, the proposed Section 106 Agreement Heads of Terms contains a range of transport commitments, including a fund to support the development of major strategic transport schemes within the region and a fund to support the implementation of local highway improvements.

Public Transport

5.5.10 Bus services from Bristol Airport provide a range of connections to Bristol, Weston-super-Mare and Bath, and also to surrounding local towns and villages (one to 10 journeys per day). Coach services are also available to Cardiff, Plymouth, London and Penzance (hourly to daily). There is no rail station located at Bristol Airport; however, there are nine stations located within 25km, most of which can be reached by bus services available from Bristol Airport such as Bristol Temple Meads and Bath Spa.

5.5.11 Through its existing ASAS, BAL has contributed towards significant public transport enhancements which have supported an increase in public transport patronage to 12.5%. To further encourage a shift towards more sustainable modes of travel and to capitalise upon the opportunities presented by the Proposed Development, a new and ambitious ASAS will be developed working in partnership with the Airport Transport Forum. The ASAS will set out:

- Proposed improvements to public transport services;
- Proposed improvements to other sustainable transport modes; and
- Improvements to local highway infrastructure and on-site car parking provision.

5.5.12 Building upon the significant progress made by BAL towards achieving the consented 10 mppa public transport strategy, the ASAS will deliver and maintain a passenger modal share target of 15%. As set out in **Section 5.3**, this target has been carefully calculated taking into account the current modal share of 12.5% and the limited period of time for investment in public transport before 12 mppa is reached. It is considered to be realistic and achievable given BAL's ability to influence passenger travel choice and existing, limited public transport choices for passengers across the West of England sub-region and wider South West.

5.5.13 Informed by the Transport Assessment and pre-application consultations, the key obligations that will form the ASAS and are included in the proposed Section 106 Heads of Terms (**Appendix D**) comprise:

- A commitment to maintain express bus connections;
- The promotion and development of longer distance bus and coach services;
- A commitment to further integrate the A1 Bristol Flyer service with Metrobus and a contribution towards upgrading the A370 Weston-super-Mare to Bristol bus corridor to Metrobus standards;
- A contribution towards starting a new Metrobus Complimentary Service; and
- Extension of the current public transport fund to support new routes and infrastructure enhancements.

5.5.14 Public transport opportunities are focused on the areas of greatest travel demand and seek to better utilise existing provision as well as make targeted improvements where necessary. The proposed public transport fund will cover a broad range of measures incorporating service delivery

and infrastructure, which will be supported by travel plan measures to make sustainable travel options a real choice for passengers and employees.

Workplace Travel Plan

5.5.15 Both the NPPF and the Development Plan require that travel plans are prepared for all developments which generate significant amounts of movement. Travel plans provide a key tool to facilitate and exploit opportunities for the use of sustainable modes for movement of goods and people.

5.5.16 BAL first launched its Workplace Travel Plan in 2006 and this has been subsequently reviewed and revised on a regular basis. To take account of the opportunities presented by the Proposed Development, a new Draft Workplace Travel Plan has been produced and is submitted as part of the planning application. This refined Draft Workplace Travel Plan sets out a wide range of measures to encourage travel by walking, cycling, public transport and car sharing, including (inter alia):

- Appointment of a dedicated Travel Plan Co-coordinator;
- Creation of user groups to inform, advise and manage the Workplace Travel Plan;
- Re-launch and active promotion of an on-site car share scheme;
- Enhancement of bus services to and from the airport and promotion of these routes and services;
- Further promotion of discounted staff fares available on certain public transport services;
- Measures and promotion of walking and cycling;
- Further provision of cycle parking and storage facilities;
- Purchase of zero emission pool vehicles; and
- Provision of EV charging points.

5.5.17 Through the delivery of the Draft Workplace Travel Plan, BAL is proposing an employee modal share target of 25% for non-single occupancy car travel by staff. Alongside the promotion of sustainable travel, this commitment will also help to ensure that new jobs created at the airport are accessible to all, in particular to those within the deprived areas of Weston-super-Mare and South Bristol.

Car Parking

5.5.18 As has already been demonstrated in **Section 5.3**, BAL is proposing a parking solution to fulfil the capacity requirements associated with an additional 2 mppa. Importantly, by bringing forward the proposed extension to the Silver Zone car park (Phase 2) and through the year-round use of the current seasonal car park (Phase 1), this solution fully reflects the nature of the demand for car parking and will help reduce the market share and adverse impacts of unauthorised offsite providers.

5.5.19 During pre-application consultation on BAL's proposals for 12 mppa, a key issue raised by stakeholders and the public concerned the impact of taxis waiting offsite. In response, BAL will develop proposals for an authorised taxi waiting area combined with an additional drop-off and pick-up parking facility at or near the airport; it is proposed that this will be secured through a Section 106 Agreement commitment (see **Appendix D**). Additionally, through the Section 106 Agreement, BAL is proposing to make contributions towards parking enforcement and the

implementation of on-street parking controls in the local area to help reduce further the impact of taxis, as well as other vehicles, waiting offsite.

Summary

5.5.20 The Transport Assessment sets out that the proposed transport package offers a robust and deliverable set of enhancements that will improve connectivity by all surface access modes to Bristol Airport whilst delivering on the commitment to promote sustainable means of travel. Overall, the Transport Assessment shows that the site can be safely accessed by all modes of transport and that an additional 2 mppa will not lead to an unacceptable impact on the highway network or the character of the surrounding area. Where impacts have been identified, proposals have been put forward to mitigate these including through financial contributions as part of a Section 106 Agreement which includes a significant improvement to the A38.

5.5.21 Through the Proposed Development, BAL is seeking to develop further public transport connections to the airport and improve passenger experience. It has set a challenging but achievable target for public transport use and associated measures will be brought forward via the ASAS and the Section 106 Agreement. A new Workplace Travel Plan is also proposed in order to further encourage the use of alternative modes of transport to the private car.

5.5.22 The Proposed Development provides adequate car parking to accommodate 12 mppa, which responds to the increased demand for low-cost parking and will help to lessen the opportunity for, and impact of, unauthorised offsite car parks. In direct response to concerns expressed by stakeholders and the public, through the Section 106 Agreement BAL is also proposing to implement measures to tackle amenity impacts associated with taxis waiting offsite.

5.5.23 Overall, BAL's proposals for surface access are considered to be fully compliant with the NPPF and Development Plan policies concerning transport and surface access.

5.6 Noise

5.6.1 The Noise Policy Statement for England (NPSE) provides the framework for noise management decisions to be made that ensure noise levels do not place an unacceptable burden on society. With specific regard to aviation, the APF establishes that the Government's overall objective on noise is to "*Limit and where possible reduce the number of people in the UK significantly affected by aircraft noise*". Policy DM50 of the Sites and Policies Plan Part 1, meanwhile, sets out that, in respect of development in the Green Belt inset at Bristol Airport, proposals for development will be permitted provided that (inter alia) there is no unacceptable noise impact.

5.6.2 Noise is an important and sometimes intrusive issue for people living next to airports and was identified as a key area of concern during the pre-application consultation. Respondents commented that noise associated with increased aircraft movements in particular will affect the quality of life of residents in local communities and consultees made a number of suggestions to mitigate this impact including, for example, monitoring, requirements for airlines to use quieter aircraft and the need for an enhanced noise compensation package.

5.6.3 BAL fully recognises the potential for noise associated with the operation of Bristol Airport to affect local communities and takes steps to mitigate and reduce impacts on people living within BALs annual published air noise contours. In this regard, Bristol Airport's operations are already subject to planning controls and BAL's own sustainability and noise management policies and abatement procedures. As described in **Section 2.4**, these measures include, for example, encouraging airlines to adopt CDAs, improve noise and track keeping by having dedicated Noise Preferential Routings for departures, and continuous monitoring at three permanent locations surrounding the airport

and mobile noise monitoring available to residents upon request. This is alongside current Section 106 Agreement obligations relating to the management and control of air and ground noise and adherence to noise conditions under the extant 10 mppa consent. These existing measures are described in detail in BAL's Noise Action Plan[54].

5.6.4 BAL is proposing to carry forward the majority of the existing noise conditions imposed under the extant 10 mppa consent and which form the basis for the draft conditions contained at **Appendix D** to this Planning Statement, as follows:

- The current 57dB $LA_{eq,16h}$ (07:00 to 23:00) noise contour limit will be maintained at 12.42 km^2;
- The area enclosed by the 63dB, 60db and 57 dB $L_{eq\ 16hr}$ (07:00 to 23:00) noise contour will continue to be reported to NSC annually with residential properties located within the area of this contour being eligible for a grant under a noise insulation grant scheme, which will be enhanced;
- The total number of take-offs and landings between the hours of 06:00 and 07:00 and between 23:00 and 23:30 (the 'shoulder periods') will continue to be capped at 10,500 in any calendar year.

5.6.5 The current QC system (described in **Section 2.2**) will be maintained (including current night time QC budgets), the only change being the inclusion of the latest QC designation of aircraft. Additionally, the proposed Section 106 Agreement Heads of Terms (**Appendix D**) contains a number of suggested commitments relating to noise, including:

- The implementation of a noise control scheme that will require BAL to impose penalties for the breach of noise limits and to provide incentives for the use of quieter aircraft;
- Encouraging operators of aircraft to adopt operational procedures and practices aimed at achieving ongoing improvements in the levels of aircraft noise and minimising the impact of noise;
- Regular review, implementation and monitoring of a Ground Noise Management Strategy.

5.6.6 The ES includes an assessment of the noise and vibration impacts associated with the construction and operation of the Proposed Development. This assessment has considered the following sources of noise:

- Flights into and out of Bristol Airport (air noise);
- Aircraft activities at Bristol Airport such as taxiing (ground noise);
- Road traffic on the road network in the vicinity of Bristol Airport (road traffic noise); and
- Construction of the Proposed Development (construction noise and vibration).

5.6.7 Impacts are assessed for dwellings and non-residential receptors. The assessment has involved modelling of the 2017 baseline, supported by measurements and modelling of the future situation both at 10 mppa (i.e. without the Proposed Development) and 12 mppa (with the Proposed Development) to 2026. The results of the modelling have been compared to criteria which take into account national policy and published guidance to determine potential impacts.

5.6.8 Air noise is associated with the flight phase of an aircraft, namely from start of roll (when the aircraft produces maximum thrust for take-off), the onward flight, and the landing at the airport

[54] BAL recently published for consultation an updated draft Noise Action Plan (2019 – 2024). This is currently awaiting for approval from Defra.

until the point of exiting the runway. Commensurate with the increase in passengers, at 12 mppa (2026) there will be a total of 97,393 annual aircraft movements, an increase of annual 10,420 movements compared to forecast movements at 10 mppa (in both 2021 and 2026).

5.6.9 The thresholds for assessing health effects and quality of life are important, particularly when considering and comparing different scenarios as well as establishing the need for, and extent of, noise mitigation. The NPSE introduces the concept of the NOEL (No Observed Adverse Effect Level), LOAEL (Lowest Observed Adverse Effect Level), and SOAEL (Significant Observed Adverse Effect Level). The PPG also introduces the concept of the UAEL (Unacceptable Adverse Effect Level). LOAEL and SOAEL are the most relevant to this application; households exposed to levels above 63dB $L_{eq\ 16hr}$ (day) and 54dB $L_{eq\ 8hr}$ (night) are within SOAEL; while for LOAEL the thresholds, in line with Government policy, are 51dB $L_{eq\ 16hr}$ (daytime) and 45dB $L_{eq\ 8hr}$ (night).

5.6.10 The noise assessment highlights that, while aircraft movements will increase under the 10 mppa scenario and further as a result of the Proposed Development, increased noise levels will be largely offset by the predicted modernisation of the aircraft fleet (the assumptions underpinning the future fleet are detailed in the Forecast Validation report contained at **Appendix F**). In summary, the air noise effects are expected to increase by a low or very low amount when compared to the 10 mppa (2026) scenario. Around 10 dwellings are exposed to the SOAEL for daytime air noise under both scenarios; however, the change in noise for these receptors under 12 mppa would be negligible at around 1 dB; a change in noise level of between 2 and 3 dB is classified as being 'barely perceptible' and 3 to 6 dB 'perceptible' (for road traffic, a change of 2 to 3 dB is classified as a low level effect and 3 to 5 dB a medium level effect).

5.6.11 As highlighted in **Section 2.5**, whilst the majority of flights will continue to occur in the day time (06:00 to 23:30), the use of available night movements in summer seasons is expected to grow. In response, through the application for the Proposed Development, permission is sought for an annual cap of 4,000-night flights, although BAL proposes to retain the night movement QC budgets therefore incentivising quieter aircraft against a backdrop of an annual night movement limit of 4,000. Taking this operational change into account, the air noise assessment identifies approximately 150 dwellings as being exposed to the night noise SOAEL of 55 dB $L_{Aeq,8h}$ or more in 2017; this is predicted to increase to around 300 dwellings under the 10 mppa scenario (2021) and circa 350 at 12 mppa. However, the change in noise for these receptors under 12 mppa would be negligible at around 1 dB.

5.6.12 For dwellings that are exposed to significant levels of air noise, BAL offers mitigation through its noise insulation grant scheme. As part of the Proposed Development, this scheme will be enhanced; the noise thresholds for insulation will remain as current i.e. daytime 57 dB, 60 dB and 63 dB $L_{Aeq,16h}$ noise contours, however eligible properties can benefit as part of this enhanced scheme for 100% grant contributions without the need for match funding. In addition, the value of the grants will increase in value to generate a greater uptake of the scheme.

5.6.13 In summary, the noise impacts likely to arise as a result of moving from a 10 mppa scenario to a 12 mppa scenario with the Proposed Development are predicted to be low or very low. The air noise assessment concludes that, considering the individual dwellings, the increases in noise levels due to the Proposed Development are negligible and therefore the effect is not considered to be significant

Ground Noise

5.6.14 The ground noise assessment has been undertaken for the area around Bristol Airport where aircraft ground operations (for example, engine running on stands and at hold positions, taxiing, manoeuvring and the operation of APUs while on stands) associated with additional aircraft movements may give rise to the greatest potential noise effects. The assessment identifies that

new buildings associated with the Proposed Development (which include a 5m high faceted acoustic barrier along the far eastern apron) will provide enhanced levels of noise screening serving to mitigate, and in some cases reduce, ground noise levels. In this regard, the assessment identifies that a total of 30 dwellings will experience a medium decrease in noise level (defined as being between 3 to 6 dB) as a result of moving from the 10 mppa to the 12 mppa scenario whilst four dwellings will experience a high decrease in noise level (6 to 9 dB). The change is assessed as being a significant beneficial effect.

5.6.15 One dwelling is exposed to SOAL under the 10 mppa scenario, which increases to three under the 12 mppa scenario. These dwellings are located on Cooks Bridle Path, to the north west of the western stands at Bristol Airport. However, these dwellings will experience only a negligible increase in noise levels of 1 to 2dB which is assessed as being a low effect and barely perceptible; and in practice, these three dwellings are all eligible under Bristol Airport's current sound insulation scheme (which is based on the air noise effect).

5.6.16 BAL is seeking to align the operational restrictions on stands 38 and 39 with those on stands 33-37 for consistency. This will allow for the use of aircraft engines for taxiing (as opposed to towing) between the hours of 06:00 and 23:00, enabling the full and efficient use of these stands and supporting a passenger throughput of 12 mppa. The findings of the noise assessment indicate that this operational change will not result in significant effects.

Road Traffic Noise

5.6.17 As described in **Section 5.5**, an additional 2 mppa will result in an increase in vehicle movements which may affect noise sensitive receptors along/adjacent to transport corridors. The noise and vibration assessment contained in the ES identifies a total of 20 dwellings as being significantly affected by road traffic noise in the vicinity of Bristol Airport in 2017; this is predicted to increase to around 30 in the future, with either 10 or 12 mppa. However, the assessment concludes that the increases in noise levels due to the Proposed Development will be negligible and therefore the effect is not considered significant in EIA terms.

Construction Noise

5.6.18 The construction noise assessment has found that no significant noise effects are expected to arise from night-time construction activity. There is potential for significant daytime noise effects for receptors adjacent to the A38 as a result of the proposed highway improvement works and for receptors at the east end of Downside Road from the construction works on the gyratory road. However, the assessment identifies that mitigation, including temporary noise barriers, as well as the implementation of measures contained in the Outline CEMP would be predicted to mitigate noise levels below the thresholds for a potentially significant effect.

5.6.19 No significant vibration effects are expected to arise from construction activity.

Summary

5.6.20 Overall, the ES has identified that the effects of the Proposed Development on air, ground, traffic and construction noise and vibration will not be significant and BAL will continue to implement current noise mitigation measures whilst also providing an enhanced noise insulation grant scheme. Where changes to the current operation of the airport are proposed, the findings of the noise assessment indicate that these will not result in significant effects with increases in noise generally being negligible and barely perceptible; in some cases noise effects will reduce. It is therefore considered that the Proposed Development accords with the NPSE, NPPF and Development Plan.

5.7 Air Quality

5.7.1 Air quality refers to the concentrations of pollutants in the air that people breathe. Poor air quality is associated with a number of health problems, especially respiratory conditions; it can also affect vegetation and sensitive ecosystems. The main pollutants of concern for the Proposed Development are oxides of nitrogen (NO_x), nitrogen dioxide (NO_2) and fine particulate matter (PM_{10} and $PM_{2.5}$.

5.7.2 Legally binding limits on key pollutants are established in European and UK law for the protection of human health and ecosystems; the planning policy context pertaining to air quality, meanwhile, is set out in Core Strategy Policy CS3, Sites and Policies Plan Part 1 Policy DM50 and paragraph 181 of the NPPF, as well as the PPG. Together, this legislative and policy framework seeks to mitigate air pollution arising from development and sustain and contribute towards compliance with relevant limit values or national objectives for pollutants.

5.7.3 Background air quality in the vicinity of Bristol Airport is considered to be good. Sources of pollution that influence air quality around the airport site include the ambient background (pollutants transported from elsewhere, including the wider UK and mainland Europe), road traffic (both airport-related and non-airport) and domestic commercial and industrial heating, as well as the airport itself. Collated local monitoring data shows that monitored annual mean NO_2 concentrations upwind of the application site and away from roads are typical of rural locations in England, at around 9–12 micrograms per cubic metre (µg m^{-3}). At kerbside locations on the A38, concentrations are circa 30 µg m^{-3} and immediately downwind of Bristol Airport they are generally in the range of 10-30 µg m^{-3} depending on exact location. In the period 2014–2017, the number of hours where the hourly NO_2 concentration at the airport was over 200 µg µg m^{-3} was zero, compared with a legal limit of 18 hours over 200 µg m^{-3} per year. One monitoring station in proximity to the application site measures particulate matter PM_{10}. Over the period 2012–2017, monitored annual mean PM_{10} concentrations at the airport continuous monitor, downwind of Bristol Airport, were 18–21 µg m^{-3}, well below the legal limit of 40 µg m^{-3}. The number of days per year where the daily average PM_{10} concentration was over 50 µg m^{-3} was between zero and four, well within the legal limit of 35 days over 50 µg m^{-3}.

5.7.4 Measures are embedded within the scheme to reduce the potential for, and magnitude of, adverse air quality effects arising from the construction and operational phases of the Proposed Development and to ensure that air quality in the vicinity of the airport is maintained. These measures include:

- Adoption of a dust management plan during the construction phase;
- The airfield layout has been designed to minimise times for taxiing and holding; and
- Improvements to the A38 and the internal road layout.

5.7.5 The ES concludes that the Proposed Development will result in increases in NO_2 concentrations downwind of the airfield and close to roads that carry airport-related traffic. Moderate impacts are predicted at seven properties close to the A38, north of the airport near to Downside Road with a further 50 properties along the A38 and at the east end of Downside Road expected to receive slight impacts. However, all concentrations will remain comfortably within all legal limits and any breaches of these limits are predicted to be very unlikely. Further, all other properties are not expected to see any noticeable impact or change in air quality.

5.7.6 To further reduce the air quality impacts of the Proposed Development, the proposed Planning Conditions and the Section 106 Heads of Terms set out in **Appendix D** to this Planning Statement includes additional measures beyond those embedded as part of the scheme design. These measures include (inter alia) the routeing of HGVs during the construction period and timing of

movements in order to reduce congestion and queuing, electric vehicle charging, the production of an Air Quality and Emissions Plan with related, ongoing air quality monitoring and an ambitious public transport modal share target of 15% for passengers. In accordance with normal operational practice, aircraft arrivals and departures are planned to avoid, where possible, over-long idling, taxiing and hold times.

5.7.7 Overall, in respect of air quality, the Proposed Development will not have any unacceptable impact on health, the natural environment or general amenity and is therefore compliant with the Development Plan and NPPF.

5.8 Land Quality and Use

5.8.1 The NPPF and Development Plan policy seek to ensure that development does not result in the contamination of land and that appropriate remediation is undertaken. The NPPF also stipulates that planning policies and decisions should promote the effective use of land and recognise the benefits of the best and most versatile (BMV) agricultural land. Annex 2 of the NPPF defines BMV agricultural land as that which is in Grades 1, 2 and 3a of the Agricultural Land Classification (ALC).

Land Quality

5.8.2 A Phase 1 Land Quality Assessment has been undertaken as part of the ES. This has identified a number of historical and current site uses at the application site that could potentially be a source of contamination including Made Ground associated with previous development and infilling or level-raising, historical use of the application site as an RAF base, bulk fuel storage, and other historical land uses. The construction phase of the Proposed Development will involve the disturbance of soils that may contain concentrations of these various contaminants. The spillage of oils and other chemicals can also occur during both construction and operation.

5.8.3 The release of contaminants during the construction and operational phases of the Proposed Development could affect human health, soils, properties, buried services and the Principal Aquifer. In order to mitigate these risks, environmental measures and construction good practices to control exposure and prevent the spreading of contamination have been incorporated into the Outline CEMP. In addition, a site investigation will be undertaken prior to construction works commencing; if there is evidence of contamination then a programme of remediation will be agreed with NSC and other relevant stakeholders. These investigations will also inform the final design of the foundations for new infrastructure and buildings/extensions to ensure that any risks associated with mobilisation or leaching of contamination are considered.

5.8.4 Taking into account the measures identified above, the ES concludes that the risk of contamination is low.

Land Use

5.8.5 The Proposed Development will maximise development within the current airport site and minimise additional land take. In this context, the majority of associated development is located on previously developed land such that impacts on land use within and/or adjacent to the site will be minor. This is consistent with national aviation policy on making the best use of existing airport capacity, and the NPPF, which promotes the effective use of land.

5.8.6 One component of the Proposed Development, the proposed Silver Zone car park extension (Phase 2), will be located on undeveloped, greenfield land that is currently in agricultural use. Provisional ALC mapping indicates that the proposed car park site comprises of Grade 3 ('good to moderate') agricultural land quality; however, provisional ALC maps do not distinguish between Grade 3a

('good') and Grade 3b ('moderate') quality agricultural land and an ALC assessment has therefore been completed as part of the ES. The ALC assessment has identified that the car parking site includes 3.2 ha of Grade 3a (good) and 2.2 ha of Grade 3b (moderate) quality agricultural land.

5.8.7 The need for additional low-cost parking on the site has already been clearly established in **Section 5.3** which, it is submitted, justifies the loss of BMV land. The following additional considerations are also pertinent: lack of alternative sites; the nature of the site's current use; and the significance of the BMV land to be lost.

Alternative sites

5.8.8 The NPPF establishes that, where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. Consistent with the requirements of the NPPF, BAL has considered alternative options to accommodate the low-cost car parking required to support a throughput of 12 mppa. Informed by the Parking Strategy, this has included the consideration of options for further development within the existing airport site as well as offsite locations including sites comprising of lower quality agricultural or brownfield land. As set out in **Section 5.3** the analysis of alternative options has concluded that there is a lack of suitable and available alternative sites capable of meeting the requirement for low-cost car parking associated with an additional 2 mppa.

5.8.9 Importantly, the delivery of low-cost parking should help to lessen the opportunity for, and impact of, unauthorised car parks. Many of these unauthorised car parks are also located on BMV agricultural land, reflecting the prevalence of Grade 3 agricultural land in the vicinity of the airport site.

Nature of the site's current use

5.8.10 The field within which the car park will be located includes a combination of Grade 3a (good) and Grade 3b (moderate) agricultural land; not all of the site is therefore BMV land. The site is currently used for grazing rather than for crop production and this use would be expected to continue in the absence of the site's development for car parking.

Significance of the development

5.8.11 The NPPF refers specifically to the 'significant development' of agricultural land in stipulating that areas of poorer quality land should be preferred to those of a higher quality. Significant development in this context is not defined in the NPPF; however, guidance produced by Natural England sets out that local planning authorities should only take account of 'smaller' losses of BMV land under 20 ha if this is significant to the determination of an application and that Natural England should only be consulted on proposals at or above this 20 ha threshold.

5.8.12 The area of BMV that would be lost as a result of the development of the Silver Zone car park (Phase 2) extension would be 3.2 ha; this is considerably below the 20 ha threshold set out in Natural England's guidance. Further, the area of Grade 3a land that would be lost equates to only 0.01% of all BMV land in North Somerset (28,812 ha)[55] and in consequence, the development of the site would not substantively undermine the supply of agricultural land locally. The loss of BMV land is, therefore, clearly not of the 'significant' scale of development referred to in the NPPF and against which the requirement to have regard to BMV agricultural land applies.

[55] Based on provisional ALC mapping published by Natural England and available via http://www.magic.gov.uk/. It should be noted that provisional ALC maps do not distinguish between Grade 3a and Grade 3b agricultural land.

Summary

5.8.13 The risk of contamination associated with the construction and operation of the Proposed Development affecting sensitive receptors is low and significant effects on land quality are not predicted. Consistent with national aviation policy and the NPPF, it has been demonstrated that the Proposed Development will make best use of the airport site and therefore the scheme represents an effective use of land.

5.8.14 The Proposed Development will result in the loss of BMV agricultural land. The policies of the NPPF do not preclude development on BMV land; it is a material consideration in development management decisions to be weighed in balance alongside the need to bring forward low-cost parking to accommodate demand associated with an additional 2 mppa. Given the relative small scale of land that will be lost as a result of the proposed Silver Zone car park (Phase 2) extension and its use for grazing rather than crop production, it is considered that the loss of BMV land will not be significant and that, when weighed against the need for low-cost car parking in this location and the wider benefits that will be delivered through airport expansion (as described elsewhere in this Planning Statement), the loss of BMV land is justified.

5.9 Landscape and Visual

5.9.1 Development Plan policy and the NPPF seek to conserve and enhance landscape. In particular, Core Strategy Policy CS5 and Policy DM10 of the Sites and Policies Plan require (inter-alia) that development proposals should not have an adverse impact on the designated landscape character of North Somerset Core Strategy, whilst Policy CS5 and Policy DM11 state that the Mendip Hills AONB should be protected by ensuring that development proposals conserve and enhance its natural beauty.

5.9.2 Through the design of the Proposed Development, BAL has sought to ensure that the scheme integrates well with the existing landscape character and built form and minimises its visual impact. In this context, the Proposed Development includes a range measures that are intended to conserve and enhance landscape character and visual amenity; in particular, the integrated/embedded landscape, visual and ecology mitigation masterplan, which forms part of the proposals, includes (inter alia):

- New tree planting to be undertaken to replace that lost and to reinforce existing high levels of tree cover along the relevant lengths of the boundary of Bristol Airport. The design of new planting has been located to deliver screening and softening of large-scale built form with particular regard to MSCP Phase 3 and is proposed close to the Downside Road entrance to the airport and alongside the boundary with Cook's Farm where it will reinforce the existing tall hedgerow providing increased longer-term screening for some visual receptors in Downside Road and Cook's Bridle Path;
- Parkland planting alongside the northern boundary close to the residential properties on the southern side of Downside Road. Although the primary purpose of this planting is habitat enhancement for horseshoe bats, it will establish to provide longer-term enhancement of the existing screening of the closest parts of the northern area surface car park and the proposed gyratory road;
- New planting on the northern side of the proposed extended terminal building and canopies in the style of the present ornamental and street tree planting. This planting will break up the mass of the extended terminal building in occasional close distance views that are available to visual receptors from elevated locations to the north on the Oatfield Ridge;

- Replacement hedgerow and tree planting alongside sections of the proposed gyratory road; and
- A perimeter bund around the western, southern and eastern boundary of the Silver Zone car park extension (Phase 2) to be designed and planted to replicate the design of the bund sited around the existing Silver Zone car park extension (Phase 1).

5.9.3 Additionally, the design of scheme components uses building materials, detailing and finish that respond in a positive way to the existing landscape context whilst high quality design principles have been adopted in respect of the most prominent of the buildings including the extensions to the terminal building, as described in the Design and Access Statement.

Landscape

5.9.4 There are no national (statutory) or local landscape designations that apply to the application site. Within the wider landscape, the Mendip Hills AONB is located 2.9km south of the boundary of Bristol Airport.

5.9.5 The Landscape and Visual Impact Assessment (LVIA) carried out as part of the ES has assessed the potential impact of the Proposed Development on the AONB including effects upon the 12 special qualities of the AONB that are set out in its current Management Plan[56]. This landscape assessment identifies that there will be potential impacts on three of the AONB's 12 special qualities including tranquillity, dark skies and outward views; however, the incremental changes that will arise from the Proposed Development will result in only negligible impacts in this regard. This is because Bristol Airport is, and will continue to be, rarely visible; only a small proportion of flight paths are and will continue to be routed over the AONB; and only a small proportion of traffic associated with the operation of the airport passes through the AONB. When these changes are aggregated, the assessment concludes that the resultant magnitude of change for the AONB is negligible.

5.9.6 The landscape assessment has also considered the potential effects of the Proposed Development on the landscape character of the 12 LCAs falling within the assessment study area. The LVIA concludes that for 11 of the 12 landscape receptors, the magnitude of change associated with the Proposed Development is negligible. The exception is the host Broadfield Down Settled Limestone Plateau LCA where the Proposed Development is predicted to result in an incremental increase in the already prominent role of the operation of Bristol Airport. This is due to the loss of a single pasture field to accommodate the Silver Zone car park extension (Phase 2), plus a small number of trees in the northern area of the airport and at the Downside Road/A38 junction. However, many of the host LCA's key characteristics reflect the long-standing presence of the airport and the Proposed Development will not introduce new landscape characteristics or modify existing landscape characteristics, nor will it spatially extend the proportion of the LCA indirectly affected by the operation of the airport. As a result, the landscape assessment concludes that effects on this LCA will be minor and not significant.

5.9.7 Overall, the landscape assessment concludes that there will be no significant landscape effects as a result of the Proposed Development.

Visual

5.9.8 The visual assessment element of the LVIA is based upon the changes in the views that will be experienced by 47 groups of people as a result of the Proposed Development. These receptors

[56] Landscapes for life (2013) *Mendip Hills area of Outstanding Natural Beauty (AONB) Management Plan 2014-19*. Available from: http://www.mendiphillsaonb.org.uk/wp-content/uploads/2012/12/Mendip-Hills-AONB-Management-Plan-Nov-2013.pdf [Accessed April 2018].

include: residents in nine settlements; 11 individual properties or small groups of properties; and recreational receptors.

5.9.9 The assessment concludes that 38 groups of visual receptors will experience either negligible change as a result of the Proposed Development or no change at all (i.e. there will be no views potentially available of any proposed built component or ground level aircraft). Nine groups of visual receptors, meanwhile, are assessed as experiencing a low magnitude of change; these receptors are all located close to the northern area of Bristol Airport and do not consistently benefit from existing, effective screening by vegetation cover and/or perimeter bunding. For the following eight groups of visual receptors, effects are assessed as moderate:

- Residential visual receptors at properties in Downside, east of Cook's Bridle Path;
- Residential visual receptors at Cook's Farm;
- Residential visual receptors at two properties on Long Lane;
- Residential visual receptors at four properties alongside Cook's Bridle Path;
- Residential visual receptors at Downside Farm;
- Recreational visual receptors using Felton Common Open Access Area;
- Recreational visual receptors using the north-west of Potters Hill public rights of way (PRoW) network; and
- Recreational visual receptors using the Lulsgate Bottom PRoW.

5.9.10 However, the assessment concludes that these groups will not experience significant visual effects as the changes in their views will always be in the same angle of view and visual context and the scale, height, form and appearance of all the proposed built components will reflect the existing built development. Screening provided by a combination of existing trees, hedgerows and buildings that are present both within and outside the Bristol Airport site serve to minimise potential visual impacts. The local landform and extensive planting along the northern boundary will be particularly important in limiting peoples' views to the Proposed Development; people who will have partial views of some of the larger components, such as the east walkway, west terminal extension (Phase 2) and canopies, will see these elements in the context of the airport's more extensive existing components which have the same scale, height and architectural style.

5.9.11 The exception is a single receptor, Melody Cottage, which is assessed as sustaining a potentially significant visual effect. This receptor, located to the north west of the airport site along Downside Road, is predicted to experience significant effects during the first year of the Proposed Development's operation, due to the following factors:

- The 100m separation distance between the cottage and the western end of Phase 3 of the MSCP;
- The position of the cottage's southern frontage immediately against Downside Road with no front garden and boundary planting;
- The orientation of the cottage so that residents have direct views towards MSCP Phase 3 from five windows in the property's southern frontage; and
- The current baseline with moderate amounts of screening available on the closest section of Bristol Airport's northern boundary, including some relatively recent planting on the western end of the northern bund which is not yet fulfilling the screening role that it will fulfil when it becomes fully established.

5.9.12 However, the visual assessment highlights that the full establishment of the current boundary planting supplemented by additional woodland and scrub screen planting as specified in the landscape, visual and ecology mitigation masterplan will result in the visual effects sustained by residents at Melody Cottage lessening over time such that, by year 15 of the Proposed Development's operation, impacts will not be significant. It is also important to contextualise the visual effects assessed for residents at Melody Cottage and in particular that effects will only apply to views from the two upper floor windows in the property's southern frontage. Further, this single temporary adverse significant visual effect, in the context of the overall number of residential visual receptors present in the study area adopted for the visual assessment, is strongly indicative that the Proposed Development is acceptable in visual terms.

Summary

5.9.13 The Proposed Development will mainly be contained within the existing airport boundary. There will be an intensification of use on the northern side of the airport and it is proposed that this will be mitigated where possible. Where development is proposed on undeveloped areas, a number of mitigation and enhancement measures are proposed to ensure that any landscape or visual impact of the development is minimised.

5.9.14 Overall, the LVIA concludes that the Proposed Development will not result in any significant adverse landscape effects whilst visual impacts are likely to be extremely limited and will lessen as existing and proposed planting around the site boundary becomes established. It is therefore considered that the Proposed Development is acceptable in landscape and visual terms and that it accords with Development Plan policy and the NPPF.

5.10 Heritage (including archaeology)

5.10.1 The Development Plan, including Core Strategy Policy CS5 and Policies DM4 to DM7 of the Sites and Policies Plan Part 1, and the NPPF seek to conserve and enhance the historic environment, having regard to the significance of heritage assets including non-designated features.

5.10.2 There are no designated features of cultural heritage within the boundary of the application site. The nearest historic designated asset is the Grade II listed building Windmill House which is within 500m of the application site to the east. There are seven scheduled monuments within 500m of the application site, the nearest being Long barrow 350m south-west of Cornerpool Farm, an early Neolithic chambered long barrow located approximately 260m south from the application site.

5.10.3 The current airport is on the site of RAF Lulsgate Bottom which was established in 1940 as a relief landing ground and was then developed as a satellite airfield for fighter squadrons based at RAF Colerne. The base was subsequently abandoned in 1946. The North Somerset Historic Environment Record (NSHER) includes an inventory of identified features from the World War II airfield. Little of the infrastructure of the original airfield survives; however, the NSHER identifies several records of former structures of historical interest within and to the south of the airfield, including aircraft double-fighter pens which contain reinforced store rooms and/or air raid shelters.

5.10.4 An assessment of the potential impacts of the Proposed Development on these and other cultural heritage assets is contained in the ES. The assessment highlights that, as much of the construction involved in delivery of the Proposed Development will take place within the existing built footprint of the airport (which contains relatively recent airport infrastructure of no historic environment interest), there is limited potential for direct impacts on heritage assets. Further, the design of the Proposed Development retains the surviving WWII structures to the south of the former Cornerpool Farm.

5.10.5 The development of the Silver Zone car park extension (Phase 2) will affect a relatively small area of land currently in agricultural use which has the potential for the presence of archaeological remains. However, field evaluation comprising geophysical survey and trial trenching within this area has confirmed that there are no features of archaeological interest.

5.10.6 The historic environment assessment contained within the ES includes an assessment of the loss of heritage significance due to changes to the setting of assets arising from the Proposed Development. The heritage assets included in the setting assessments are:

- LB1158202 Grade II listed Windmill House;
- SM1008291 Long barrow 350m south-west of Cornerpool Farm;
- SM1008300 Oval barrow on Felton Hill 100m east of The Round House;
- SM1008361 Two confluent bowl barrows on Felton Hill;
- SM1011126 Bowl barrow 420m ENE of Quarry Farm: part of the Redhill round barrow cemetery;
- SM1011127 Two bowl barrows 400m north-east of Quarry Farm: part of the Redhill round barrow cemetery;
- SM1011128 Bowl barrow 300m NNE of Quarry Farm: part of the Redhill round barrow cemetery; and
- SM1011129 Bowl barrow 230m NNE of Quarry Farm: part of the Redhill round barrow cemetery.

5.10.7 The assessment concludes that the construction and operation of the Proposed Development would have no/only minor effects upon the setting of these features. This is because most of the designated assets are located at a distance of over 500m from the application site and are effectively screened by surrounding topography. The development of the Silver Zone car park extension (Phase 2) does have the potential to affect the setting of Long barrow 350m southwest of Cornerpool Farm Scheduled Monument. To mitigate any adverse effects on this designated monument, BAL is proposing to create a landscaped bund to provide a natural screen for the Scheduled Monument that will minimise effects on the setting of this feature.

5.10.8 As the Proposed Development will have no direct effects (in terms of loss or disturbance) to any heritage assets or significant indirect effects on setting, it is considered to be in conformity with the key heritage policies of the Development Plan and NPPF.

5.11 Ecology

5.11.1 National and local planning policies seek to conserve and enhance biodiversity. Relevant Development Plan policies include Core Strategy Policy CS4 and Sites and Policies Plan Part 1 Policies DM8 and DM9 with further guidance on their implementation contained in the Biodiversity and Trees SPD and Mendip Bats Special Area of Conservation (SAC) Guidance on Development SPD. Paragraph 170 of the NPPF, meanwhile, states that planning decisions should minimise impacts on biodiversity and provide net gains to biodiversity where possible.

5.11.2 The application site does not include any statutory or non-statutory designated nature conservation sites. The North Somerset and Mendip Bats SAC is, at its closest point, circa 2km west of the application site boundary; this SAC is designated in part for the populations of lesser horseshoe and greater horseshoe bats it supports. There are fourteen statutory sites of national importance within 5km of the site, including ten Sites of Special Scientific Interest (SSSI), three Local Nature Reserves (LNRs) and one AONB. The majority of these sites are located to the west/ north

west of the application site with one site, Felton Common LNR, located immediately east of the eastern perimeter of the application site.

5.11.3 Ecological surveys have been carried out at Bristol Airport since 2005 and a sound understanding of its biodiversity has been established. Investigations carried out in 2018 specifically to inform the ecological assessment within the ES have included extensive surveys for habitats and plants, amphibians, reptiles, breeding birds, bats, badger, and hazel dormouse. The surveys have identified important habitats associated with the development proposals as including small areas of grassland and woodland used by bats. Badgers and common species of breeding bird are present, typically using the perimeter areas and surrounding farmland. No bat roosts or badger setts are associated with the development proposals. The surveys have confirmed that great crested newt, dormouse and common reptiles are not present within the application area.

5.11.4 Drawing on best practice, information from consultees and professional judgement and experience, a detailed assessment of the likely effects of the Proposed Development on the biodiversity of Bristol Airport and the surrounding area, including protected sites, has been completed and is presented in the ES. This assessment has considered the following sources of effects:

- Land-take/ land cover change/ construction;
- Increased light, noise and vibration;
- Increased vehicle movements (road traffic and aircraft);
- Pollution (contamination/ eutrophication); and
- Air quality changes, including dust deposition and emissions.

5.11.5 A fundamental part of the assessment has been to continuously review the evolving project design and use the biodiversity information gathered to avoid unnecessary negative impacts, to reduce others to acceptable limits and to integrate ecological measures as part of the overall scheme to ensure no negative significant impacts will occur. These measures are described in detail within the ES and can be summarised as follows.

- **On-site features**: retention and enhancement of boundary features with additional hedgerow, tree and native landscape planting; enhancement of areas of grassland to increase species diversity; creation and enhancement of woodland areas, enhancement of a pond, provision of deadwood habitat and parkland trees; enhancement of existing and provision of new bat building roosts and protection of existing dark corridors around the perimeter of the airport.
- **Offsite features**: enhancement of circa 8ha of offsite woodland to provide replacement habitat for lesser and greater horseshoe bats alongside other ecological benefits (e.g. for dormouse, other bat species, birds, amphibians, reptiles, woodland flora, and invertebrates).
- **General measures**: implementation of appropriate monitoring, management and reporting. Monitoring will allow adjustments in management to ensure high quality habitats are present.

5.11.6 Taking all of these factors into consideration, the assessment concludes that the construction and operation of the Proposed Development will result in only negligible and not significant adverse effects on all receptor groups scoped into the assessment, these being statutory and non-statutory designated sites (including the closest site, Felton Common LNR), priority habitats, bats, breeding birds and badgers.

North Somerset and Mendip Bats SAC

5.11.7 With specific regard to the North Somerset and Mendips Bat SAC (and constituent SSSIs), the Silver Zone car park extension (Phase 2), the year-round use of the existing extension (Phase 1) and

improvements to the A38 have the potential to affect greater and lesser horseshoe bats which are an interest features of the SAC. To mitigate impacts associated with these components of the scheme on these interest features, appropriate mitigation is proposed including suitable lighting to retain dark corridors and, in respect of the new area of car parking, a landscaped bund. Together, this will ensure that the retained and planted perimeter of the car parking areas and A38 will be suitable for foraging and commuting greater and lesser horseshoe bats.

5.11.8 Notwithstanding this, the assessment highlights that there will be a net loss of 3.73ha of suitable foraging habitat for greater and lesser horseshoe bats due to the development of the Silver Zone car park extension (Phase 2). A further 0.16ha of suitable foraging habitat for greater and lesser horseshoe bats will be lost as a result of the proposed highway improvements works on the A38/Downside Road. Whilst there remains extensive suitable habitat in the adjacent and wider landscape (including land owned by BAL and managed for horseshoe bats), there is a formal requirement to provide suitable replacement habitat (to be compliant with the North Somerset and Mendip Bat SAC SPD and to ensure no adverse effects on the integrity of the SAC in accordance with the Habitats Regulations 2017).

5.11.9 As set out above, circa 8ha of offsite woodland habitat will be provided and suitably managed as replacement habitat for lesser and greater horseshoe bats and this will provide other ecological benefits (e.g. for dormouse, other bat species, birds, amphibians, reptiles, woodland flora, and invertebrates). The type and amount of habitat to be provided has been determined in full accordance with the North Somerset and Mendip Bat SAC SPD and in discussion with NSC and Natural England.

5.11.10 Taking the above mitigation measures into account, the assessment presented in the ES concludes that no significant construction or operational effects will occur to the interest features of the SAC. This conclusion is corroborated by the information to support the Appropriate Assessment which is provided with the planning application to allow NSC to undertake an HRA, and which concludes that the Proposed Development will not adversely affect the integrity of the SAC.

Summary

5.11.11 With appropriate mitigation, the construction and operation of the Proposed Development is predicted to have no likely significant effects on biodiversity, including no adverse effects on the integrity of the North Somerset and Mendip Bats SAC. In accordance with national and local planning policies and associated guidance, the Proposed Development includes a range of enhancement measures that will generate positive ecological effects. In consequence, the proposal is compliant with Development Plan policy.

5.12 Water (including groundwater, surface water and flood risk)

5.12.1 The NPPF, through paragraphs 155-163, provides the basis for the consideration of flood risk in determining planning applications and requires that proposals seek to avoid inappropriate development in areas of flood risk and ensure that development does not increase flood risk elsewhere. Core Strategy Policy CS2 requires development proposals to incorporate sustainable drainage systems to manage runoff from new development whilst Policy CS3 states that development which on its own, or cumulatively, would result in (inter alia) water pollution will only be permitted if the potential adverse effects can be mitigated to an acceptable level. Policy DM1 of the Sites and Policies Plan Part 1, meanwhile, stipulates that development must consider its vulnerability to flooding and implications for the wider area, stating that open areas within developments must be designed to optimise drainage and reduce run-off, while protecting groundwater and surface water resources and quality.

Surface Water and Flood Risk

5.12.2 The application site is situated in Flood Zone 1 and is at a 'very low' to 'low' risk of fluvial (river), tidal, artificial and groundwater flooding. This reflects the location of Bristol Airport on a plateau and that, with the exception of one pond, no surface water bodies are present on the application site. Whilst several areas of surface water flood risk are indicated on the airport site (an existing surface water flowpath also crosses the A38 to the northeast of the airport), these occupy a small percentage of the overall site. Further, Bristol Airport's drainage system, which collects and manages runoff on-site before discharge (infiltration) into the ground, ensures that runoff from Bristol Airport's buildings, runway/taxiways and aprons, roads and associated impermeable/semi-impermeable areas is managed within the site so as to reduce the potential to increase flood risk off site.

5.12.3 The construction and operation of the Proposed Development will result in increases in impermeable area that could lead to greater surface water runoff and flood risk, reductions in water quality, and changes to water quantity. Sustainable drainage systems have therefore been incorporated into the scheme and are designed to the 1% Annual Exceedance Probability (AEP) plus a 30% climate change allowance event (as required by NPPF), with all runoff being managed on-site via infiltration. Embedded mitigation measures will additionally be put in place to retain construction runoff for suitable treatment before discharge, preventing uncontrolled sediment or spillages entering the freshwater environment as a potential pollutant.

5.12.4 The Flood Risk Assessment (FRA) that has informed the surface water and flood risk chapter of the ES sets out that this drainage solution will ensure that the Proposed Development mimics the natural hydrological cycle as closely as possible, and that runoff rates leaving the application site will be kept at or below greenfield rates and volumes. The FRA also highlights that, for several elements of the Proposed Development, the new drainage systems will result in betterment over existing conditions. The surface water and flood risk assessment contained in the ES therefore concludes that the Proposed Development will not increase flood risk to offsite receptors and will protect water quantity and quality.

Groundwater

5.12.5 The application site is largely underlain by the Black Rock Limestone Subgroup. The exception is an area in the south (associated with the Silver Zone car park) and also to the very north west where the bedrock geology is the Brockley Down Limestone. The Black Rock Limestone Subgroup is a Principal Aquifer whilst the Brockley Down Limestone is classified as a Secondary A Aquifer. The application site lies over the Bristol Airport Carboniferous Limestone groundwater body. The overall status of this water body (at 2015) is poor due to abstraction affecting natural flows, although Bristol Airport does not have any abstractions (and none are planned for the Proposed Development). All discharges are into land via soakaways or infiltration systems.

5.12.6 The application site is in an area of high groundwater vulnerability. It is within Zone 2 of a groundwater source protection zone (SPZ) (with the exception of the eastern edge which lies beyond the zone boundary) for Bristol Water's Chelvey source, which is approximately 3.4km to the north-east of the application site. A second SPZ lies to the east of Bristol Airport and extends into the easternmost part of the application site. In consequence, activity during the construction and operation of the Proposed Development that results in contamination entering the soil and underlying geology (e.g. spillage of fuels) has the potential to affect groundwater quality and to result in pollution.

5.12.7 An assessment of the impacts of the Proposed Development on groundwater is contained in the ES. This considers the impacts of the proposals on groundwater within the Principal Aquifer, groundwater abstractions and surface water fed by groundwater baseflow via springs. The

assessment highlights that the Proposed Development consists of similar activities to existing operations which have had no effect on groundwater resources or groundwater quality in the aquifer beneath the application site. Taking into account the implementation of measures contained within the CEMP (including measures to avoid entry of suspended solids and dissolved contaminants into the aquifer) as well as other embedded mitigation (such as the treatment of runoff passing through soakaways before infiltrating to ground), the assessment concludes that, for all receptors, effects will be minor/negligible and not significant. Notwithstanding this conclusion, a number of conditions are proposed (see **Appendix D**) that seek to protect further groundwater quality.

Summary

5.12.8 The assessments of the Proposed Development on surface water and groundwater (including WFD waterbodies) and flood risk have concluded, taking into account embedded mitigation measures, that there will be no significant effects. Overall, the Proposed Development is therefore considered to be compliant with the Development Plan and NPPF.

5.13 Community Well-being and Health

5.13.1 The NPPF recognises the role of the planning system in creating healthy communities and in this regard, the policies of the Development Plan seek to promote health and well-being. Core Strategy Policy CS26 requires a Health Impact Assessment (HIA) on all large-scale developments that assesses how the development will contribute to improving the health and well-being of the local population.

5.13.2 The human health effects of the Proposed Development have been assessed as part of the ES, having appropriate regard to HIA methods in order to ensure compliance with Policy CS26 of the Development Plan. Human health in the context of this assessment reflects the 'wider determinants of health' model that is commonly used to conceptualise how population health spans environmental, social and economic aspects. It adopts a source-pathway-receptor approach to identify and describe how a specific activity of the Proposed Development could change a determinant of health (and, therefore, result in an effect on health), considering impacts in respect of air quality, noise, traffic, community identity, healthcare services, employment and climate change for different population groups. The assessment draws upon, and reflects the findings of, the detailed assessments contained in the ES (which are described elsewhere in **Section 5** of this Planning Statement and are therefore not repeated here).

5.13.3 In summary, the assessment identifies that the construction and operation of the Proposed Development may generate negative health effects due to (inter alia) disruption to traffic, changes to community identity, noise disturbance and emissions to air, particularly for population groups near the airport site. The assessment also highlights that there may be increased use of NHS services associated with the growth in staff, passengers and airport visitors. However, the assessment concludes that any consequential change in population health is likely to be small and, taking into account the proposed mitigation measures embedded into the scheme (as described elsewhere in **Section 5** of this Planning Statement), effects are predicted to be negligible or minor and not significant.

5.13.4 The largest effect identified in the assessment is positive and relates to job creation and local investment during operation that will in-turn deliver long-term health benefits. Minor beneficial effects are also predicted to arise from the proposed transport improvements which may enhance road safety, encourage active travel and avoid significant adverse effects on journey times.

5.13.5 Overall, the ES demonstrates that the Proposed Development will not have significant adverse effects on community health and well-being whilst associated investment and employment opportunities will deliver long-term benefits. The Proposed Development is therefore compliant with the NPPF and policies of the Development Plan.

5.13.6 It is anticipated that the potential adverse impacts identified in the health assessment will be mitigated further, and benefits enhanced, through obligations contained in the proposed Section 106 Agreement Heads of Terms (**Appendix D**). These commitments, include, for example, the continuation of the Environmental Improvement Fund to support projects in the local area that are designed to manage the impacts associated with the operation of the airport, preparation and implementation of a Skills and Employment Plan (where appropriate) that will maximise the employment opportunities associated with the growth of the airport for local communities and surface access improvements as described above.

5.14 Climate Change

5.14.1 National and local planning policy, as well as the emerging JSP, promote sustainable design and seek to ensure that development proposals mitigate, and are resilient to the impacts of, climate change. In particular, Core Strategy Policy CS1 identifies a range of principles for guiding development relating to, inter alia, reducing greenhouse gas (GHG) emissions and climate change resilience. Policy CS2, meanwhile, sets out that development proposals should demonstrate a commitment to sustainable design and construction, increasing energy efficiency through design, and prioritising the use of sustainable low or zero carbon forms of renewable energy generation. This policy states that, when considering proposals for development, NSC will:

- Require designs that are energy efficient;
- Require the use of on-site renewable energy sources to meet a minimum of 15% for non-residential development 1,000m^2 and above; and
- Require a Building Research Establishments Environmental Assessment Method (BREEAM) rating of 'Very Good' on all non-residential developments over 500m^2 and 'Excellent' over 1,000m^2.

5.14.2 Further detail and guidance in respect of the implementation of Policies CS1 and CS2 is contained in the Creating Sustainable Buildings and Places in North Somerset SPD.

Greenhouse Gas Emissions

5.14.3 The Climate Change Act 2008 commits the UK to reduce its net GHG emissions by 80% below 1990 levels by 2050 and requires the Government to establish 5-year Carbon Budgets. Emissions arising from international aviation and international shipping were not included in the Carbon Budgets (and the 2050 target) when the Climate Change Act was enacted. In 2011, the Government issued its Carbon Plan, which sets out how the UK will achieve decarbonisation within the framework of UK energy policy and make the transition to a low carbon economy. The most recent Carbon Budget, the fifth, was released in 2016 and describes the budget for the period 2028-2032. The emerging JSP identifies that the agreed combined West of England carbon dioxide (CO_2) reduction target is to reduce absolute CO_2 emissions by 50% by 2035 from a 2014 baseline.

5.14.4 BAL is committed to minimising GHG emissions arising from its operations and this underpins BAL's proposals for the sustainable growth of Bristol Airport. As set out in **Section 2.4**, BAL has a positive track record in terms of emissions performance, gaining level 2 ACI Carbon Accreditation in 2018 and its ambition is to be carbon neutral by 2030. In this context, the emissions reported as part of

the ACI Carbon Accreditation for 2017 represented a circa 6% decrease in absolute carbon emissions and a 28% decrease in per passenger carbon emissions compared to 2014.

5.14.5 In the context of BAL's ongoing commitment to the sustainable growth of the airport, and consistent with the requirements of Policies CS1 and CS2, the NPPF and other material considerations, BAL has embedded a wide range of measures into the design of the Proposed Development to reduce energy demand and minimise GHG emissions during both the construction and operational phases of the Proposed Development. These measures include (inter alia):

- Actions within the CEMP to minimise energy use and GHG emissions (including, for example, high efficiency HGVs and plant);
- Consideration of whole-life carbon in materials selection for construction of the Proposed Development;
- A combination of Combined Heat and Power, wind and solar photovoltaic to provide 15% of energy from renewables on the estate;
- Passive measures for operational energy reductions (for example, use of natural daylight in buildings and solar shading);
- Active measures for operational energy reduction such as lower energy building systems, the use of high efficiency lighting, metering and the use of water efficient equipment;
- Sustainable travel measures, to be delivered through the ASAS and Workplace Travel Plan, designed to achieve an ambitious passenger modal share target of 15% employee target of 25%, reducing emissions associated with private car use (see **Section 5.5**).

5.14.6 In addition to the measures outlined above, the proposed conditions (see **Appendix D**) include a commitment to develop a Carbon and Climate Change Action Plan comprising of targets and associated carbon management initiatives that is to be agreed with NSC and monitored on an annual basis.

5.14.7 A GHG assessment has been carried out to determine the effect of the Proposed Development on the global climate and this is presented in Chapter 17 of the ES. The assessment includes the consideration of the following emission sources:

- Emissions resulting from activities within the application site;
- Emissions outside of the application site which are emitted as a direct result of the Proposed Development (e.g. aviation emissions);
- Embodied carbon of materials used to construct the Proposed Development; and
- Journeys to and from the airport site.

5.14.8 The assessment estimates that, under a worst-case scenario, the construction of the Proposed Development will generate 48.09 kt CO_2e associated with, for example, vehicle movements, energy used in on-site construction processes and the embodied carbon in materials. Construction emissions are inevitably relatively small in relation to the sector as a whole and cannot be said to have a substantial impact on meeting UK Carbon Budgets across sectors. Taking into account the mitigation measures above, the assessment concludes that effects on the global climate would not be significant.

5.14.9 During operation, the assessment has identified a worst-case scenario increase in emissions of 154.27 $ktCO_2$/yr when compared to forecast emissions at 10 mppa[57]. The majority of this increase is associated with aviation emissions, accounting for 106.59 $ktCO_2$/yr and reflecting the growth in total annual aircraft movements to 97,393; the remaining non-aviation sources of emissions (including, for example, electricity and other fuels used on site and surface access) account for 47.68 $ktCO_2e$/yr. The assessment concludes that this increase in GHG emissions is relatively minor in comparison to UK Carbon Budgets or national or regional sector totals (the Committee on Climate Change recommends a target of 37.5 million tonnes (Mt) CO_2 from the aviation sector by 2050 whilst the Clean Growth Strategy suggests that the obligations under the Climate Change Act can be met if aviation emissions are 44 $MtCO_2e$ by 2050). In consequence, no significant effects are identified,

5.14.10 BAL is supportive of the wider decarbonisation of the aviation sector through its membership of Sustainable Aviation and incentivises airlines to use more efficient aircraft whilst recognising that reducing aviation emissions is an international issue. As described in **Section 5.6**, BAL is retaining the night movement QC budgets and therefore incentivising quieter aircraft against a backdrop of an annual night movement limit of 4,000. Quieter aircraft also provide increased fuel efficiency and will therefore result in less GHG emissions per aircraft operating at BAL.

5.14.11 More broadly, the growth of regional airports such as Bristol can help to reduce emissions associated with passengers having to travel to airports outside the region, principally to the London airports. This 'leakage' results in additional emissions associated with travelling the extra distance to airports further from a passenger's normal place of work or residence.

Climate Change Resilience

5.14.12 Climate change predictions for the UK[58] illustrate that temperatures will rise through the century. The central estimate projection is for an increase in seasonality of rainfall, with significant increases in winter and decreases in summer. There is projected to be an increase in the intensity of extreme rainfall events alongside a high likelihood that drought events will become more severe. In this context, resilience to the impacts of climate change is an important consideration in the design of the Proposed Development in order to ensure safety and continuity of operations.

5.14.13 During construction, it is not anticipated that the frequency or intensity of climate hazards will change significantly when compared to the baseline climate. During the operational phase of the development, resilience has been addressed through the following measures:

- The proposed drainage strategy includes climate change allowances, as specified in the PPG (see **Section 5.12**);
- The design of ecological mitigation measures takes into account climate change through the planting of climate resilient species and increased connectivity of habitats;
- The demand for water is reduced through water efficiency measures such as efficient appliances/processes and the potential use of rainwater recycling;
- There is a commitment that decentralised renewable electricity generation will constitute a combined 15% of electricity use across the airport site (decentralised power production reduces the exposure of Bristol Airport to wider power failure, which can be exacerbated by

[57] ktCO2 is shown for the total rather than ktCO2e in order to show the worst case. Aviation emissions, which make up the majority of total emissions, are only available in CO_2 rather than CO_2e.
[58] UKCP09 is the most up-to-date set of climate change projections for the UK at the time of writing this report. UKCP18 is due for release in November 2018.

climate change). Heating sourced from waste gas from a CHP plant also decreases reliance on the wider network, thus increasing resilience;

- The projected central estimate temperature projections for the end of the design life of each asset will be considered in its detailed design stages (e.g. a building with an indicative 50-year design life will consider climate change projections for the 2080s).

Sustainable Design - BREEAM

5.14.14 Policy CS2 requires a BREEAM rating of 'Excellent' on non-residential development over 1,000m, although the Creating Sustainable Buildings and Places in North Somerset SPD (2015) states that "*where a successful case has been made demonstrating non-viability in meeting the required BREEAM standards, it may be permissible for applicants to apply a lower standard or potentially utilise alternative strategies. These will be assessed on their merits at the planning application stage*". BREEAM is used for assessing best practice in sustainable building design, construction and operation of non-residential buildings. It is used to improve, measure and certify the social, environmental and economic sustainability of these buildings using a system of credits across nine assessment categories. BREEAM only applies to 'occupied' buildings which, in the case of the Proposed Development, are the terminal extensions and it should be noted that standard airport-specific assessment criteria is not available; this will be developed in liaison with BRE to guide the formal certification process.

5.14.15 In accordance with the requirements of the SPD, a BREEAM Pre-Assessment Report is submitted with the planning application outlining the credits that are potentially achievable and those which the terminal development should target. The pre-assessment demonstrates that the terminal extensions can realistically achieve a BREEAM 'Very Good' rating; reflecting this, and taking account of the unique nature of airport-related development (including, inter alia, the specific operational and security requirements of terminals), BAL proposes that the terminal extensions are designed to achieve a BREEAM 'Very Good' rating, but striving for 'Excellent' delivery levels where possible. On this basis, an appropriate condition is proposed (see **Appendix D**).

5.14.16 Further detail in respect of the sustainability aspects of the design of the Proposed Development is contained in the Design and Access Statement.

Summary

5.14.17 The Proposed Development incorporates a range of measures that, allied with the commitments set out in the proposed Section 106 Heads of Terms in relation to sustainable travel, will support the delivery of sustainable development, minimising GHG emissions and ensuring resilience to the effects of Climate Change. The proposal is therefore considered to be in compliance with the Development Plan and NPPF.

5.15 Cumulative Impacts

5.15.1 In accordance with the EIA Regulations, Chapter 18 of the ES contains an assessment of the cumulative impacts of the Proposed Development. This assessment has considered:

- Inter-project effects - for each topic considered in this ES, an assessment is undertaken of how the environmental effects resulting from the Proposed Development could combine with the same topic-related effects generated by other proposed or committed developments to affect a common receptor. For example, noise generated by the construction of the Proposed Development and that generated from another construction site nearby could affect the same residential property receptor; and

- Inter-related effects - this involves assessing whether any of the individual environmental topic effects resulting from the Proposed Development, which are not significant in their own right, could combine to create effects that are significant. For example, noise generated by the operation of the Proposed Development and views of it from nearby residential properties may individually not result in significant effects, though combined, they could result in a significant effect on residential amenity.

5.15.2 No significant adverse inter-project effects are anticipated from the Proposed Development together with the extent 10 mppa consent and ongoing operational development. There is one beneficial inter-project effect of moderate significance on the collective health benefits from employment and investment from the 'other developments' in addition with the Proposed Development.

5.15.3 As a worst case, the combination of the potential changes in air quality, noise, vibration, visual, land quality, water quality and flood risk for most of the human receptors on and surrounding the application site is considered to result in minor effects that are not significant (which is no worse than the assessment of effects alone). For the assessment of effects alone, Melody Cottage and seven properties around the A38 were assessed as moderate significance due to the effects of visual changes and annual mean NO_2 respectively. At Melody Cottage this would be from operation year 1 when the visual effects on this property are at their worst. However, by operation year 15 the effects at Melody Cottage would be not significant, following the establishment of screening. The combination of the potential changes does not alter this assessment as these properties, along with other human receptors, are not considered to be affected by potential inter-related cumulative changes.

6. Conclusion

6.1.1 This Planning Statement has set out the context for BAL's proposals for the development of Bristol Airport to accommodate 12 mppa and has systematically assessed the compliance of the Proposed Development with the relevant policies of the Development Plan, NPPF and other material considerations including national aviation policy.

6.1.2 National aviation policy, the emerging JSP and the Development Plan support growth and development at Bristol Airport, provided that environmental impacts are controlled. The NPPF also makes clear that significant weight should be placed on the need to support economic growth. As part of the phased approach to the continuing development of Bristol Airport set out in the emerging Master Plan, the Proposed Development will enable Bristol Airport to grow beyond 10 mppa to 12 mppa by making the best use of the existing airport site. This will accommodate forecasted passenger demand up to around 2026 and will ensure that Bristol Airport continues and enhances its role as the principal international gateway for the South West region and a significant economic driver. By bringing forward the necessary infrastructure required to support the growth of Bristol Airport to 12 mppa and meet passenger demand, and by making the best use of the existing airport site, the Proposed Development is in clear accordance with the policy framework on airports.

6.1.3 Core Strategy Policy CS23 and Policy DM50 of the Sites and Policies Plan Part 1 are the principal, current Development Plan policies relating to development at Bristol Airport. They set out that proposals for the development of the airport will be required to demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure. BAL is committed to the sustainable growth of Bristol Airport and through the development of the proposals for a 12 mppa capacity airport, careful consideration has been given to the impacts of the Proposed Development on local communities, the environment, the transport network and the economy and appropriate mitigation and enhancement measures are proposed to minimise significant adverse impacts.

6.1.4 As highlighted in **Section 5** of this Planning Statement (with reference to the ES which includes a full assessment of the likely significant effects of the Proposed Development), moderate (and therefore potentially significant) air quality impacts are predicted at seven properties close to the A38, north of the airport near to Downside Road due to increases in NO_2 concentrations. However, three of the affected receptors are not permanent residences, all concentrations will remain comfortably within all legal limits and any breaches of these limits are predicted to be very unlikely. Additional mitigation measures will also be secured through the proposed Planning Conditions and Section 106 Heads of Terms set out in **Appendix D** to this Planning Statement to further reduce the air quality impacts of the Proposed Development. Further, all other properties are not expected to see any noticeable impact or change in air quality.

6.1.5 Significant visual impacts have been identified for a single receptor, Melody Cottage, However, the visual assessment highlights that the full establishment of the current boundary planting supplemented by additional woodland and scrub screen planting as specified in the landscape, visual and ecology mitigation masterplan will result in the visual effects sustained by residents at Melody Cottage lessening over time such that, by year 15 of the Proposed Development's operation, impacts will not be significant. It is also important to contextualise the visual effects assessed for residents at Melody Cottage and in particular that effects will only apply to views from the two upper floor windows in the property's southern frontage. Further, this single temporary adverse significant visual effect, in the context of the overall number of residential visual receptors present in the study area adopted for the visual assessment, is strongly indicative that the Proposed Development is acceptable in visual terms.

6.1.6 On balance, adverse effects associated with the Proposed Development will not be unacceptable and overall, the Proposed Development therefore accords with Policies CS23 and DM50 of the Development Plan.

6.1.7 In developing its proposals for the expansion of Bristol Airport to accommodate 12 mppa, BAL has sought to maximise development in the Green Belt inset; however, there is a demonstrable need for some components of this development to be located within the Green Belt; these components include car parking, highways improvements and enhancements to airside infrastructure which, for the purposes of this Planning Statement, are considered as 'inappropriate development' in the Green Belt requiring very special circumstances to justify them. The very special circumstances established in this Planning Statement and which justify the development in the Green Belt are:

- The need for development in the Green Belt;
- Insufficient space in the Green Belt inset to accommodate development requirements;
- No further suitable and available sites for car parking outside of the Green Belt;
- Policy support for growth at Bristol Airport;
- The socio-economic benefits of expansion; and
- Minor harm to the openness of the Green Belt.

6.1.8 Paragraph 144 of the NPPF sets out that very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. It is submitted that the very special circumstances listed above outweigh any potential harm to the Green Belt in this case.

6.1.9 The Proposed Development will result in the loss of BMV agricultural land associated with the development of the Silver Zone car park extension (Phase 2). However, given the relative small scale of land that will be developed, the assessment presented in this Planning Statement has demonstrated that this loss will not be significant and that, when weighed against the need for low-cost car parking in this location and the wider benefits that will be delivered through airport expansion, the loss of BMV land is justified.

6.1.10 The Proposed Development will deliver a wide range of material benefits to local communities, the environment, transport network and economy. These benefits include, but are not limited to:

- Significant economic and regeneration benefits to the local economy, West of England sub-region and the wider South West region including increased connectivity, inbound visitors and employment opportunities;
- An increase in the destinations served by the airport;
- Significant upgrades to the A38 junctions with Downside Road and West Lane as well an upgrade to the northern roundabout alongside funds to support the development of major strategic transport schemes within the region and the implementation of local highway improvements;
- The development of a new and ambitious ASAS that will deliver substantial investment in public transport, delivering a modal share public transport target of 15%;
- An updated Workplace Travel Plan through which BAL is proposing a modal share target of 25% for non-single occupancy car travel by staff;

- A car parking solution that offers the capacity necessary to meet demand associated with an additional 2 mppa, fully reflects the nature of the demand for car parking and will help reduce the market share, and impact, of unauthorised offsite providers;
- A range of measures to address impacts associated with the airport's operations on health and well-being including an enhanced noise insulation grant scheme, a noise control scheme and improvements, including an enhancement to funding available, through the community fund.
- Biodiversity and landscape enhancements including the enhancement of circa 8ha of offsite woodland to provide replacement habitat for lesser and greater horseshoe bats alongside other ecological benefits (e.g. for dormouse, other bat species, birds, amphibians, reptiles, woodland flora, and invertebrates);
- Improved passenger experience including through the adoption of high quality design principles in respect of the proposed terminal extensions.

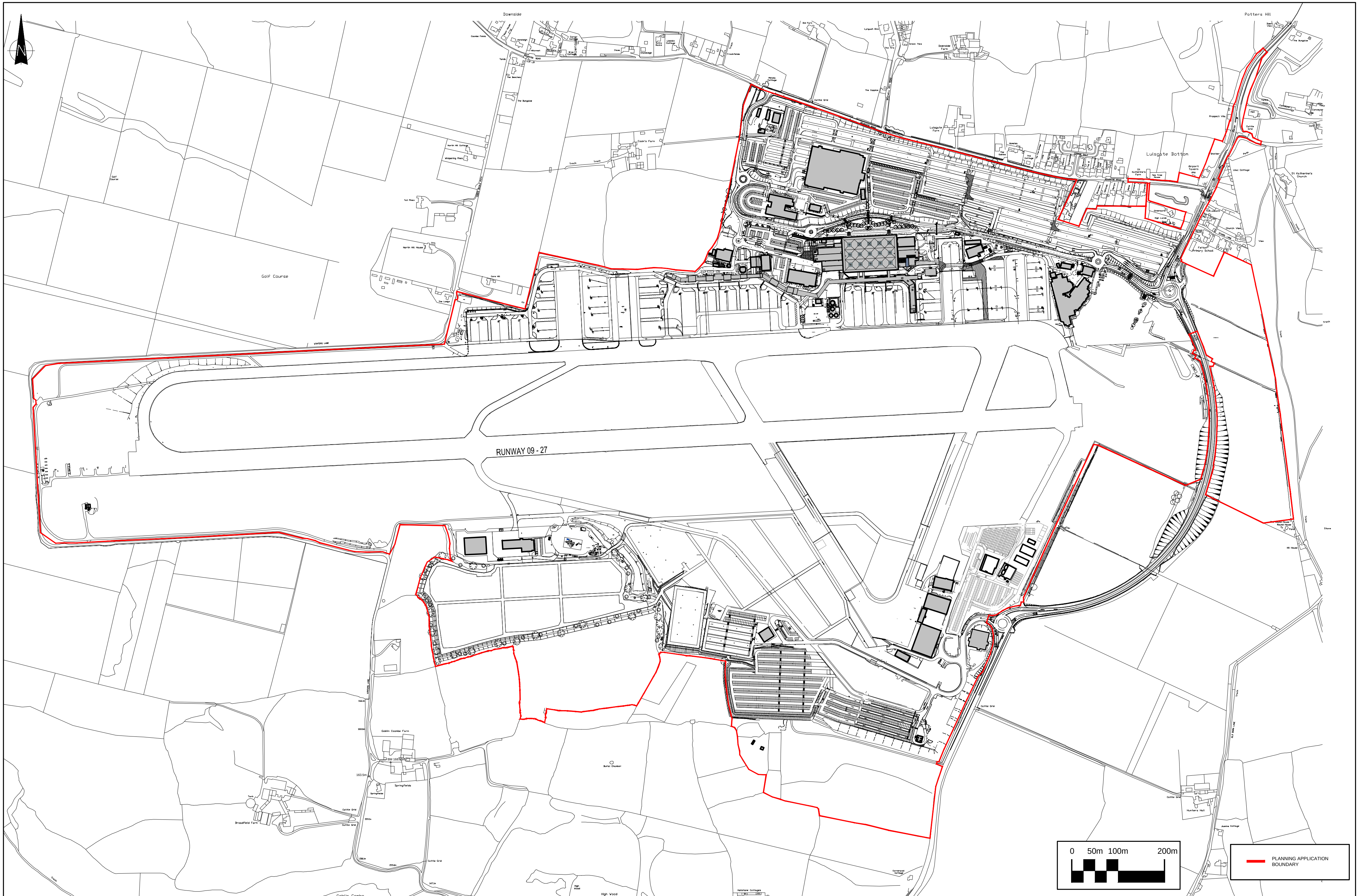
6.1.11 In conclusion, whilst the Proposed Development will result in some negative environmental impacts, these have been mitigated where possible such that there will be no long term, unacceptable adverse impacts. All impacts including cumulative impacts have been considered and the planning balance applied; taking into account the significant benefits associated with expansion of the airport to 12 mppa, on balance it is considered that the Proposed Development is compliant with the Development Plan, national planning policy and other material considerations. In-line with the presumption in favour of sustainable development advanced in the NPPF, it is respectfully submitted that the proposed development of Bristol Airport to accommodate 12 mppa be granted planning consent.

List of Abbreviations

AAP	Area Action Plan
ACI	Airports Council International
AEP	Annual Exceedance Probability
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
APF	Aviation Policy Framework
APU	Auxiliary Power Unit
ATM	Air Transport Movement
AQAL	Air Quality Assessment Level
AQO	Air Quality Objectives
ASAS	Airport Surface Access Strategy
AVTM	Ashton Vale to Temple Meads
BAL	Bristol Airport Limited
BMV	Best and Most Versatile
BREEAM	Building Research Establishments Environmental Assessment Method
CAA	Civil Aviation Authority
CCTV	Closed-circuit Television
CDA	Continuous Descent Approach
CEMP	Construction Environmental Management Plan
CO_2	Carbon Dioxide
dB	Decibel
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
DfT	Department for Transport
EIA	Environmental Impact Assessment
ES	Environmental Statement
EU	European Union
EV	Electric vehicle
FRA	Flood Risk Assessment
FTE	Full-time Equivalent
GHG	Greenhouse Gas
GPDO	General Permitted Development Order
GVA	Gross Value Added
Ha	Hectare
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HRA	Habitats Regulations Assessment
JLTP	Joint Local Transport Plan
JSP	Joint Spatial Plan
JTS	Joint Transport Study
km	Kilometre
kt	Kilotonne
LCA	Landscape Character Area
LED	Light-emitting Diode
Leq	Equivalent Continuous Noise Level
LNR	Local Nature Reserve
LOEL	Lowest Observed Adverse Effect Level

LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
m	Metre
MHCLG	Ministry of Housing, Communities and Local Government
µg m^{-3}	Micrograms Per Cubic Metre
MOVA	Microprocessor Optimised Vehicle Actuation
Mppa	Million Passengers Per Annum
MSCP	Multi-storey Car Park
Mt	Metric Tonne
NHS	National Health Service
NMA	Non-material Amendment
NO_2	Nitrogen Dioxide
NOEL	No Observed Adverse Effect Level
NO_x	Nitrogen Oxides
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NPSE	Noise Policy Statement for England
NPV	Net Present Value
NSHER	North Somerset Historic Environment Record
NSC	North Somerset Council
PBZ	Pre-board Zone
PM_{10}	Fine Particulate Matter
PM_{25}	Fine Particulate Matter
Ppa	Passengers Per Annum
PPC	Perforated Polyester Powder Coated
PPG	National Planning Practice Guidance
PRoW	Public Right of Way
QC	Quota Count
SAC	Special Area of Conservation
SBL	South Bristol Link
SCI	Statement of Community Involvement
SEP	Strategic Economic Plan
SPD	Supplementary Planning Document
SPZ	Source Protection Zone
SOAEL	Significant Observed Adverse Effect Level
SSSI	Site of Special Scientific Interest
SWMP	Site Waste Management Plan
UAEL	Unacceptable Adverse Effect Level
WECA	West of England Combined Authority
yr	Year

Appendix A
Site Location Plan



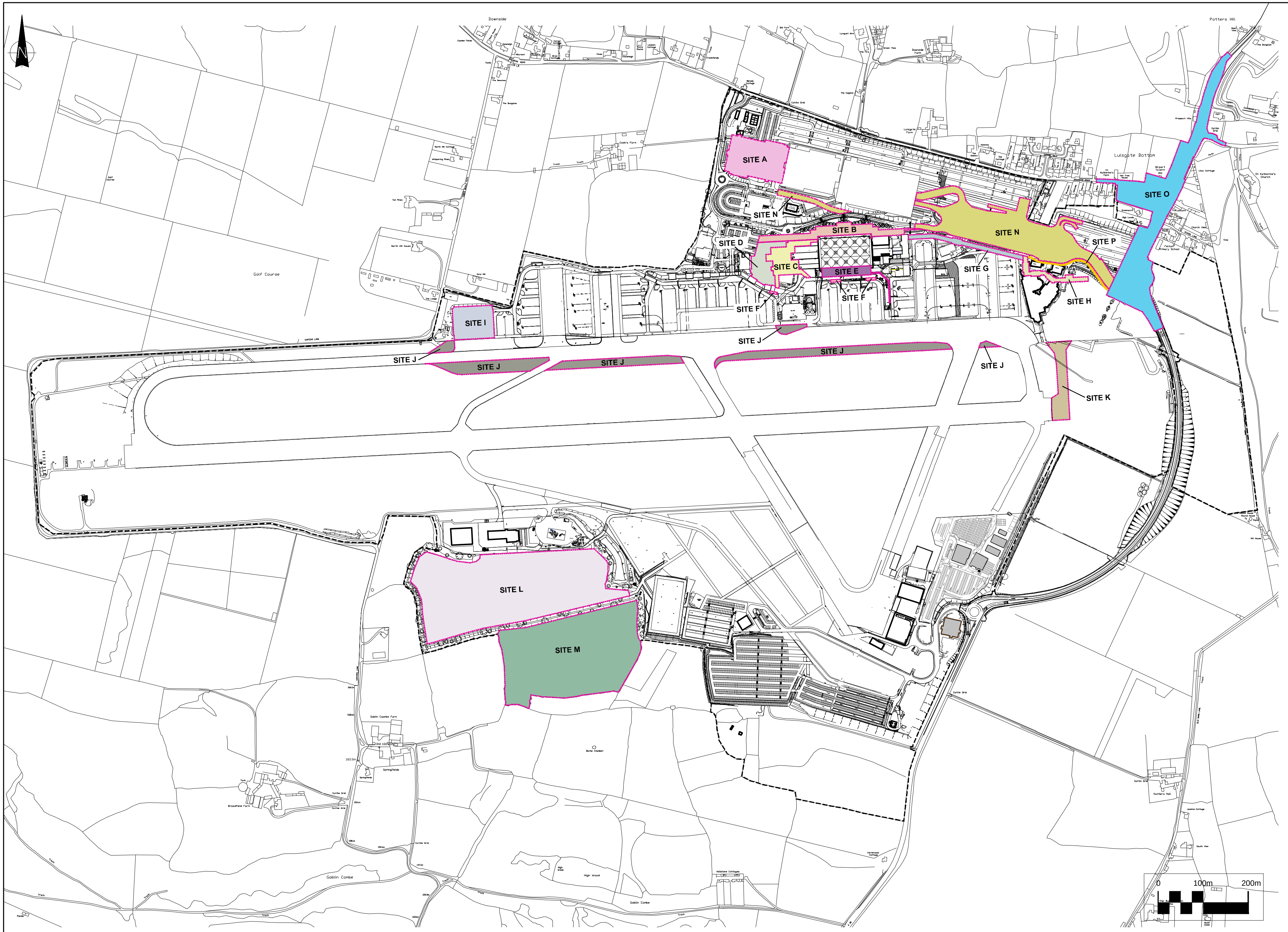
Rev no.	Date	Amendment	Drwn by:	Chk'd by:

TODD ARCHITECTS
2ND FLOOR TITANIC HOUSE,
6 QUEENS ROAD, BELFAST
BT3 9DT,
T +44 (0) 28 9024 5587,
E INFO@TODDARCH.CO.UK

TODD

Status: PLANNING	Client: BRISTOL AIRPORT
Date: 05/12/2018	Project Name: **12 MPPA PLANNING APPLICATION**
Dwn by: DJA / Ckd by: EH	Drawing Title: RED LINE PLAN
Scale: 1:2500 / Page: A0	Drawing No: **17090-00-100-400** / Revision: **00**

Appendix B
Site Reference Plan



SITE A
MULTI-STOREY CAR PARK 3

SITE B
CANOPIES TO FRONT OF EXISTING TERMINAL

SITE C
WEST TERMINAL EXTENSION (PHASE 2)

SITE D
SERVICE YARD

SITE E
SOUTH TERMINAL EXTENSION

SITE F
ARRIVALS VERTICAL CIRCULATION CORES (BUSSING)

SITE G
WALKWAY TO EAST PIER

SITE H
EAST PIER

SITE I
USE OF STANDS TO REFLECT STANDS 34-37

SITE J
TAXIWAY WIDENING AND FILLETS

SITE K
EAST TAXIWAY LINK

SITE L
SILVER ZONE CAR PARK EXTENSION (Phase 1)

SITE M
SILVER ZONE CAR PARK EXTENSION (Phase 2)

SITE N
GYRATORY ROAD WITH INTERNAL SURFACE CAR PARKING

SITE O
HIGHWAY IMPROVEMENTS

SITE P
ACOUSTIC WALL

Rev no:	Date:	Amendment:	Drwn by:	Chk'd by:

TODD ARCHITECTS
2ND FLOOR TITANIC HOUSE,
6 QUEENS ROAD, BELFAST
BT3 9DT,
T +44 (0) 28 9024 5587,
E INFO@TODDARCH.CO.UK

TODD

Status: PLANNING	Client: BRISTOL AIRPORT
Date: 05/12/18	Project Name: **12 MPPA PLANNING APPLICATION**
Dwn by: DJA / Ckd by: EH	Drawing Title: SITE REFERENCE PLAN
Scale: 1:2500 / Page: A0	Drawing No: **17090-00-100-402** / Revision: **00**

Appendix C
Summary of Planning History

Bristol Airport Planning History since 16th February 2011

The table below includes all planning applications submitted to NSC since the approval of the 10mppa planning application (09/P/1020/OT2). This includes associated Reserved Matters, Non-Material Amendments, Section 73 Agreements, and any GPDO applications which have led to changes to the 10mppa outline planning permission.

Planning Reference	Description of Development	Date Approved by NSC	Legal Agreement
09/P/1020/OT2	Outline planning application with details of some elements included and other details reserved for subsequent approval, for major development increasing passenger flight numbers at Bristol International Airport including: Erection of 2no. extensions to terminal building; Erection of 2no. two-storey walkways providing access and associated facilities to 3no. two-storey piers serving 18no. aircraft stands; Expansion to aircraft parking areas providing 9 new stands giving 33 stands in total; Erection of 2no. multi-storey car-parks of four and five storeys north of terminal building providing 3,850 spaces and transport interchange for buses and taxis with pedestrian bridge link; Erection of three-storey administration building north-west of terminal with associated parking following demolition of existing administration building; Construction of replacement underground aviation-fuel storage depot, energy centre and chiller compound comprising 3no 1,200m3 tanks and erection of single-storey fuel control building; Erection of two-storey building for landside support services off Downside Road entrance, replacement motor-transport and flight-catering buildings to north-west boundary and security control-post; Alterations to runways and taxiways including landfill, re-configure internal access roads and widen access at A38 junction; Upgrade north side surface car-park, upgrade and extend Silver Zone car-park to 12,000 car capacity to include staff-parking within an extension outside the airport boundary to south including replacement reception building; Additional car-parking area to south to include relocation of car-hire, valet service and associated reception building; Replace buildings to south of airfield for flying-club, mail-handling and snow-clearing; Erection of 5m high noise-reduction wall, 3m high acoustic fence and 12no. 5m high wind-turbines and associated landscaping.	16/02/2011	Section 106 Agreement signed 16/02/2011
11/P/0943/RM	Application for Reserved Matters of appearance and landscaping for construction of extension to the airport's western apron to include 6 new aircraft parking stands, taxi-way widening, reinforced earth-wall embankment, acoustic fence, 4no highmast lighting columns (20m high), landscaping, drainage and security fencing all pursuant to Outline application 09/P/1020/OT2	29/09/2011	N/A

Planning Reference	Description of Development	Date Approved by NSC	Legal Agreement
11/P/2127/NMA	Non-material Amendment to 11/P/0943/RM - (Application for Reserved Matters pursuant to Outline application 09/P/1020/OT2 for a Major Airport Development) - to change both the appearance of the acoustic fence and its southern location	16/12/2011	N/A
11/P/2190/RM	Submission of reserved matters of appearance, landscaping and scale for the erection of snow base facility pursuant to outline planning permission 09/P/1020/OT2 (comprehensive development at Bristol Airport).	15/02/2012	N/A
13/P/0457/RM	Reserved Matters application (landscaping, appearance and layout) for extension and redevelopment of North Side Surface car park and Silver Zone car park pursuant to Outline application 09/P/1020/OT2	05/07/2013	N/A
13/P/2265/RM	Reserved Matters of appearance, landscaping and layout of two extensions to the Silver Zone Car Park (Area A and Area C) pursuant to 09/P/1020/OT2	03/04/2014	N/A
14/P/0314/F[59]	Erection of 251 bed hotel with roof top plant, associated car parking and landscaping	22/05/2014	N/A
15/P/0869/NMA[60]	Non-Material Amendment to application 14/P/0314/F (Erection of 251 bed hotel with roof top plant, associated car parking and landscaping) to allow changes to the parapet and rooftop plant; changes to materials for the main elevations of the building; removal of: planters at rear entrance to building, element of GF glazing to breakfast area on internal South elevation and 1no. rooflight above restaurant area; Reduction in number of meeting rooms from 3 to 2 and revision of main pedestrian Terminal Entrance to create glazed lobby	15/05/2015	N/A
16/P/1041/NMA[61]	Non material amendment to application 14/P/0314/F (Erection of 251 bed hotel with roof top plant, associated car parking and landscaping) to change the top roof plant room parapet height. An overall increase in parapet height of 617.5mm is proposed (calculated based upon a 50mm adjustment taken into account due to original roof top parapet height of 187.41 indicated on drawings to being 50mm below that of the actual top of capping level.	20/05/2016	N/A
14/P/1343/NMA	Non material amendment to planning permission 09/P/1020/OT2 (Non-material amendment to 09/P/1020/OT2 - (Outline planning application with details of some elements included and other details reserved for subsequent approval, for major development increasing passenger flight numbers at Bristol International Airport) to allow amendments to the detailing of the external facade	17/07/2014	N/A

[59] Planning Application not submitted by Bristol Airport Ltd
[60] Planning Application not submitted by Bristol Airport Ltd
[61] Planning Application not submitted by Bristol Airport Ltd

Planning Reference	Description of Development	Date Approved by NSC	Legal Agreement
14/P/1362/NMA	Non Material Amendment to 09/P/1020/OT2 - (Outline permission for a major development at Bristol International Airport including: Erection of 2no extensions to terminal building) to replace biomass boiler for East Terminal Extension with air source heat pumps and solar photovoltaics and defer construction of Energy Centre until West Terminal Extension is constructed	17/07/2014	N/A
15/P/0057/RM	Submission of Reserved Matters of appearance, landscaping and layout relating to an extension to the Silver Zone Car Park referred to as Area B pursuant to Outline Planning Permission 09/P/1020/OT2	05/03/2015	N/A
15/P/0828/F	Proposed extension of the existing basement to facilitate the West Terminal Extension (approved under 09/P/1020/OT2).	16/06/2015	N/A
15/P/1346/NMA	Non material amendment to 09/P/1020/OT2 to change condition 60 wording to enable renewable energy to be delivered in an alternative form	10/08/2015	NMA
16/P/1440/F	Extension to the existing staff car park to provide an additional 196 parking spaces with associated lighting, replacement security fence and landscaping (WILL NOT BE IMPLEMENTED)	02/12/2016	N/A
16/P/1455/F	Development of a five storey multi-storey car park on existing car park providing a total of 1,878 spaces over two phases with associated pedestrian walkway, lighting and landscaping. (Replaces part of 09/P/1020/OT2) (PHASE 1A IMPLEMENTED AND PHASE 2A UNDER CONSTRUCTION)	11/11/2016	N/A
16/P/1486/F	Development of car parking with associated temporary lighting, fencing and landscaping on agricultural land, providing approximately 3,650 long stay car parking spaces for use in peak months May-October and forming an extension to the existing Silver Zone Car Park	11/11/2016	Deed of Variation to 09/P/1020/OT2 Section 106 Agreement
16/P/1795/RM	Application for approval of reserved matters for access, appearance, landscaping, layout and scale for the erection of a new car park reception building pursuant to outline planning permission 09/P/1020/OT2	11/11/2016	N/A
17/P/0301/NMA	Non-material amendment to 09/P/1020/OT2 (Outline planning application for major airport development with matters reserved for subsequent approval) to allow for three alterations to the north and west elevations of the western terminal extension (phase 1); increased height of the plenum screen, an external ground floor canopy, and an external mezzanine door to access the roof	23/02/2017	N/A
17/P/1273/F	Proposed use of on-board auxiliary power units between 06:00 and 23:00 hours in Aircraft on stands nos. 34 to 37	29/08/2017	N/A
17/P/2487/NMA	Non-material amendment to 16/P/1455/F (development of a five storey multi-storey car park on existing car park providing a total of 1,878 spaces over two phases with associated pedestrian walkway, lighting and landscaping) to	09/11/2017	N/A

Planning Reference	Description of Development	Date Approved by NSC	Legal Agreement
	add additional fire escape stairs, make adjustments to ramps and build the entire floor plate in Phase 1 as opposed to a partial floor plate		
18/P/3206/AIN	Consultation request under the provisions of Part 8 (Class F) of The Town And Country Planning (General Permitted Development) (Amendment) (England) Order 2015 for a proposed new administration building and associated facilities. (UNDER CONSTRUCTION)	06/06/2018	N/A
18/P/3536/AIN	Consultation request under the provisions of Part 8 (Class F) of The Town And Country Planning (General Permitted Development) (Amendment) (England) Order 2015 for proposed eastern walkway with integrated coaching gates. (NOT YET IMPLEMENTED)	19/07/2018	N/A
18/P/3562/RM	Reserved matters application for appearance and landscaping of proposed development of the far eastern apron (Site B) pursuant to outline planning permission 09/P/1020/OT2 (UNDER CONSTRUCTION)	01/10/2018	N/A
18/P/3571/NMA	Non material amendment to planning permission 09/P/1020/OT2 (major development at Bristol Airport) to allow minor revision to position of noise attenuation wall (referenced as Site W) and to construct noise attenuation fence in place of noise attenuation wall (UNDER CONSTRUCTION)	01/10/2018	N/A
18/P/3570/NMA	Non material amendment to planning permission 09/P/1020/OT2 (major development at Bristol Airport) to allow revision to layout of aircraft stands on the site of the far eastern apron (referenced as Site B) (UNDER CONSTRUCTION)	01/10/2018	N/A
18/P/4198/NMA	Non material amendment to planning permission 16/P/1455/F (development of a five storey multi-storey car park on existing car park providing a total of 1,878 spaces over two phases with associated pedestrian walkway, lighting and landscaping) to allow a further stair core (Stair Core 6), a small increase in height to the vertical circulation core (Lift and Stair Core 3) and the introduction of a balustrade edge protection on roof (PHASE 1B UNDER CONSTRUCTION)	01/10/2018	N/A
18/P/4238/AIN	Consultation request under the provisions of Part 8 (Class F) of The Town And Country Planning (General Permitted Development) (Amendment) (England) Order 2015 for proposed car rental consolidation centre. (UNDER CONSTRUCTION)	02/10/2018	N/A
18/P/4206/FUL	Extension to food and beverage area on the mezzanine level of the existing terminal building (NOT YET IMPLEMENTED)	09/10/2018	N/A
18/P/4007/FUL	Application to vary condition no.3 attached to planning permission 16/P/1486/F (development of car parking with associated temporary lighting, fencing and landscaping on agricultural land, providing approximately 3,650 long stay	25/10/2018	N/A

Planning Reference	Description of Development	Date Approved by NSC	Legal Agreement
	car parking spaces for use in peak months May-October and forming an extension to the existing Silver Zone Car Park) to allow year-round use of car park for a temporary period of one year.		
18/P/4522/AIN	Consultation request under the provisions of Part 8 (Class F) of The Town And Country Planning (General Permitted Development) (Amendment) (England) Order 2015 for the proposal to construct a new combined main gate facility and airline building. (NOT YET IMPLEMENTED)	26/10/2018	N/A
18/P/3950/FUL	Drainage mitigation scheme details in connection with the development of the far eastern apron at Bristol Airport, including soft landscaping and security fencing (UNDER CONSTRUCTION)	31/10/2018	N/A

Appendix D
Proposed Heads of Terms for Section 106 Agreement and Proposed Planning Conditions

Proposed Heads of Terms of Section 106 Agreement

A new Section 106 (S106) Agreement is envisaged for the 12 mppa application (**New S106 Agreement**) which contains the obligations and restrictions set out below.

In addition, it is proposed that the New S106 Agreement will discharge the existing S106 Agreements relating to the 10 mppa development (**Existing S106 Agreements**), but that any ongoing obligations in the Existing S106 Agreements will be carried through to the New S106 Agreement.

1. **Governance for sustainable transport measures**
   a) Continuation of the 'public transport steering group' established as part of the 10mppa consent. Renamed to 'Surface Access Steering Group' and with a widened scope to include all sustainable transport measures. A revised definition to be agreed.

2. **Major Schemes Fund**
   a) A fund [*sum to be agreed*] to support the development of major strategic transport schemes within the region that would include major passenger transport improvements to the network serving Bristol Airport. Allocation of funds would be governed by the Surface Access Steering Group.

3. **Airport Surface Access Strategy and Workplace Travel Plan**
   a) Preparation of an updated Airport Surface Access Strategy (ASAS) and a Workplace Travel Plan for Bristol Airport. A draft Workplace Travel Plan is submitted alongside the planning application. A draft ASAS to be submitted prior to commencement.
   b) Both the ASAS and the Workplace Travel Plan to include measures to achieve modal share targets for sustainable travel. Definitions and modal share targets to be agreed. Final documents to be developed and agreed with the Airport Transport Forum.
   c) Passenger modal share to be monitored and reported annually using CAA surveys, with the methodology to be reviewed by the Surface Access Steering Group.
   d) Commitment to a new dedicated full-time Travel Plan Coordinator role for a three year period.

4. **Public Transport**
   a) Commitment to maintain the express bus service connections:
      i. To Bristol City Centre with at least 6 services per hour. This would increase to 8 services per hour beyond 10mppa, subject to patronage and viability.
      ii. To Weston-super-Mare with at least an hourly service. This would increase to half-hourly beyond 10mppa, subject to patronage and viability.
      iii. To Bath, with at least an hourly service from 9mppa onwards.
   b) Commitment to ongoing promotion and development of long-distance services to destinations in Devon and Wales, subject to patronage and viability.

   c) A fund [*sum to be agreed*] for the ongoing development of public transport serving Bristol Airport. *[Note: This would replace the £100,000 per annum contribution that commenced as part of the 10mppa planning consent].* The fund would be managed by the Surface Access Steering Group and would be available for public transport improvements within the following categories:
      i. Development of new routes, in addition to those referenced in 4a
      ii. Frequency enhancements, including to the services referenced in 4a
      iii. Service quality upgrades

iv. Bus priority measures
v. Passenger interchange improvements
vi. Improved passenger information
vii. Improved ticketing
viii. Technology innovations and improvements
ix. Trial of demand-responsive services

5. Metrobus

a) Development of proposals and a contribution [*sum to be agreed*] towards upgrading the A370 Weston-super-Mare to Bristol bus corridor to enable Metrobus services (e.g. contributions towards raised kerbs, new shelters and iPoints at appropriate stops, including the airport).
b) A contribution [*sum to be agreed*] towards kick-starting a new Metrobus Complimentary Service on the A370 corridor to strengthen connectivity between Bristol Airport, Weston-super-Mare and surrounding villages.

6. Highway Improvements

a) Complete the proposed highway improvement scheme at A38/Downside Road/West Lane prior to passenger numbers reaching 12mppa.
b) A fund [*sum to be agreed*] to support the implementation of local highway improvements within the following categories:
   i. Junction capacity
   ii. Highway safety
   iii. Footway and cycleway improvements

7. Parking Controls

a) Development of proposals for an Authorised Waiting Area for private hire vehicles combined with an additional drop-off facility at Bristol Airport. This facility would be appropriately charged and time-limited to reduce demand for short-stay waiting off-site.
b) A contribution [*sum to be agreed*] towards the costs of implementing Traffic Regulation Orders and other matters relating to the introduction of new on-street parking controls in the local area.
c) A contribution [*sum to be agreed*] for the purpose of funding 1FTE NSC parking/enforcement officer for a period of five years.
d) Agreement to implement items a), b) and c) above jointly, managed through the Surface Access Steering Group.

8. Air Quality

Surface Access

a) A commitment to provide up to 6no. Electric Vehicle (EV) charging points across the airport, including plans for publicly available charging points, developed in partnership with NSC. Locations to be agreed, subject to feasibility.
b) A commitment to establish a zero-emission pool car operation as part of the Workplace Travel Plan, to include at least two zero-emission vehicles and associated infrastructure.

General

c) For BAL to produce an Air Quality Action Plan, no later than 6 months after the Commencement of Development which will detail actions as to the initiatives to monitor and improve air quality at the Airport. Monitoring should include:
   I. Continuous monitoring of oxides of nitrogen and fine particulate matter (PM10 & 2.5) at two appropriate fixed sites (one existing and one new location) to be agreed with the Council.
   II. Diffusion tube monitoring of nitrogen dioxide at not less than 16no. sites to be agreed with the Council. In addition, co-location monitoring with at least three diffusion tubes should be established at the site of the fixed continuous monitoring.
   III. To provide to the Council an annual report (in the format of a section in the Annual Operations Monitoring Report (AOMP)) with a summary of the results described in (i) and (ii) above. The AOMP will be presented to the Airport Consultative Committee and made public.
   IV. To review the air quality monitoring results with the Council on an annual basis. If monitoring identifies a significant deterioration in the air quality at the Airport based on recognised and established standards a mitigation plan will be provided to the council detailing steps as to how this will be improved will be provided within 3 months after review.

9. Noise (Air and Ground Noise)

Air

a) To implement a Noise Control Scheme for the Airport within 12 months of the Commencement of the Development
b) The Noise Control Scheme shall require BAL to impose penalties for the breach of noise limits and to provide incentives for the use of quieter aircraft. The penalties will be published on an annual basis in a format agreed, and a noise performance league table will be reported in the Annual Operations Monitoring Report (see below).
c) BAL shall encourage operators of aircraft to adopt operational procedures and practices in conjunction with the Flight Operations Committee aimed at achieving ongoing improvements in the levels of aircraft noise and minimising the impact of noise, and facilitate the adoption of these procedures and practices including:
   I. The use of continuous descent approaches wherever possible consistent with flight safety;
   II. The avoidance of reverse thrust 23:00 hours and 06:59 hours consistent with flight safety;
   III. The application of best practice flight management procedures which might reasonably be expected to reduce noise and fuel burn;
   IV. To produce an Annual Operations Monitoring Report which shall include noise contours, noise monitoring and track keeping results, noise quota usage, noise complaints, aircraft movements and provide a progress report on noise management initiatives with both reports published on BAL's website and copies made available free of charge to the public on request.
d) On the occasion of the publication of the third Annual Operations Monitoring Report following Commencement of Development and subsequently at three yearly intervals BAL shall submit to the Council a verification report which shall identify the input data, the methodology and the output data used to calculate the Noise Contours and recommend the appropriate calculation procedure for producing the Noise Contours.
e) To complete a feasibility study to understand the potential for utilising electric vehicles in airside and landside areas.

Ground

f) To review and produce an updated Ground Noise Management Strategy for the Airport ("the Ground Noise Management Strategy") in consultation with the Council, NATS and airlines within 12 months of the Commencement of the Development which will identify measures to minimise the effects of ground noise, including:
   I. Operational and procedural controls on the ground running of aircraft;
   II. The installation of noise attenuation buildings and screens;
   III. Identification of key performance indicators for monitoring ground noise management.
   IV. The installation of a permanent ground noise monitor which will be situated airside at a location to be agreed with the Council.

g) To implement and maintain a Ground Noise Management Strategy by reviewing, producing, maintaining and enforcing standing instructions in relation to activities covered by the Ground Noise Management Strategy and to use reasonable endeavours to procure the implementation by aircraft operators of the Ground Noise Management Strategy, including pursuing follow up action with the operators of aircraft that disregard the standing instructions subject to constraints of safety.

h) To report on progress of the Ground Noise Management Strategy, through the AOMP, to the Consultative Committee and make such reports available to the public.

10. Environment and Biodiversity

A commitment for BAL to establish an Environmental Steering Group (membership and Terms of Reference to be agreed with NSC).

11. Environmental and Amenity Improvement Fund

To establish prior to the Commencement of Development the *Airport Environmental and Amenity Improvement Fund (wording to be agreed)* which will be administered by representatives of BAL and the Council on behalf of the local community [*geographical area to be agreed*] and to be used for the purposes of funding:

I. Mitigation to address unforeseen adverse environmental impacts or adverse impacts on the amenity of the local community arising from the development .

To pay into the *Airport Environmental and Amenity Improvement Fund* at the point of it coming into force and on annual basis a fixed rate [*sum to be agreed*] per annum for 10 years.

12. Employment

To submit within 12 months of the Commencement of Development for approval by the Council a Skills and Employment Plan working with appropriate agencies *(to be confirmed)* aimed at achieving the delivery of employment opportunities at the Airport for residents in the airport's catchment, in particular residents of the settlements in the vicinity of the Airport, including South Bristol and Weston-Super-Mare.

13. Regularisation of conditions of 10mppa consent and 12mppa consent

A clause will be included to clarify the extent to which certain conditions of the 10mppa and 12mppa permissions will apply where such conditions would otherwise be incompatible on the implementation of both permissions.

Proposed Planning 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 8 years from the date of this permission.

   REASON: In order to comply with Section 92 of the Town and Country Planning Act 1990.

2. The development hereby permitted shall be begun either before the expiration of 8 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, whichever is the later.

   REASON: In order to comply with Section 92 of the Town and Country Planning Act 1990.

East walkway and pier

3. Details of reserved matters comprising the:

   a) external appearance;

   b) scale;

   c) existing and proposed levels; and

   d) layout

   of the new east pier walkway hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

   REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

4. Details of reserved matters comprising the:

   a) external appearance;

   b) scale;

   c) existing and proposed levels; and

   d) layout

   of the new east pier hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence within until reserved matters have been approved. The development shall be carried out as approved.

   REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

Service yard

5. Details of reserved matters comprising the:

   a) external appearance;

   b) landscaping;

c) scale;

d) existing and proposed levels;

e) layout; and

f) access

of the service yard hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

Car parking and internal road improvements

6. Details of reserved matters comprising the:

a) external appearance;

b) landscaping;

c) scale;

d) existing and proposed levels; and

e) access.

of the multi-storey car park (Phase 3) hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

7. Details of reserved matters comprising the:

a) external appearance;

b) landscaping;

c) scale;

d) existing and proposed levels;

e) layout; and

f) access

of the Silver Zone car park extension (Phase 2) hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure)

(England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

8. Details of reserved matters comprising the:

   a) external appearance;

   b) landscaping;

   c) scale;

   d) existing and proposed levels;

   e) layout; and

   f) access

   of the internal road layout including gyratory road and internal surface car parking hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

   REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

Airside infrastructure

9. Details of reserved matters comprising the:

   a) external appearance;

   b) scale;

   c) existing and proposed levels; and

   d) layout

   of the eastern taxiway link hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

   REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

10. Details of reserved matters comprising the:

    a) external appearance;

    b) scale;

    c) existing and proposed levels; and

    d) layout

    of operational amendments to Taxiway Golf (taxiway widening and fillets) hereby permitted shall be submitted to and approved by the Local Planning Authority. Development shall not commence until reserved matters have been approved. The development shall be carried out as approved.

REASON; The application was submitted as an outline application in accordance with the provisions of Article 5 of the Town and Country Planning (General Development Procedure) (England) Order 2015 and in accordance with Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

Highway works

11. No development hereby permitted shall take place within the site until detailed drawings for the improvements to the A38 have been submitted to and approved in writing by the Local Planning Authority.

    REASON: To ensure that the public highway is not adversely affected by traffic arising from the development and that appropriate provision is made for surface access in accordance with Policies CS10 and CS23 of the North Somerset Council Core Strategy and Policies DM24 and DM50 of the North Somerset Council Sites and Policies Plan Part 1.

Annual Operations Monitoring Report

12. An Annual Operations Monitoring Report shall be submitted to the Local Planning Authority no later than 31 May each year. The Report should provide statistical information on the operational activities which occur at Bristol Airport and associated monitoring of environmental performance.

    REASON: To ensure that the operational impacts of the development are regularly monitored and reported.

Air noise

13. The area enclosed by the 57dB(A) Leq16hr (0700-2300) contour, when calculated and measured by the Federal Aviation Authority integrated noise model 7.0 or as may be amended over a 92 day period between mid June and mid September, shall not exceed 12.42 sq km using the standardised average mode from the date of grant of this permission. Forecast aircraft movements and consequential noise contours for the forthcoming year shall be reported to the Local Planning Authority annually within the Annual Operations Monitoring Report.

    REASON: To ensure that the development does not give rise to unacceptable levels of noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

14. The area enclosed by the 63dB(A) Leq 16hr (0700h – 2300h) contour for the forthcoming year shall be reported to the Local Planning Authority annually within the Annual Operations Monitoring Report. Residential properties that are located within the area of this contour will be eligible for a grant under the noise insulation grant scheme and details shall be submitted to the Local Planning Authority for approval. The grants shall subsequently be offered to the properties in question.

    REASON: To ensure that the proposed development does not give rise to unacceptable levels of air noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

Ground noise

15. Auxiliary Power Units shall not be used on stands 33 to 39 between the hours of 23:00 and 06:00.

    REASON: To ensure that the development does not give rise to unacceptable levels of ground noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

16. Details of the height and design of the acoustic barrier to be erected to the north of the eastern apron as shown in Drawing [approved drawing number to be inserted] shall be submitted to and approved in writing by the Local Planning Authority.

REASON: To ensure that the development does not give rise to unacceptable levels of ground noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

Night Flying

17. In this condition and the three following conditions:

- "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 and 06.00, and
- "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 below;
- "the summer season' means the period of British Summer Time in each year as fixed by or under the Summer Time Act 1972, and
- "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.

(b) For the purpose of this condition:

(i) the noise classification of any aircraft shall be that set out as per those defined for designated aerodromes;

(ii) subject to paragraph (i) and (iii), the quota count of an aircraft on take-off or landing shall be calculated on the basis of the noise classification for that aircraft on take-off or landing, as follows:

Noise Classification	**Quota Count**
Below 84 EPNdB	0
84 – 86.9 EPNdB	0.25
87 - 89.9 EPNdB	0.5
90 - 92.9 EPNdB	1
93 – 95.9 EPNdb	2
96 – 98.9 EPNdB	4
99 – 101.9 EPNdb	8
Greater than 101.9 EPNdB	16

(iii) Exempt aircraft are -

- those jet aircraft with a maximum certificated weight not exceeding 11,600 kg,

- those aircraft, which on the basis of their noise data are classified at less than 84 EPNdB and which are indicated as exempt in Part 2 of the Schedule to the Notice. The taking off or landing of such aircraft shall not count towards the quota.

(c) 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.

(d) This condition shall take effect at the start of the first full season (being the winter season or the summer season) commencing after the date on which the development becomes operational. 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.

(e) An aircraft with a quota count of 4 or above shall not:

(i) be scheduled to take off or land during the period 23.00 hours to 06.00 hours;

(ii) be permitted to take off during the period 23.00 to 06.00 except in the period 23.00 hours to 23.30 hours 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.

(f) An aircraft with a quota count of 8 or 16 shall not:

(i) be scheduled to take off or land during the period 23.00 hours to 07.00 hours;

(ii) be permitted to take off in the period 23.00 hours to 07.00 hours, except in the period 23.00 hours to 23.30 hours in circumstances where:

- it was scheduled to take off prior to 23.00 hours; and
- the take-off was delayed for reasons beyond the control of the aircraft operator.

(g) 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 is scheduled landing time as appropriate) sufficient information 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.

(h) If a quota specified in paragraph (d) is exceeded by up to 10% in any one season, the quota for the season next following shall be reduced by the amount of that excess.

(i) If that quota is exceeded by 10% or more in any one season, the quota for the season next following shall be reduced by the amount of excess up to 10% plus twice the amount of the excess over 10%.

(j) 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 following season.

(k) 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 8 or 16, is scheduled to land after 06.30 but lands before 06.00;
- military flights or state flights;

Provided that, for the avoidance of doubt, where an aircraft is scheduled to land between 06.00 and 06.30 hours but lands before 06.00, 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 week from it occurring, of any occasion (whether a single occasion or one of a series of occasions) to which this paragraph applies.

(l) 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.

REASON: To ensure that the proposed development does not give rise to unacceptable levels of night noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

18. Bristol Airport shall provide at the end of every season a report to the Local Planning Authority and to all other members of the Airport Consultative Committee on the usage of the quota.

    REASON: To ensure that the development does not give rise to unacceptable levels of night noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

19. The total number of 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 (as defined in condition 17). For the purposes of this condition, flights falling within the categories listed in condition 17 (k) shall not be included.

    REASON: To ensure that the development does not give rise to unacceptable levels of night noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

20. The total number of take-offs and landings between the hours of 0600 and 0700 and between 23:00 hours and 2330 hours shall not exceed 10,500 in any calendar year. For the purposes of this condition, flights falling within the categories listed in condition 17 (k) shall not be included.

    REASON: To ensure that the development does not give rise to unacceptable levels of night noise in accordance with Policy DM50 of the North Somerset Council Sites and Policies Plan Part 1.

Archaeology

21. The developer shall afford access at all reasonable times to any archaeologist approved by the Local Planning Authority during the construction of the Silver Zone car park extension (Phase 2) and shall allow them to record items of interest and finds.

    REASON: To ensure that cultural heritage including archaeology is conserved in accordance with Policy CS5 of the North Somerset Council Core Strategy and Policy DM6 of the North Somerset Council Sites and Policies Plan Part 1.

Landscape and biodiversity

22. For those components where landscaping is a reserved matter, development of each individual component of the approved scheme shall not commence until full landscaping specifications for the relevant element have been submitted to and approved by the Local Planning Authority. The scheme as submitted shall include:

    a) proposed finished levels;

    b) existing trees, shrubs, hedges or other soft features to be retained;

    c) planting plans, including specifications of species, sizes, planting centres, number and percentage mix;

    d) location of any service runs; and

    e) a management plan, which shall include maintenance details and a timescale for implementation of the planting.

    REASON: To ensure that the development conserves and enhances landscape character and visual amenity in accordance with Policy CS5 of the North Somerset Council Core Strategy and Policy DM10 of the North Somerset Council Sites and Policies Plan Part 1.

23. All the planting shall be undertaken in accordance with the timescale set out in the management plan (condition 22 e).

    REASON: To ensure that the development conserves and enhances landscape character and visual amenity in accordance with Policy CS5 of the North Somerset Council Core Strategy and Policy DM10 of the North Somerset Council Sites and Policies Plan Part 1.

24. Any trees, shrubs or hedges (or part thereof) which comprise part of the scheme of landscaping and which within a period of 10 years from the date of planting die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species.

    REASON: To ensure that the development conserves and enhances landscape character and visual amenity in accordance with Policy CS5 of the North Somerset Council Core Strategy and Policy DM9 and Policy DM10 of the North Somerset Council Sites and Policies Plan Part 1.

25. The landscape bund as detailed on Drawing [approved drawing number to be inserted] should be completed prior to the operation of the Silver Zone car park extension (Phase 2), in accordance with approved plans.

    REASON: To ensure that the development conserves and enhances landscape character and visual amenity in accordance with Policy CS5 of the North Somerset Council Core Strategy and Policy DM9 and Policy DM10 of the North Somerset Council Sites and Policies Plan Part 1.

26. The development of each individual component of the approved scheme shall not commence until full lighting details, developed in accordance with the Lighting Impact Assessment, for the relevant element have been submitted to and approved by the Local Planning Authority.

    REASON: To ensure that lighting associated with the development does not have an adverse impact on ecology, landscape character and visual amenity in accordance with Policies DM8 and DM10 of the North Somerset Council Sites and Policies Plan Part 1.

27. Prior to the commencement of development, a ten-year Airport Landscape, Biodiversity and Habitat Action Plan shall be submitted to and approved in writing by the Local Planning Authority. The ecological mitigation proposals detailed in Chapter 11 of the Environmental Statement shall be undertaken as set out in the report. The Airport Landscape, Biodiversity and Habitat Action Plan should include these principles, SMART targets, relevant Habitat and Species Action Plans with ecological

monitoring protocols and landscape management proposals and be submitted to and approved in writing by the Local Planning Authority and implemented in full unless otherwise agreed in writing.
l Progress against the Plan will be reported within the Annual Operations Monitoring Report.

REASON: To ensure the conservation and enhancement of biodiversity in accordance with Policy CS4 of the North Somerset Council Core Strategy and Policies DM8 and DM9 of the North Somerset Council Sites and Policies Plan Part 1.

28. Prior to commencement of any development an Off Site Habitat Management Plan must be submitted to and approved in writing by the Local Planning Authority. The Habitat Management Plan must include details of measures for replacement habitat for horseshoe bats (in accordance with the North Somerset and Mendip Bats Special Area of Conservation Guidance on Development: Supplementary Planning Document dated January 2018) which replacement habitat must be provided before the commencement of any development that results in the loss of horseshoe bat habitat. The Habitat Management Plan must be implemented in full and progress against the Habitat Management Plan must be reported within the Annual Operations Monitoring Report

REASON: To ensure the conservation and enhancement of biodiversity in accordance with Policy CS4 of the North Somerset Council Core Strategy and Policies DM8 and DM9 of the North Somerset Council Sites and Policies Plan Part 1.

29. Lighting shall not exceed 0.5 lux at the perimeter of the extension to the Silver Zone car park (Phase 2) and 1 lux at the perimeter of the extension to the Silver Zone car park (Phase 1).

REASON: To ensure the conservation and enhancement of biodiversity in accordance with Policy CS4 of the North Somerset Council Core Strategy and Policies DM8 and DM9 of the North Somerset Council Sites and Policies Plan Part 1.

Flood risk, water quality and drainage

30. Prior to the commencement of development, full details identifying the monitoring, mitigation and reporting of groundwater level and quality during the construction operations hereby approved shall be submitted to and approved in writing by the Local Planning Authority. These details shall identify the groundwater monitoring that will be implemented and monitored to measure any impacts on groundwater that might result from the development. 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.

REASON: To protect groundwater quality in accordance with Policy CS3 of the North Somerset Council Core Strategy and Policy DM1 of the North Somerset Council Sites and Policies Plan Part 1.

31. Prior to the commencement of each individual component of the approved development, details of surface water drainage works shall be submitted to and approved in writing by the Local Planning Authority. The approved works shall be implemented prior to completion of the development.

REASON: To prevent the increased risk of flooding and protect water quality in accordance with Policy CS3 of the North Somerset Council Core Strategy and Policy DM1 of the North Somerset Council Sites and Policies Plan Part 1.

32. Prior to the commencement of each individual component of the approved development, details of a foul water drainage scheme including a timetable for its implementation, shall be submitted to and approved in writing by the Local Planning Authority.

REASON: To prevent the increased risk of flooding and protect water quality in accordance with Policy CS3 of the North Somerset Council Core Strategy and Policy DM1 of the North Somerset Council Sites and Policies Plan Part 1.

Land quality

33. Prior to the commencement of each individual component of the approved development, a site investigation shall take place to investigate the area to confirm ground conditions and identify any existing contamination. The site investigation report shall inform and develop the CEMP and, if contamination is present, a remediation strategy shall be developed. If remediation is required, it shall be subject to verification to confirm that the land is suitable for use for the development. A site investigation strategy, site investigation report, remediation strategy and remediation verification report for the development shall be provided in writing to the Local Planning Authority prior to the construction phase of the development commencing.

    REASON: To minimise the risk of contamination affecting land and water quality and to promote the remediation of contaminated land in accordance with Policy CS3 of the North Somerset Council Core Strategy.

Sustainable design and climate change

34. Development of the west and south terminal extensions shall not take place until a design stage certificate (with interim rating if available) has been submitted to the Local Planning Authority indicating that the development can achieve the stipulated final BREEAM level. A final certificate certifying that BREEAM (or any such equivalent national measure of sustainable building which replaces that scheme) rating 'Very Good' has been achieved for this development shall be submitted within 6 weeks 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.

    REASON: To ensure that the terminal extensions are sustainably designed in accordance with North Somerset Council Core Strategy Policy CS2 and Policy DM32 of the North Somerset Council Sites and Policies Plan Part 1.

35. Detailed drawings to a scale of 1:100 or 1:200 showing the position and appearance of roof mounted micro-turbines (to be located on atop of MSCP Phase 3) and including details of any equipment cabinets and acoustic information regarding their optimum noise generation, shall be submitted to and approved in writing by the Local Planning Authority before they are installed.

    REASON: To ensure that the appearance of the turbines is acceptable and that noise generation will not cause unacceptable harm to the amenities of nearby residents, in accordance with Policy CS3 of the North Somerset Council Core Strategy.

36. A Carbon and Climate Change Action Plan shall be submitted to and approved in writing by the Local Planning Authority 12 months from the date of the permission or before the occupation of any new building or completion of any development included in the application, whichever occurs first. This shall include: (i) a baseline against which carbon management initiatives can be measured; (ii) a timetable with targets for Carbon Management being agreed. Progress made against agreed targets and recommendation for reviewing targets where deemed necessary will be included within the Annual Operations Monitoring Report. The Carbon and Climate Change Action Plan will be reviewed every 5 years.

    REASON: To ensure that the development mitigates, and is resilient to, the effects of climate change in accordance with Policies CS1, CS2 and CS3 of the North Somerset Council Core Strategy.

Construction

37. Access to the site for construction vehicles will be by the A38. No construction vehicles will be allowed to use Downside Road, West Lane or the B3130.

    REASON: To protect the amenity of residents around the airport in accordance with Policy CS3 of the North Somerset Council Core Strategy.

38. Prior to the commencement of works on site, a final CEMP shall be submitted to and approved in writing by the Local Planning Authority for each individual component of the scheme. The final CEMP must include the following:

    (a) a waste management plan in accordance with the waste hierarchy and including the re-use of excavated material;

    (b) a pollution prevention and emergency response plan;

    (c) a water management plan;

    (d) a dust management plan and an invasive weeds management plan;

    (e) a Construction Traffic Management Plan;

    (f) a Soil Management Plan;

    (g) a Construction Ecological Management Plan.

    All construction works must be undertaken in accordance with the CEMP as approved.

    REASON: To manage the construction impacts of the development on the local environment and communities in accordance with Policy CS3 of the North Somerset Council Core Strategy.

Passenger numbers

39. The passenger throughput at Bristol Airport shall not exceed 12 million passengers in any 12-month period (to be taken from X to X in any calendar year – unless a different 12-month start and end date is agreed). [Dates to be agreed with North Somerset Council].

    REASON: To ensure that any adverse environmental, social and economic impacts that may arise from a 12 mppa capacity airport, as identified in the Environmental Statement submitted with the application, are not increased without a proper and formal process to consider any future increase in passenger numbers, in terms of the likely significant impacts and mitigation.

40. At the point when any part of the passenger terminal extension hereby granted is brought in to use, Bristol Airport shall provide the Local Planning Authority with a monitoring report to show the total passenger numbers using the airport for the preceding 6-month periods ending 30 June and 31 December each year (unless alternative dates are agreed).

    REASON: To ensure that the growth in passenger numbers can be monitored and to ensure that passenger numbers do not exceed 12 mppa.

Permitted development

41. Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 1995, or any order amending or revoking and re-enacting that Order, no development, other than that authorised by this planning permission, shall take place outside the 'Airport Operational Boundary' as shown in Drawing number [approved drawing number to be inserted] without the permission, in writing, of the Local Planning Authority.

REASON: The Local Planning Authority wish to retain control over further development on land that is outside of the 'Airport Operational Boundary' as shown in Drawing number (to be added).

Samples of materials

42. Sample panels of the exterior walling and roofing materials to be used in respect of the extensions to the passenger terminal, the new walkway /piers and the multi-storey car park 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, unless otherwise authorised in writing by the Local Planning Authority.

REASON: To ensure that the materials to be used are acceptable and in accordance with Policies CS12 of the North Somerset Council Core Strategy and Policy DM23 of the North Somerset Council Sites and Policies Plan Part 1.

Drawings

43. The development hereby granted shall be carried out in strict accordance with the following details [list of approved plans to be inserted], unless otherwise authorised in writing by the Local Planning Authority.

REASON: To ensure that the development accords with the approved details and that any subsequent changes are subject to the permission of the Local Planning Authority.

Appendix E
Local Plan 2036 Issues and Options Document - Bristol Airport Policy Options

Option 1 – Retain the existing policy.

Option 2 – Remove airport area from the Green Belt.

Option 3 – Remove airport area from the Green Belt and safeguard land for future expansion.

Option 4 – Remove airport area from the Green Belt and allocate land for expansion now and in the future.

Appendix F
Forecast Validation Report

MOTT MACDONALD

Bristol Airport - Forecast Validation

2018

Mott MacDonald
Mott MacDonald House
8-10 Sydenham Road
Croydon CR0 2EE
United Kingdom

T +44 (0)20 8774 2000
F +44 (0)20 8681 5706
mottmac.com

Bristol Airport - Forecast Validation

2018

Issue and Revision Record

Revision	Date	Originators	Checker	Approver	Description
01	19/06/2018	NR/CB	NR/KJ	JC	Forecast Validation Report - Delivered
02	20/07/2018	CB	JC	NR	Update following client comments
03	08/08/2018	CB	NR	JC	Update with QC analysis summary
04	14/08/2018	CB	NR	JC	Updated QC analysis summary
05	23/11/2018	CB	NR	JC	Updated QC seasonal QC limits
06	23/11/2018	CB	NR	JC	Final comments
06	04/12/2018	CB	NR	JC	Final report

Document reference: 399131 | A | 07

Information class: Standard

Contents

Executive summary

1. Mott MacDonald has been commissioned by Bristol Airport ("BRS") to undertake a traffic forecast and a review of the airport's management forecast. Mott MacDonald's approach to this study is to analyse the local catchment area and to generate independent econometric forecasts to validate the airport management's methodology.

2. For the purpose of this analysis, Mott MacDonald forecasted BRS traffic volumes until 2045 (the same time period as BRS Management's forecast). In addition to a base scenario (considered the most likely traffic development scenario), a low and high scenario was also developed by Mott MacDonald to provide a bandwidth of traffic volume that can be expected. The low and high scenarios differ from the base scenario with regards to expected economic growth and development of new air services.

3. BRS Management projections show growth from the 2017 figure of 8.2 million passengers to 12 million in 2026 and eventually to 19.5 million passengers in 2045. This represents an overall CAGR of 3.13%. **Mott MacDonald's analysis suggests that this projection is a realistic assessment of likely growth at Bristol Airport.**

4. Mott MacDonald's independent traffic forecast reflects positive underpinning traffic drivers which proved to be pertinent in the modelling process. The outcome of the econometric modelling reflects the potential of Bristol as an important economic region of the United Kingdom. **The econometric modelling suggests that UK GDP is an appropriate driver for traffic at BRS, hence a reliable indicator for future growth.**

5. Forecasts have been prepared for passenger movements and aircraft movements. Fuelled by a growing domestic economy and encouraging airline expansion plans, the trend of recent traffic growth at BRS is predicted to continue. Overall, Mott MacDonald and BRS Management have produced similar traffic forecasts until 2045. **Mott MacDonald's econometric analysis indicates that BRS traffic is likely to grow from 8.2 million passengers in 2017 to just over 12 mppa in 2026 and eventually to 19.8 mppa in 2045.**

6. Mott MacDonald's analysis of future night flying requirements consistent with a 12 mppa level of traffic indicate that the current limit of 4,000 annual night movements, if expressed as an annual limit with flexible use between summer and winter seasons is just sufficient to accommodate growth to 12 mppa. This assumes strict management of night movement use through an effective year-round process of slot coordination.

7. Assuming BRS adopts the latest London Airport QC rating system, these **4,000 annual night movements can be accommodated within current seasonal QC limits and seasonal flexibility**.

1 Table of Figures

2 Glossary

Table 1: Glossary

Acronym	Meaning
ATM	Aircraft Traffic Movement
BRS	Bristol Airport
BHX	Birmingham Airport
CAA	Civil Aviation Authority
CWL	Cardiff-Wales Airport
DfT	Department of Transport
EXT	Exeter Airport
GDP	Gross Domestic Product
GRDP	Gross Regional Domestic Product
GDHI	Gross Disposable Household Income
GVA	Gross Value Added
IPS	International Passenger survey
LCC	Low Cost Carrier
LHR	London Heathrow
MPPA	Million Passengers per Annum
QC	Quota Count
UK	United Kingdom

3 Introduction

8. Bristol Airport ("BRS") is a commercial airport serving the city of Bristol and the surrounding area in the Southwest of England and South Wales. BRS has one runway of 2,011m length and one passenger terminal. BRS has been experiencing rapid traffic growth in recent years – in 2017 a little over 8.2 million passengers (mppa) used the airport, up from 5.9 million five years previously, in 2012, and representing a compound annual growth rate of 6.2%[1] (for the period 2012-2017).

Figure 1: Bristol Airport Layout

Source: Google maps

9. BRS currently has planning permission for operations up to 10 mppa and has planning conditions which limit night flying during the core night period (23:30-06:00) to 4,000 movements per year (3,000 in summer, 1,000 in winter) and during the shoulder periods (23:00-23:30 and 06:00-07:00) to 10,500 movements per year.

10. A timely increase in the 10 mppa limit is necessary if growth is not to be constrained. Forecasts indicate that this limit may be exceeded by 2020 and night movements are already a constraint on growth, resulting in BRS introducing night slot controls in summer seasons from Summer 2018.

11. An interim planning application, due for submission in Autumn 2018, is being prepared to increase capacity to 12 mppa and BRS has developed in-house traffic forecasts to underpin this planning application. This report is an independent review of these BRS Management forecasts.

[1] Civil Aviation Authority passenger statistics

4 Background Information

4.1 Introduction

12. A sound traffic forecast starts with the development of a solid understanding of the catchment area that the airport serves. The potential market pool of the catchment area is determined by the socio-economic profile of the region, described by parameters such as the Gross Regional Domestic Product ("GRDP"), the number of habitants living in the airport's catchment area, and the household income per capita.

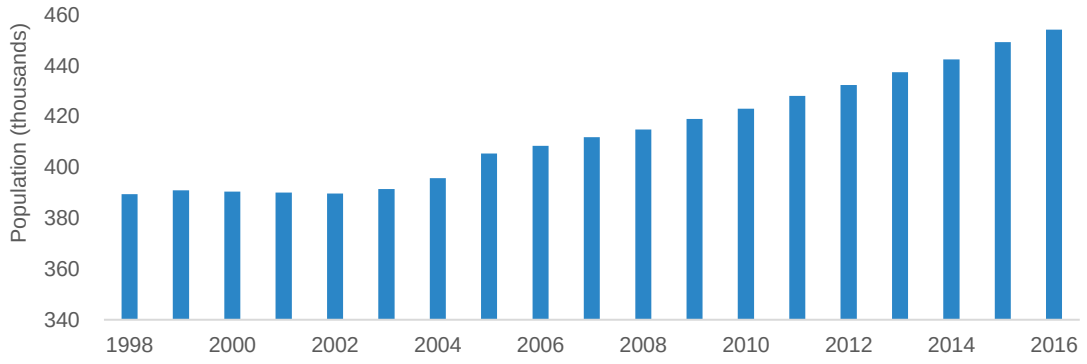
13. An examination of economic and demographic indicators of Southwest England provides evidence of a growing and comparatively wealthy market. The region's economy and income per capita have increased over the last several years and its population is also increasing.

14. In tandem with increasing economic activity, passengers, cargo, and aircraft operations in the UK and at BRS have increased, and economic indicators for both the UK and Southwest of England, are forecast to continue increasing. Therefore, it is likely that there will be increased demand for air service in the UK and the Southwest of England over the forecast horizon. This section will explore the socio-economic activities of the BRS catchment area that are likely to drive future air traffic demand.

4.2 Population

15. Bristol has a population of approximately 455,000, which makes it the largest city in the Southwest of England, and the 10th largest district by population in the UK[2]. After a decline in the post war years, Bristol's population stabilised during the 1990s and has grown strongly since the mid-2000s which is attributed to a significant increase in net migration[3]. According to the Office of National Statistics, population growth has been particularly concentrated in central areas of Bristol and this may be, in part, due to growing numbers of full-time students as reported by the University of Bristol and the University of the West of England[4].

Figure 2: The city of Bristol population 1998-2016



[2] Office of National Statistics

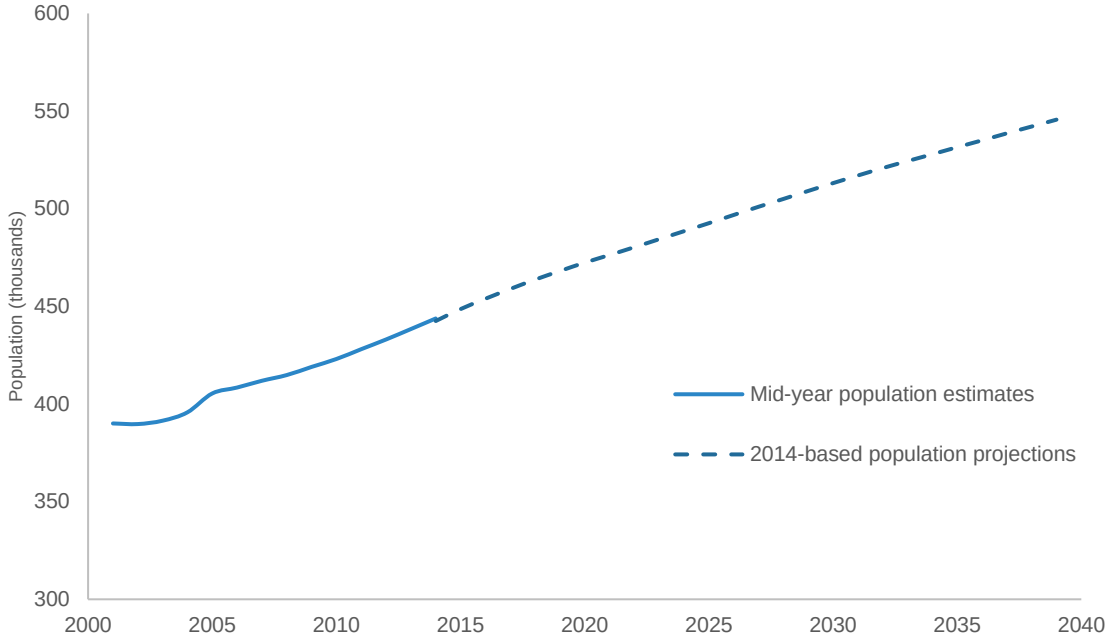
[3] Bristol.gov.uk, Population of Bristol, April 2018

[4] Bristol.gov.uk, Population of Bristol, April 2018

Source: Office of National Statistics

16. The size of the population, as well as the demographics and individual wealth, determine the potential pool of travellers. The larger the amount of people residing in the catchment area of the airport, the larger the potential demand that could be captured. In 2014, the Office of National Statistics produced population estimates for Bristol, which expect its population to reach 545,600 by 2039. This is a projected increase of 23.3%, which is higher than the projection for England as a whole of 16.5%:

Figure 3: Bristol mid-year population estimates and predictions



Source: Office of National Statistics, 2014

17. The population of Southwest England was estimated to be over 5.5 million in 2016, with the largest regions, along with Bristol, being Devon, Gloucestershire, Cornwall, Somerset and Wiltshire and this is detailed in Table 2[5].

Table 2: Population of all counties and unitary districts in Southwest England

Name	Population
Bath and North-East Somerset	187,751
Bournemouth	197,657
Bristol (City of)	454,213
Cornwall	553,687
Devon	779,834
Dorset	422,727
Gloucestershire	623,129
Isles of Scilly	2,308
North Somerset	211,681
Plymouth	264,199
Poole	151,500

[5] Office of National Statistics

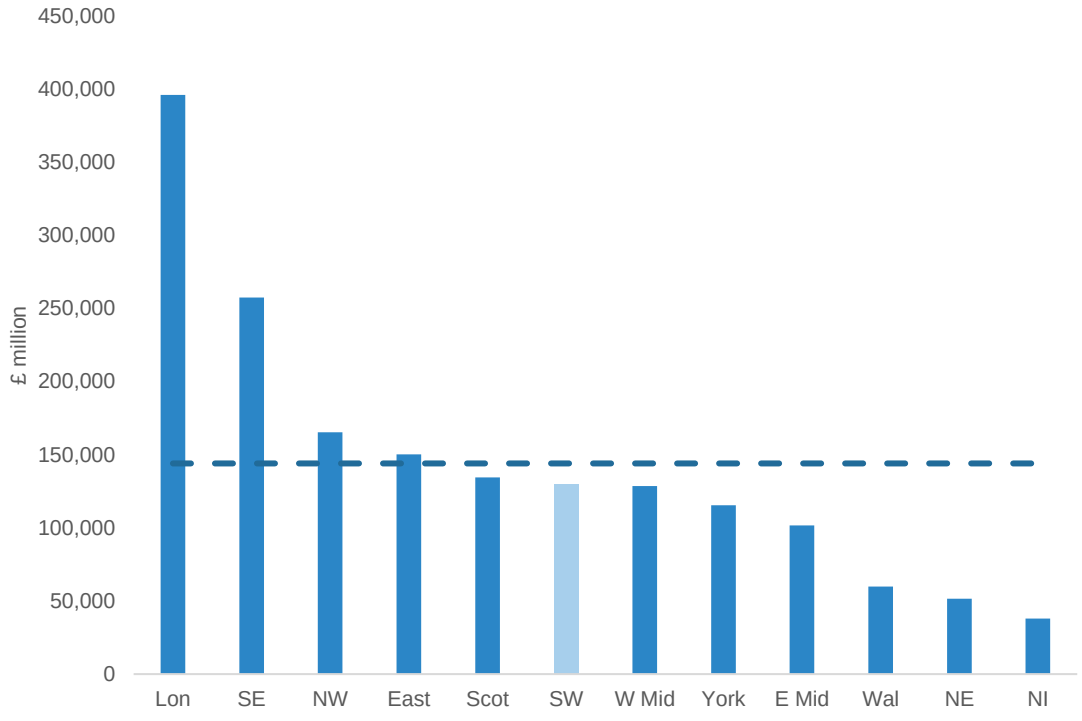
Name	Population
Somerset	549,447
South Gloucestershire	277,623
Swindon	217,905
Torbay	133,883
Wiltshire	488,409
Southwest England	**5,515,953**

Source: Office of National Statistics

4.3 Economy

18. Economic growth is generally a primary driver of air traffic demand. It is often closely related to historical growth of air traffic and so provides a good indicator as to future air traffic growth. Gross Value Added ("GVA") is a measure of the value of goods and services produced in a region and Figure 4 shows the GVA across UK regions for the year 2017. The Southwest of England has an average GVA which is a little below the UK average, although its growth rate has tracked closely to that of the UK as shown in Figure 5 below. In the Southwest region, Bristol is one of the most economically productive areas, contributing a quarter of local economy, along with south-east Dorset and the M4 corridor. These areas have the best links with London. The areas around Bristol, Somerset, Gloucestershire and Wilshire combined contribute another quarter.

Figure 4: United Kingdom Region's Gross Value Added (GVA) by region



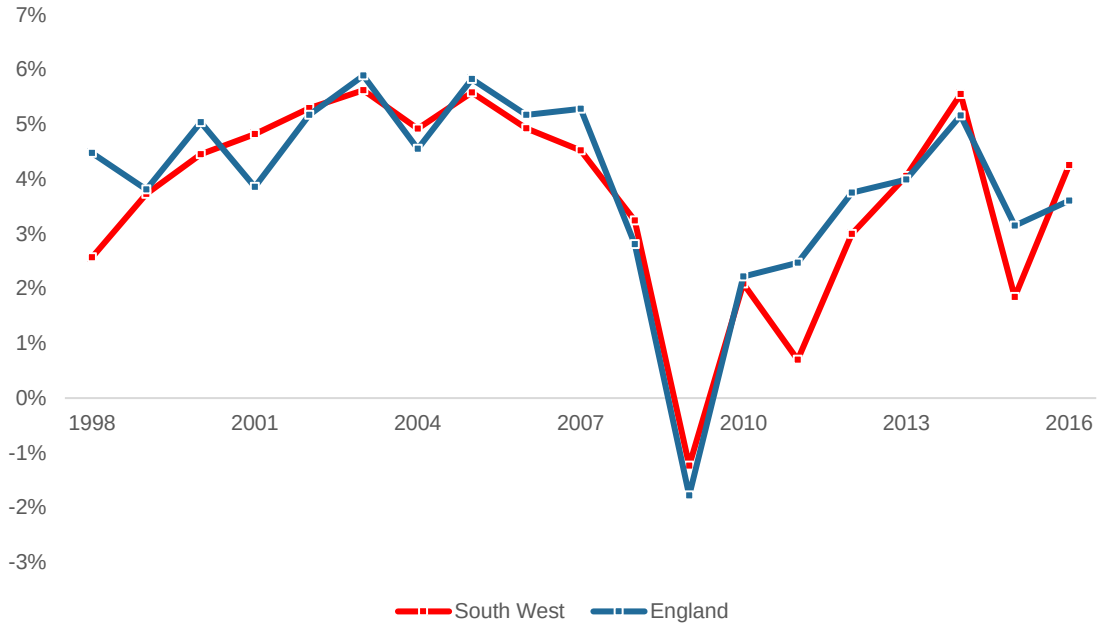
Source: House of Commons[6]

[6] These income approach tables are part of the regional gross value added (balanced) release published on 20 December 2017.

19. According to the Economic Development Division of Bristol City Council, that by 2015, Bristol's GVA was only 3.5% below the level that would have been expected had the 2008 recession not occurred and the economy had continued expanding at the trend rate for the period 2002 to 2007[7].

20. An important catchment area for BRS is the Southeast Wales area which encompasses the major areas of Cardiff and the Vale of Glamorgan as well as Monmouthshire and Newport. In 2016 the GVA per head for the whole Southeast Wales area was £23,718 which is higher than the average for Wales of £19,200. The overall GVA for the area increased by 5.3% in 2016 average of 4.1% for Wales. The per capita income of Southeast Wales is similar to Southwest England (£25,548 per capita), but lower than the Bristol area (£27,156 per capita)[8].

Figure 5: Comparison of Real GVA growth rates – Southwest England v England total



Source: House of Commons[9]

21. Bristol has a long history of trading commodities as it has long been a major seaport. Major imports currently include motor vehicles (of which Bristol is the largest importer to the UK), grain and petroleum products. Aside from its nautical connections, Bristol's economy centres on the aerospace industry, defence, the media, tourism, IT and financial service sectors. A major segment of the local economy is the aerospace industry, whose main companies are BAE Systems, Airbus and Rolls-Royce, all based at Filton[10]. The construction of Hinkley Point C is also expected to add substantially to the Bristol economy. EDF Energy expects that over its construction and operation period, Hinkley

[7] Bristol City Council

[8] Office of National Statistics 2016

[9] These income approach tables are part of the regional gross value added (balanced) release published on 20 December 2017.

[10] Bristol.org.uk, economy

Point C will create 25,000 employment opportunities[11] and these will further strengthen Bristol's growing economy.

22. According to the Oxford Economics local authority district forecasting model, Bristol is set to be one of the UK's fastest-growing cities over the next three years, outpacing London and Birmingham[12]. With GVA growth of 2.3% predicted (well above the national average of 1.8%) the city will be only slightly behind the growth rate of the top two cities of Reading and Manchester, both of which are forecast to grow by 2.4% over the period. The predicted success of Bristol's economy is due to its make-up, containing high growth sectors such as information and communications and professional services.

4.4 Education, workforce and investment climate

23. Companies which are established in Bristol include Airbus UK, Rolls Royce, Dyson, Aardman Animations, BBC, Royal Bank of Scotland, Halifax Bank of Scotland, AXA, Toshiba Research Europe, Lloyds Banking Group, Bank of Ireland, Orange, Hewlett Packard and Garrad Hassan. Bristol's economy and effective communication links offer the prospect of a high standard of living, attract skilled workers and major businesses and help to form a strong foundation for future growth and development.

24. Recent research carried out by Business West as part of the British Chambers of Commerce, indicate that the sectors forecast to show the greatest cumulative growth in Bristol are finance and insurance services and construction, both of which are set to outperform the national average. Significant growth is also expected in the professional and other private services, and information and communication services, over the next five years, at 15% and 14% respectively.

25. Public services are expected to have the lowest cumulative growth rate over the five-year period at 4%. So overall, there will be a rebalancing of the economy away from the public sector towards the professional services and information sectors.

26. Bristol City Council outlines investment opportunities in the city such as regeneration and infrastructure works to make the Western Harbour area a desirable residential development, regeneration of the Temple Quarter City District and the development of a Bristol Metro[13]. Reasons to invest in the area more generally include the population size, transport links with London and other UK regions, and upgrading the region's deep-sea port[14].

4.5 Individual wealth

27. The regional GVA per capita of Southwest England, according to the Office of National Statistics is £23,548[15], which is 11% below the UK average. However, it varies significantly around the region, from well below average in Cornwall (£18,231), Devon (£20,661) and Dorset/Somerset (£21,641), but above the UK average in the Bristol/Bath/Gloucestershire/Wiltshire region closest to Bristol Airport (£27,156). These intra-regional differences are often greater than inter-regional ones, with businesses in

[11] EDF Energy, Nuclear new build projects, Hinkley Point C

[12] EY 2017 Study published on Bristol Business News

[13] Bristol.gov.uk, Bristol Investment brochure

[14] Bristol.gov.uk, Bristol Investment brochure

[15] Office of National Statistics 2016

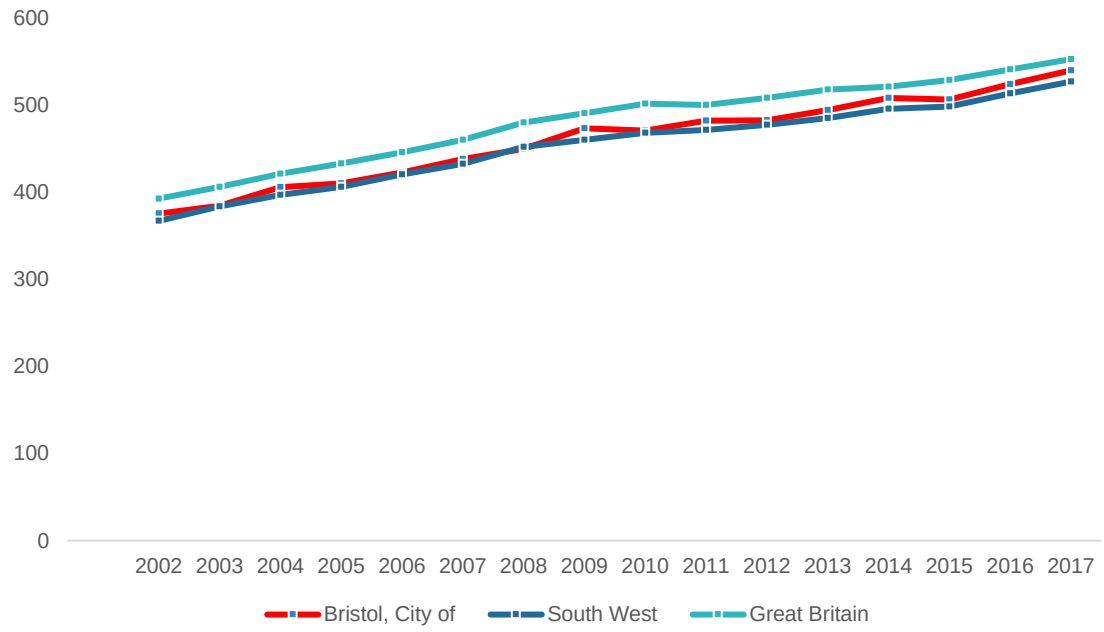
the north and east of the region more heavily influenced by the competitive pressures of the South East and West Midlands than the southern and western counties.

28. According to a report by the European Commission[16], the imbalance in Southwest England is reflected in the various economic sectors within the region, with the southern and western counties more focussed on rural activities and tourism while the northern and eastern counties have more mixed economies which include high-technology manufacturing (e.g. aerospace, defence, electronics) and knowledge-based industries (digital media, semi-conductor design, financial services).

29. Southwest England has a lower unemployment rate at 3.5% than the UK average at 4.2%[17]. As with many UK regions, the Southwest region has experienced a shift in the balance of economic activity with a decline in the manufacturing share of GVA and an increase in the contribution of services.

30. With Bristol being the largest city, as well as the trade and business centre for Southwest England, it is unsurprising that wealth and prosperity is concentrated here. Figure 6 shows average gross weekly pay for full-time workers in Great Britain, the Southwest of England and in the city of Bristol. Average pay in Bristol has become closer to the Great Britain average in recent years and has trended above Southwest England overall.

Figure 6: Average gross weekly pay for full time workers



Source: Office for National Statistics

4.6 Tourism

31. Tourism is an important component of the Bristol economy. The tourism industry is worth more than £1.3bn to Bristol and employment in the sector is estimated at almost 29,000

[16] Regional Innovation Monitor Plus – European Commission

[17] Office of National Statistics, unemployment rates by season January-March 2018

jobs[18]. Bristol receives 9 million visitors each year and it is one of the UK's most popular tourist destinations[19]. Attractions within Bristol and the surrounding region include the Museum of Bristol, Bristol Cathedral, the Clifton Suspension Bridge and Bath, as well as rural areas of Somerset and the Cotswolds[20]. According to the International Passenger Survey ("IPS"), Bristol received 570,000 international visitors in 2016 which made it the eighth most visited town or city by international visitors to the UK. Top visitor markets were from Europe (Germany, Spain, Poland and France particularly) but there were also visitors from further afield countries such as the USA and Australia[21].

32. The World Heritage City of Bath lies within the BRS catchment area and is linked to Bristol via several A-roads as well as by a 10-minute train ride and convenient bus routes. Although its population is under half that of Bristol, Bath is important to the local economy due to the tourism industry. Nearly 5 million visitors come to Bath every year with increasing numbers of international visitors[22].

4.7 Surface access

33. The BRS catchment area contains multiple roads which connect Bristol to three motorways in the region (the M4, the M5 and the M32). The M32 provides an important link to the M4, which in turn provides links to London (eastbound) and South Wales (westbound). The M5 is also within easy reach of Bristol, which provides links to Birmingham (northbound) and Exeter (southbound). Bristol has several train stations, the two biggest being Bristol Temple Meads and Bristol Parkway. Through these two train stations, Bristol's links with the surrounding area are strengthened; Cardiff is less than an hour away and London Paddington can be reached in 1h40min. Figure 7 shows the area which falls within a 90 minutes driving time of Bristol, as well as showing a 25-mile radius around the city:

[18] visitbristol.co.uk, About the visitor economy

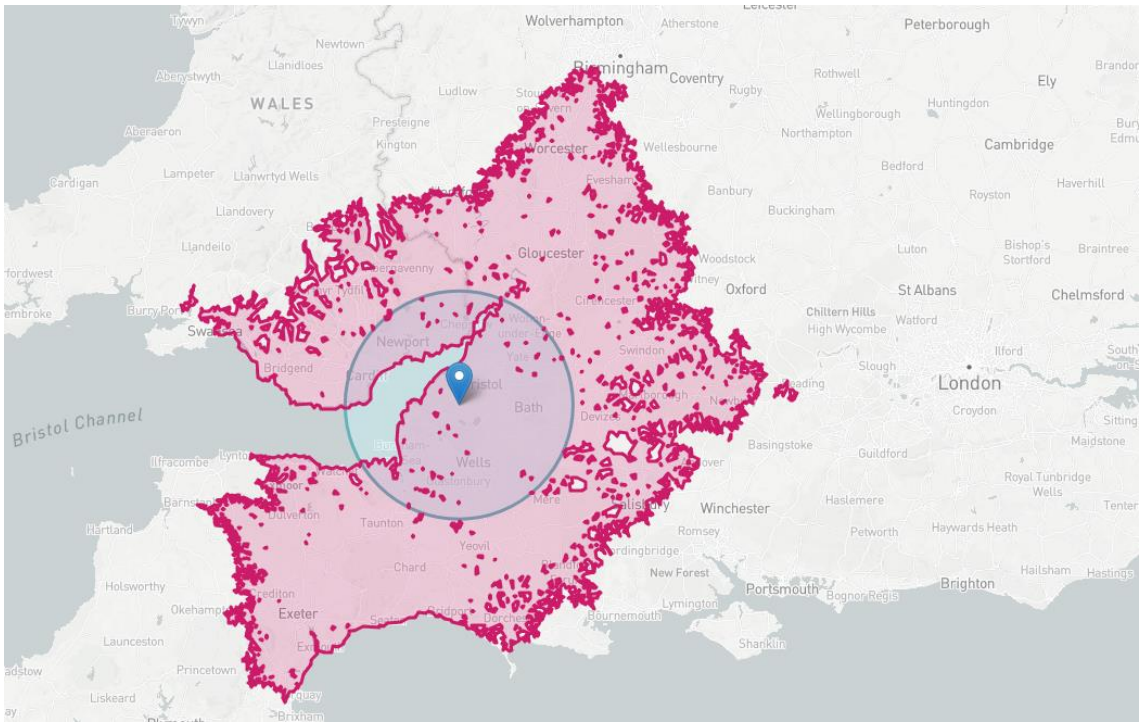
[19] bristol.org.uk/industry

[20] visitbristol.co.uk, About the visitor economy

[21] visitbristol.co.uk, About the visitor economy

[22] Bath and North-East Somerset Council, Tourism and the Visitor Economy

Figure 7: 25-mile radius of Bristol and the area reachable by driving 90 minutes



Source: Travel Time Platform

4.8 Competing airports

34. Figure 8 shows the location of competing airports relative to BRS. The two airports that are geographically closest to BRS are Cardiff-Wales ("CWL") and Exeter ("EXT") which are 60 and 68 miles by road from BRS respectively and can be reached inside an hour and a half[23]. However, two more distant airports can also be reached in approximately two hours via straightforward motorway links, Birmingham and the UK's busiest, London Heathrow ("LHR"). In this section we will discuss each of these airports and the extent to which they may affect traffic at BRS.

[23] RAC route planner, accessed May 2018

Figure 8: Location of Bristol and its competing airports

Source: Google Maps

35. Heathrow ("LHR") handled 78 million passengers in 2017[24] (around 58 million terminating and 20 million transfer passengers) and, according to CAA survey data, nearly 4 mppa of all terminating passengers at the airport had an origin or destination in the Southwest of England[25]. LHR offers a wide range of destinations as well as high frequencies on many short-haul and long-haul routes, which makes it an attractive airport to fly from and it can be reached via the M4 motorway from the BRS region in approximately two hours. However, LHR is operating close to its capacity of 480,000 ATMs per year which in turn means that it is more likely that traffic will 'spill over' to other UK airports. In June 2018, ministers signed off plans for a third runway to be constructed at the airport[26]. While the addition of a third runway at LHR may attract some services away from UK regional airports, such as BRS, the runway is unlikely to be operational before 2026. It is also likely that capacity will remain at a premium at LHR even with a third runway, which is likely to encourage airlines to continue developing services at other UK airports, especially on shorter-haul and leisure-focussed routes.

36. Furthermore, LGW offers those living in the Southwest of England an airport with a well-developed route network and easily accessible via surface transport. LGW has a strong LCC profile with many leisure routes, whereas LHR is caters more for long-haul destinations. The below table shows the share of passengers derived from the Southwest

[24] Heathrow.com

[25] CAA passenger survey 2017

[26] BBC news, Heathrow Airport: Cabinet approves new runway plan, 5 June 2018

using London airports, with the total passengers within the BRS catchment area using London airports totalling around 7 million passengers in 2017.

Table 3: Origin/destination of terminating scheduled passengers

	Gatwick	Heathrow	Luton	Stansted
% Share	5.1%	6.8%	2.1%	1.9%
Airport 2017 Traffic (mppa)	45.6	78.1*	15.8	24.3
South West Traffic (mppa)	2.3	4.0	0.3	0.5

Source: CAA 2017 Passenger survey

(*) Of LHR's total 78m passengers, around 58m were terminating passengers with the balance on connecting flights

37. Birmingham ("BHX") handled almost 13 million passengers in 2017 and it is one of the busiest UK airports outside the London area. It is a base for Flybe, Ryanair, Thomas Cook and TUI and easyJet operates a limited route network from the airport[27]. The CAA 2017 passenger survey indicated that nearly 4% of BHX's terminating passengers had an origin or destination in the Southwest of England, which indicates that it provides more limited competition for the region's traffic than LHR, despite it being able to be reached in less time than LHR (1 hour and 48 minutes compared to just over 2 hours)[28] and this is likely due to the more limited range of destinations served from BHX relative to LHR. In addition, the drive-time to BHX from the BRS area is comparatively long which might also limit the airport's attractiveness from the region, especially given the range of routes available at BRS.

38. Cardiff-Wales ("CWL") is the closest airport to BRS and therefore arguably one of the more likely to provide direct competition to BRS. It is owned by the Welsh Government and handled 1.5 million passengers in 2017, which makes it considerably smaller than BRS at 8.2 million[29] and its traffic is primarily leisure travellers, with sports related travel prominent in the leisure mix (Wales hosts large sporting events at venues such as the Millennium Stadium)[30]. CWL has a longer runway than BRS (2,392m v 2,011m)[31] which may enable it to handle larger aircraft on longer-haul services - Qatar Airways, for example, has begun serving the airport - and it is closer to many of Wales' population centres.

39. However recent financial results at CWL have been poor (a pre-tax loss of £5.97 million was recorded for the 2016-17 financial year and this followed a pre-tax loss of £4.9 million the year before)[32]. In addition, traffic growth at CWL has been weak in recent years; the airport handled a little over 2 million passengers at its peak in 2007, but this figure has yet to be matched since[33]. The Welsh Government has made loans of £10 million to improve the terminal and £13 million for route development and it is hoped that passenger numbers may climb once more[34], although the airport has a long way to go before it reaches numbers approaching those of BRS.

[27] Centre for Aviation (CAPA)

[28] RAC route planner

[29] CAA passenger statistics

[30] Centre for Aviation (CAPA)

[31] Centre for Aviation (CAPA)

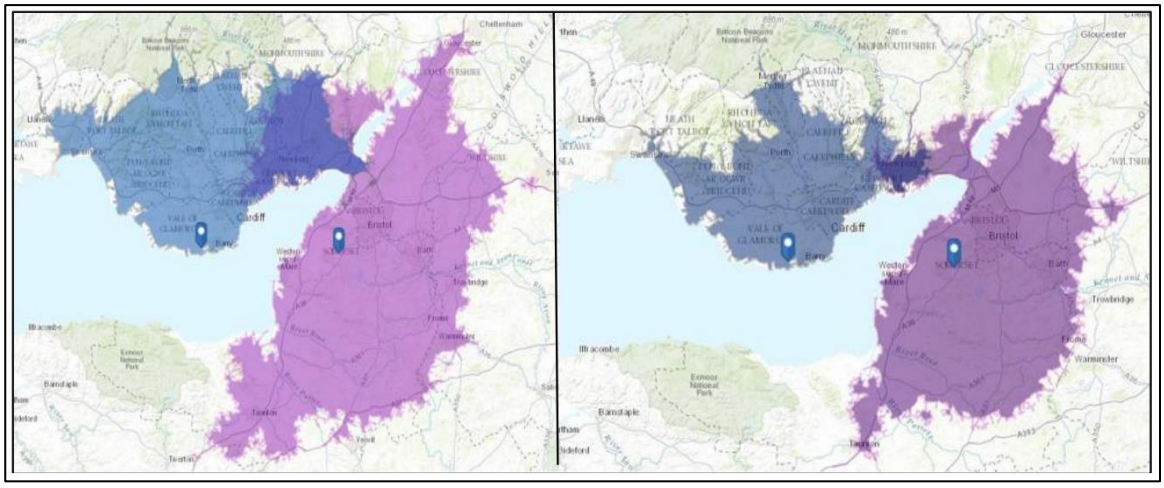
[32] BBC News Wales, "Cardiff Airport government cash 'could be recouped' by 2021", 26 April 2018

[33] CAA passenger statistics

[34] BBC News Wales, "Cardiff Airport government cash 'could be recouped' by 2021", 26 April 2018

40. Furthermore, a publication by Northpoint on behalf of the Welsh Government in June 2017, suggested that CWL has a largely distinct catchment area from BRS[35]. Two figures were included in the report (as shown in Figure 9) which show the 60-minute off-peak drive time (left) and 60-minute peak period drive time catchment areas of the two airports:

Figure 9: Catchment areas of BRS and CWL – 60 min Off-Peak and Peak Driving Times



Source: Northpoint Aviation, Travel and Tourism Consultants, "Devolution of Air Passenger Duty to Wales", June 2017, p18-19

41. It would appear from these charts that the extent to which CWL should be considered a rival for the same catchment area as BRS may be limited and that BRS is likely to continue benefiting from economic and tourism growth in its immediate region.

42. Exeter (EXT), 68 miles away and operated by Regional and City Airports Ltd, is a base for Flybe and TUI. It handled approximately 900,000 passengers in 2017[36], so smaller still relative to BRS, and its traffic is largely outbound leisure. Most traffic heads to holiday destinations across Europe and the Mediterranean (and much of this during the summer months), while Flybe provides year-round services to a relatively limited number of destinations in the UK and Europe. The last CAA passenger survey conducted at EXT (2012) reported that the majority of its passengers are from Devon which appears to suggest that EXT is used predominantly by local residents; less than 0.5% of its passengers were reported as travelling to or from the city of Bristol or north-east Somerset.[37]

43. Figure 10 compares passenger traffic growth at BRS relative to BHX, CWL and EXT for the period 1997-2017. As already discussed, BRS handles considerably more passengers than its closest neighbours, CWL and EXT, but it has also enjoyed stronger traffic growth in recent years; for the period 1997-2017, BRS traffic grew at a CAGR of 8.6% (compared to 1.4% for CWL and 7.6% for EXT), but between 2010-2017, BRS grew at a CAGR of 5.3% while CWL and EXT experienced growth of 0.7% and 3.0% respectively. BHX traffic growth has been comparable to that of BRS (6.1% per annum

[35] Northpoint Aviation, "Devolution of Air Passenger Duty to Wales", June 2017

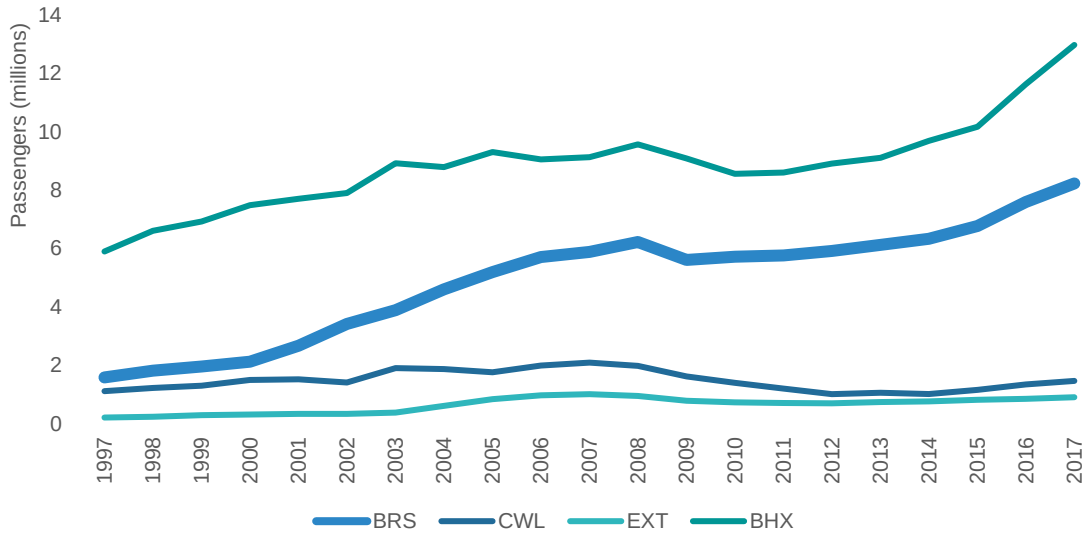
[36] CAA passenger statistics

[37] CAA passenger survey, 2012

between 2010-2017), although as shown by the CAA passenger survey data, this airport attracts relatively few passengers from the Southwest of England.

44. BRS also serves more destinations that either CWL or EXT (over 100 compared to approximately 50 and 30 respectively)[38] and, with capacity likely to remain an issue at LHR and BHX attracting relatively few passengers from the region, it appears BRS is in a strong position to remain Southwest England's main airport in the coming years.

Figure 10: Passenger traffic at BRS and competing airports 1997-2017



Source: CAA passenger statistics

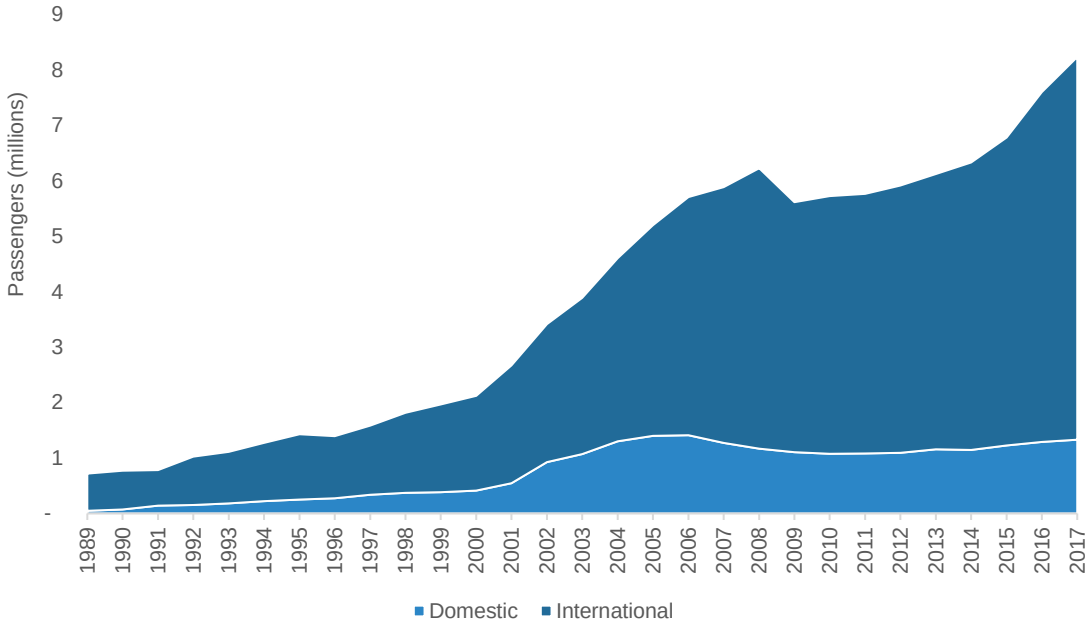
[38] SRS Schedules Analyser, accessed May 2018

5 Bristol Air Transport Market

5.1 Overview of BRS historic traffic

45. During 2017 BRS handled a little over 8.2 million passengers, which made it the ninth busiest UK airport and the fifth busiest outside the London area, after Manchester, Edinburgh, Birmingham and Glasgow[39]. In the years since the Global Financial Crisis, passenger traffic has grown by an average of 5% per annum (2009-2017) but has grown at over 10% per annum during the last two years (2015-2017). The below figure shows the development of passenger traffic at BRS between 1989 and 2017:

Figure 11: Bristol Airport Passenger Traffic 1989-2017



Source: Civil Aviation Authority statistics, tables 10-1 and 10-2

46. After experiencing steady growth during the 1990s, traffic at BRS accelerated markedly during the 2000s and this was largely due to the growth of low cost services. In May 2001, British Airways' low-cost carrier, Go, began operations at the airport with a service to Nice and by summer 2002 Go's BRS operations had grown to ten destinations and 18 daily departures[40]. During summer 2002 Go was acquired by easyJet but the BRS route network continued to expand rapidly; by summer 2007, easyJet was serving over 30 destinations from the airport[41].

47. Traffic has grown year on year since 2009 and in the last two years it has grown markedly as easyJet have launched new routes and based further aircraft at the airport. easyJet

[39] Civil Aviation Authority passenger statistics, calendar year 2017

[40] Anna Aero, 2007

[41] Anna Aero, 2007

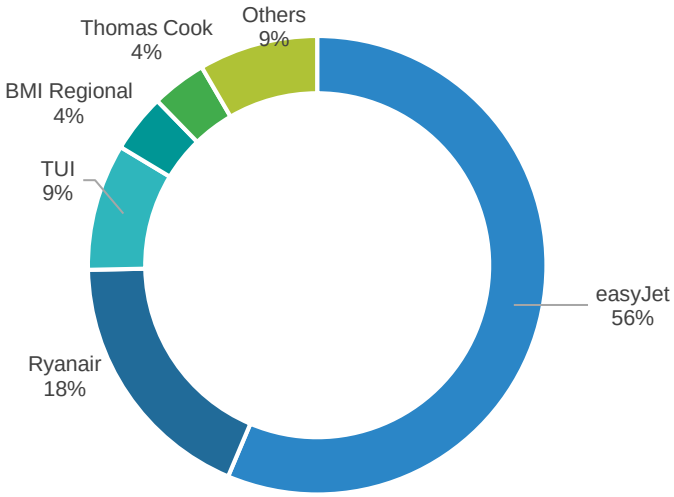
continues to add new routes at BRS (Genoa and Seville were added in 2018)[42] and Ali Gayward, easyJet's UK Country Manager, stated that easyJet is 'excited to continue to grow and expand in Bristol'[43]. With over 100 A320neo and 30 A321neo aircraft on order[44], it is likely that easyJet will be seeking further opportunities for growth in the coming years. This will be assisted by increasing capacity constraints at London airports at least until the opening of a new runway at LHR from around 2027.

48. The majority of BRS passengers are travelling internationally (over 80% during 2017) and this is a continuation of historical trends observed at the airport over the last 30 years. Apart from the period 2001-2007, which coincided with rapid easyJet growth, international traffic has accounted for over 80% of the total since 1999. In recent years, international traffic has grown at an average of 5.5% per annum (2009-2017) compared to 2.3% for domestic.

5.2 Airline activity

49. easyJet is the largest carrier at BRS in terms of departing scheduled seat capacity. As shown in Figure 12, this airline accounts for over half of the departing scheduled seat capacity:

Figure 12: BRS departing scheduled seat capacity by airline, calendar year 2018



Source: SRS Schedules Analyser, accessed May 2018

50. easyJet provides services to over 60 destinations across Europe and the UK from BRS, which is its largest UK base outside the London area (13 aircraft were based at the airport as at November 2017)[45]. The pattern of easyJet growth at BRS looks set to continue as the airline has added further routes during 2018.

[42] Bristol Airport news releases, 2018
[43] Bristol Airport news releases, 2018
[44] Centre for Aviation (CAPA)
[45] Bristol Airport news releases, 2017

51. Ryanair, the second largest carrier in terms of scheduled departing seat capacity, flies to over 30 European destinations from BRS. However, it competes directly with easyJet on only 10 of these (Alicante, Faro, Gran Canaria, Ibiza, Krakow, Lanzarote, Malaga, Palma de Mallorca, Tenerife and Venice)[46]. These routes are all popular holiday destinations so demand can therefore likely support services from both airlines. Aside from these routes, in general Ryanair focuses more on eastern European services (serving destinations such as Bucharest, Budapest, Gdansk and Kaunas) and services to its Dublin hub, whereas easyJet focuses more heavily on western Europe (the UK, Spain, France and Italy form the largest shares of easyJet outbound capacity)[47].

52. TUI Airways bases three aircraft at BRS[48]. While it flies primarily to holiday destinations in Europe (Spain and Greece forming its largest share of scheduled departing capacity), it also offers long-haul services to destinations such as Cape Verde, Mexico and Orlando-Sanford in the USA. For these routes, TUI flies Boeing 787-8 and 787-9, aircraft which is the largest type currently scheduled to fly from BRS[49].

53. Other operators serving the airport include BMI Regional, which has an operating base at BRS and flies to several European destinations (the majority of which are in Germany), as well as Aberdeen in the UK, Thomas Cook, which serves leisure destinations predominantly within Spain, Greece and Turkey, and KLM which serves its hub at Amsterdam Schiphol[50].

5.3 Route analysis

54. Figure 13 shows the departing scheduled capacity from BRS by region. Most of the route network is to Western European destinations (Spain, France, Italy and Ireland being the top four countries), while domestic services are predominantly to airports in Scotland, Northern Ireland and the Channel Islands. Other Europe comprises Eastern Europe (e.g. Poland, Hungary, Czech Republic) and Turkey, while Rest of World comprises the long-haul Cape Verde, Mexico, Caribbean and Orlando-Sanford services.

[46] Mott MacDonald analysis of SRS Schedules Analyser data, accessed May 2018

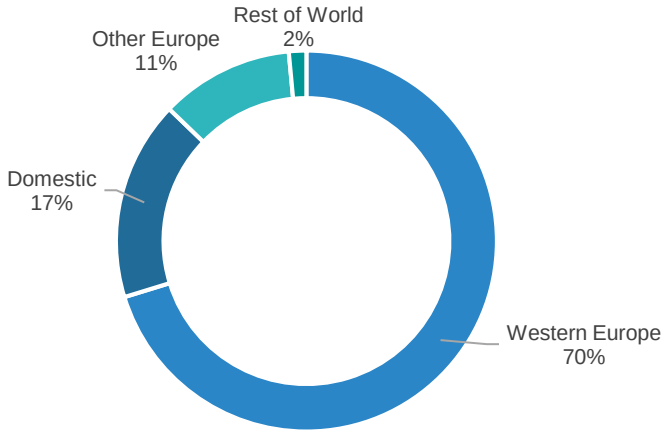
[47] Mott MacDonald analysis of SRS Schedules Analyser data, accessed May 2018

[48] Routes online.com

[49] Mott MacDonald analysis of SRS Schedules Analyser data, accessed May 2018

[50] Mott MacDonald analysis of SRS Schedules Analyser data, accessed May 2018

Figure 13: BRS departing scheduled seat capacity by region, calendar year 2018



Source: SRS Schedules Analyser, accessed May 2018

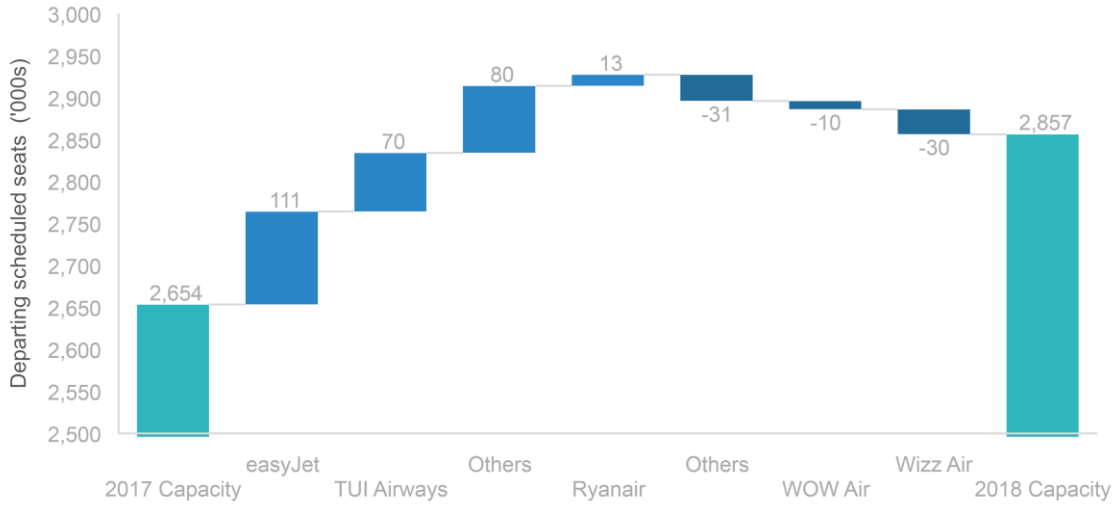
55. Most passengers using BRS are UK residents travelling for leisure purposes[51] and these passengers are well-served from the airport, with an array of popular holiday destinations on offer. Analysis of Sabre Airline Solution's Market Intelligence database indicated that just 3% of passengers using BRS were traveling onwards via a connecting airport[52], which is indicative of a largely outbound leisure market where passengers are mainly flying on holiday directly to their destination and then returning. An absentee in the BRS route network is New York, which welcomes more international visitors from the UK than any other country[53] and is one of the most visited long-haul destinations. Newark was previously served from BRS by Continental Airlines between 2005 and 2010[54] but currently no airline serves the New York area directly. With BRS experiencing growing passenger demand, there may be an opportunity for a carrier to explore the possibility of re-instating this route.

5.4 Capacity

56. Figure 14 shows the variations by airline in departing scheduled seat capacity from BRS between April-October 2017 and 2018. Overall, April-October 2018 seat capacity is showing 7.6% over 2017. The largest contributors to the increase are easyJet, which has introduced new routes, and TUI, which has added routes such as Antalya and Bodrum as well as increasing capacity on others, such as Palma de Mallorca and Tenerife. Airlines which have decreased capacity are WOW Air, which has ceased serving BRS and Wizz Air, which has dropped its routes to Kosice, Sofia and Warsaw[55]. It should be noted the Winter 2018/19 schedule is still subject to further adjustment following the IATA Slot Conference in June 2018, therefore, data between April and October was compared only[56].

[51] CAA 2015 passenger survey, Table 2.2
[52] Mott MacDonald analysis of MIDT Sabre
[53] Crainsnewyork.com
[54] Anna Aero 2007
[55] SRS Schedules Analyser, accessed May 2018
[56] IATA.org, 142nd Slot Conference

Figure 14: BRS Scheduled Departing Seat Capacity April – October 2018 v 2017

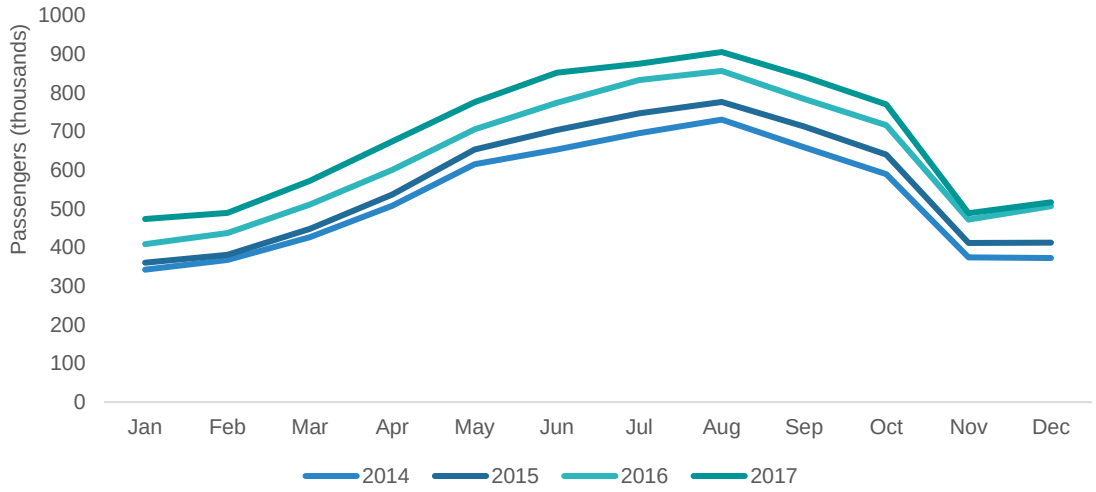


Source: SRS Schedules Analyser, accessed May 2018

5.5 Seasonality

57. BRS experiences its greatest passenger flows during the summer season (April-October), as illustrated by Figure 15:

Figure 15: BRS passenger throughput by month 2014-2017



Source: Civil Aviation Authority monthly statistics

58. Over the previous four years approximately 70% of the passenger throughput at BRS has occurred between April and October, although this share has dropped marginally over the last three years (from 70.3% in 2015 to 69.1% in 2017). In forthcoming years BRS is likely to continue exploring ways in which traffic can be grown in the shoulder seasons and therefore make best use of its facilities.

6 Independent Forecast Validation

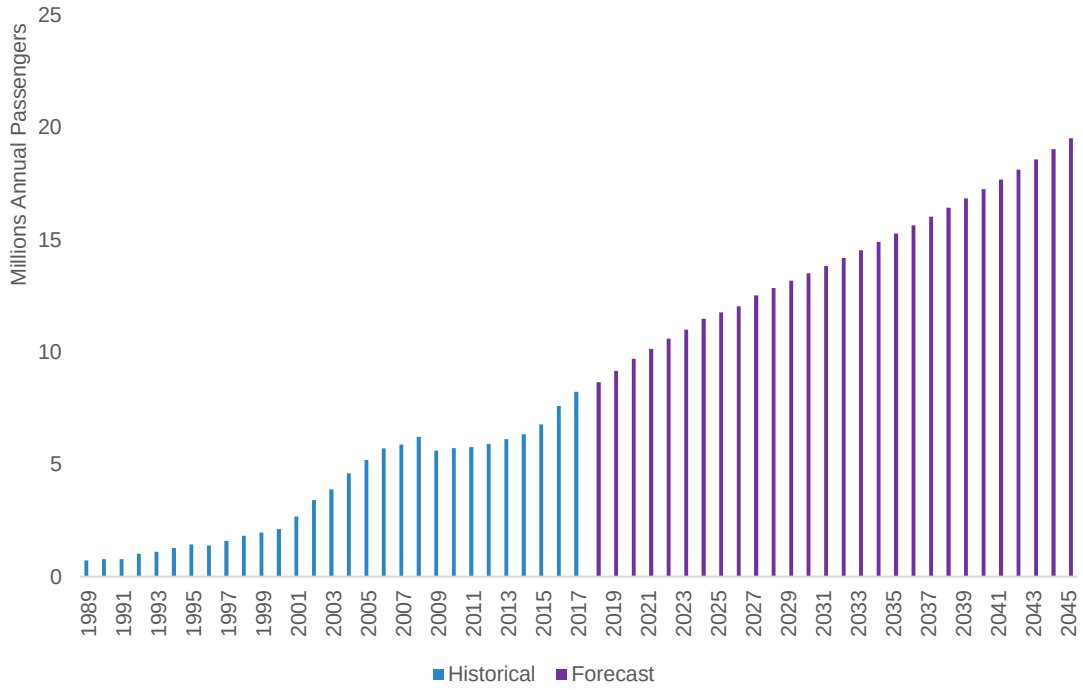
6.1 Bristol Airport Management forecast review

59. BRS Management have performed a forecast study of expected growth of passenger traffic. This forecast blended a top-down econometric model with a bottom-up, airline by airline, approach. For the period until 2027 BRS Management have forecast the supply of seat capacity, load factors and based aircraft. This bottom-up approach makes informed assumptions regarding the level of air service that can be expected over the planning period.

60. Mott MacDonald consulted the main BRS airline operators as part of this forecast validation project. The airline feedback broadly validated the BRS Management assumptions. In Mott MacDonald's view, the BRS Management short-term assumptions are reasonable.

61. Following the short-term developments, BRS Management have assumed a GDP elasticity of approximately 1.3 for the long-term. Therefore, this indicates that with each 1% increase in UK GDP results in a 1.3% increase in traffic from BRS. The BRS Management forecast results are presented in Figure 16:

Figure 16: Bristol Airport Management Passenger Forecast

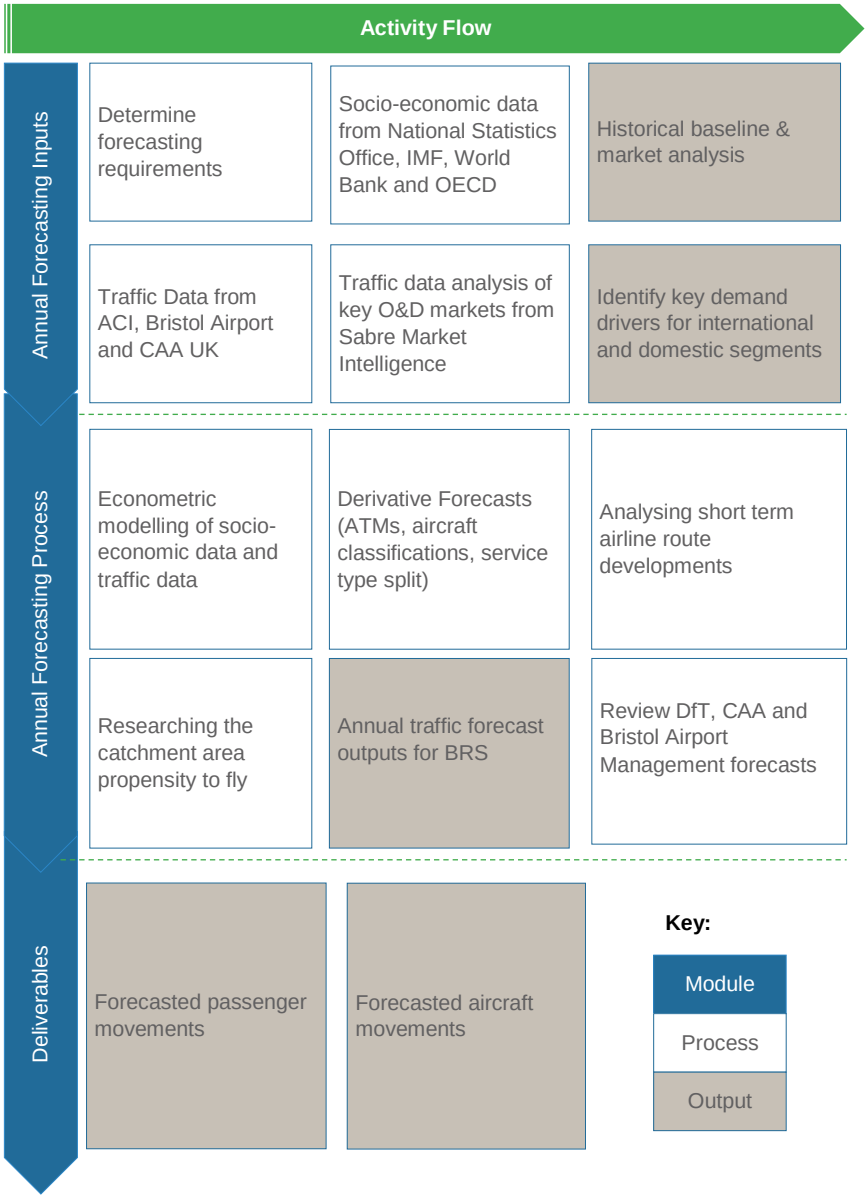


Source: BRS Management

6.2 Mott MacDonald traffic forecast methodology

62. Air travel is a derived demand. Demand for air transportation between origin and destination markets is derived from the socio-economic interactions between these markets, shaped by carriers' networks and available aircraft capacity. Generally, business/trade activity and tourism/visitor activity constitute the primary components of air travel at an airport. Dependable forecasting practice requires awareness of the uncertainties surrounding the forecasts. As discussed earlier, the Mott MacDonald team has investigated the key factors likely to affect traffic activity at BRS. However, as with any forecasts, there are uncertainties regarding these factors, such as the outlook for the local and world economies and the structure of the airline industry. A pragmatic and yet systematic approach has been used to produce a set of air travel demand forecasts for BRS. The following sections describe the methodology used by Mott MacDonald to forecast air traffic at BRS.

6.2.1 BRS Traffic Forecast Methodology Flowchart



6.2.2 Key Assumptions

The main assumptions underpinning the Mott MacDonald baseline scenario include:

No capacity constraint

63. The forecast assumes that no capacity issue in any component of the system will restrict the evolution of traffic. The term ‘component of the system’ refers to any element that is crucial for the capacity of an airport from its access, landside infrastructure, and terminal building to its runway and taxiway system.

No new airport in the Southwest England region

64. The forecast assumes that there will be no new airport or any material changes to any existing airport in the Southwest of England, or the UK, during the forecast period, excluding for the planned Heathrow expansion assumption described below.

Regained Southwest traffic

65. The total spill-over traffic of Southwest residents using London airports in 2017 was around 7 million passengers (as calculated in Table 3), mostly using Heathrow and Gatwick. Increasing capacity constraints at both of these London airports, up to the opening of a third Heathrow runway, are expected to help BRS capture a greater share of this Southwest resident traffic (up to 10% of spilt traffic), as well as attract airlines to base aircraft at BRS when London slots are scarce. Following the opening of a new runway in London, increased London competition is expected to result in Bristol Airport's share of the Southwest market returning to current levels.

Heathrow Expansion

66. For the base case, it is assumed that third runway will be operating in 2027, while in the high case, the expansion will be delayed to 2030.

Government Intervention

67. The present traffic forecasts do not consider or recommend any Government intervention to affect the airlines or destinations distribution among BRS. The general assumptions detailed above reflected the current situation and elements that have been made available to the team. Should those assumptions be modified with the time, the conclusion of this study may be affected.

Liberalisation

68. A key aspect in strong passenger travel growth over the past decades is increasingly liberalised markets. Liberalisation has encouraged significant traffic growth by removing restrictions on route entry, pricing, service capacity, and airline cooperative arrangements. As airline competition and operating efficiency have grown, pricing has decreased in real terms. Open Skies agreements have also promoted strong growth in the commercial airline industry, extending liberalisation and higher levels of competition to international and long-haul markets. The forecasts assume a continued liberalised aviation market.

Economic and Geopolitical Shocks

69. The forecast UK GDP does not include sharp downturns of the global or local economy. Generally sharp downturns of economic growth would usually result of a decline of air traffic. Likewise, any civil unrest, war, natural disaster, terrorist attack or any other hostile geopolitical event could affect air traffic and is not specifically incorporated into the forecast.

Brexit

70. The forecasts do not specifically build in a 'Brexit' effect as there is a great deal of uncertainty as to how this may affect patterns of air traffic, not just at BRS but across the UK and Europe. However, the GDP forecasts from the IMF, EIU and Oxford Economics reflect ongoing uncertainty with regards to Brexit and this can be seen in Figure 18, where

the predictions from these three outfits are considerably lower than those produced by the OECD pre-Brexit.

APD

71. Mott MacDonald have assumed that there would be no alteration to the existing Air Passenger Duty for UK airports during the forecast period. It is reasonable to assume that if the UK Government devolved powers over APD rates for flights from Welsh airports to the Welsh authority, and that if the authority set the APD rates on flights departing from Welsh airports to zero, this would have an adverse impact to BRS traffic due to the catchment areas overlapping with CWL.

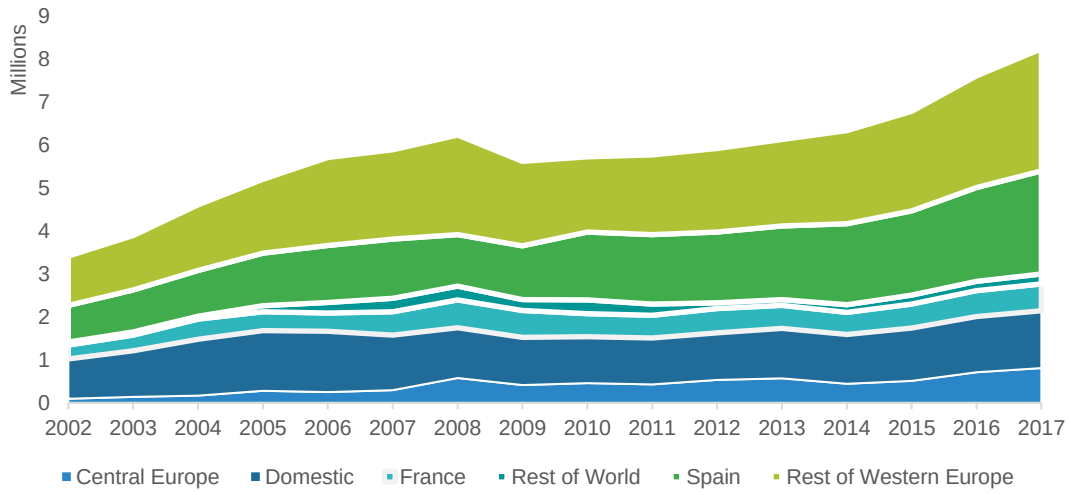
6.2.3 Econometric Analysis

72. To prepare the passenger forecast, Mott MacDonald used an econometric modelling approach. Historic passenger traffic within the major markets at BRS between 2002 and 2017 has been related to the historic development of various socio-economic variables, such as the economic growth in the UK, per capita incomes and low-cost carrier ("LCC") penetration.

73. Mott MacDonald evaluated the economic outlook for the UK and key international source markets and assessed air passenger traffic growth at BRS against these economic drivers. Mott MacDonald then used regression analyses to quantify the relationship between air traffic and key drivers and combined the economic drivers with regression analyses to derive passenger and ATM traffic forecasts.

74. The econometric model forecast passenger flows for key markets including Spain, France, Western Europe, Central Europe and the UK (domestic). The historic passenger development for these markets are shown in Figure 17:Figure 18

Figure 17: BRS Passenger Markets



Source: MIDT and CAA

75. Regression analysis showed that UK GDP is the variable with the strongest correlation with historic domestic traffic development. This regression analysis produced high adjusted R^2 value, indicating that this variable is likely to serve as a reliable predictor for future traffic development. For each market UK GDP was regressed against the market's

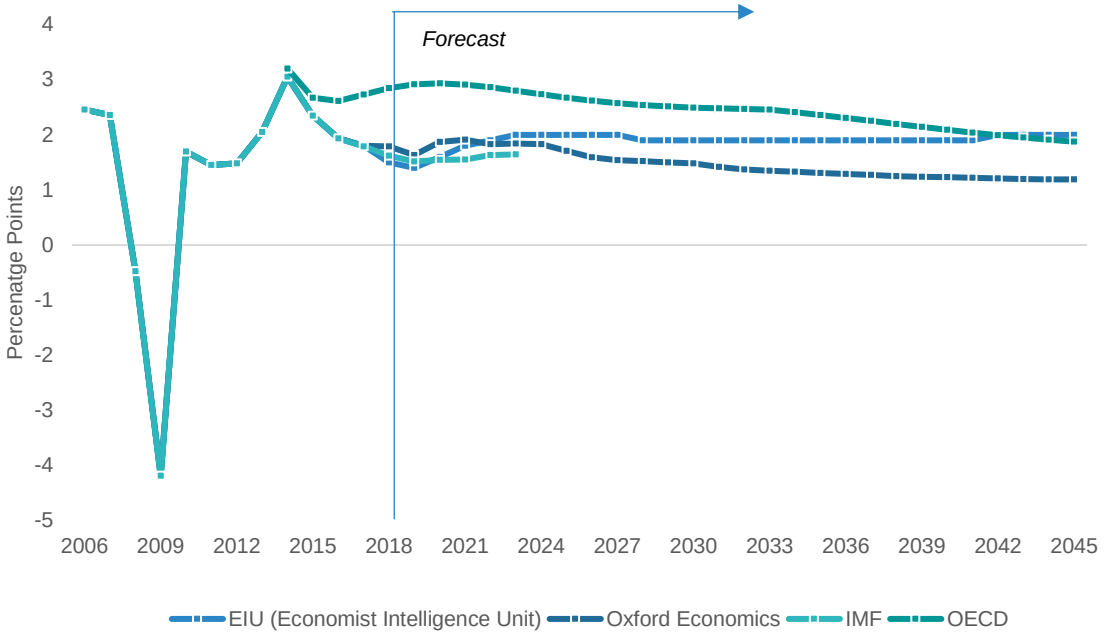
historic air passenger volumes at BRS. The final model was selected based on statistical fit, parameter robustness and the plausibility of the parameter estimates produced.

76. In many cases, demand for air travel grows at a rate higher than that of the economy, so that each 1% increase in GDP results in air traffic growth of 1.0% to 2.0%. However, as markets mature, the GDP elasticity tends to decline, meaning that over time GDP growth has a smaller impact on air travel growth. The USA, for example, tends to have relatively low elasticities between economic growth and air travel demand. Domestic USA travel demand is often recognised to have an elasticity ratio to economic growth of 1.0. In contrast, a developing economy may have elasticities exceeding 2.0. The regression results indicate GDP elasticities at BRS ranging from 1.2 for domestic traffic and 3.8 for Central Europe traffic. The domestic elasticity value is typical for a mature market such as the United Kingdom, while the relatively high Central Europe elasticity is common for emerging markets, especially one where demand for air travel has been stimulated by low-cost carriers offering lower fares which make air travel affordable for a growing number of people within a greater range of wage brackets.

77. This understanding of air travel demand relative to income elasticities was applied in preparing the forecasts. As the market matures and gradually reaches saturation, the GDP elasticity will decline to a value reflecting the maturity of the local air transport market. Based on the results of each model, the elasticity multipliers were applied to economic projections at the starting point of each long-term forecasts. As the forecast years progress, decreasing elasticities of demand were applied so that the long-term forecast reflects the growing maturity of the market as well as the source markets. Finally, the output was critically reviewed for reasonableness, validated the projections using independent industry regional forecasts, such as Airbus forecasts, and made adjustments to the year-over-year passenger growth rates as necessary. Historic and forecast GDP for the markets were sourced from official and reputable industry sources as listed below:

- International Monetary Fund (IMF): World Economic Outlook Database April 2018;
- Organisation for Economic Co-operation and Development (OECD): Long-term GDP baseline projections, No. 95 (Edition 2014);
- Oxford Economics;
- Economist Intelligence Unit.

Figure 18: UK Real GDP Percentage Change Growth Projections



Source: EIU, Oxford Economics, IMF, OECD

Table 4: Econometric Model Performance

Elasticity Name	Elasticity	Elasticity p-value	Adjusted R-Square
UK GDP – BRS Spain Traffic	2.9183	<0.001	0.9096
UK GDP – BRS France Traffic	1.9807	<0.001	0.8090
UK GDP – BRS Western Europe Traffic	2.4556	<0.001	0.8892
UK GDP – BRS Central Europe Traffic	3.8961	<0.001	0.8164
UK GDP – BRS Other International Traffic	3.3997	<0.001	0.9151
UK GDP – BRS Domestic Traffic	1.2276	<0.001	0.8445

Source: Mott MacDonald Analysis

6.2.4 Scenarios

78. All traffic forecasts are subject to a degree of risk and uncertainty. Forecasts are based on underlying assumptions such as economic growth traffic stimulus, fuel and airfare prices, new aircraft technology, tourism trends, etc. Although forecast assumptions are developed from the best-known intelligence, and careful analysis and experience, it is difficult to determine how these factors might vary.

79. Two alternative forecast scenarios, along with the base scenario, have been developed to gain a better understanding for the possible range of outcomes: (1) a low scenario, which in general takes on a more conservative stance towards factors such as economic performance, new air service traffic development, airline fleet deliveries, airline success, etc. and (2) a high scenario, which assumes a more positive view on the economic

development, as well as an accelerated pace for anticipated short-term air service traffic developments.

80. The following summarizes the variations that have been applied to the baseline forecast to generate the low and high scenarios:

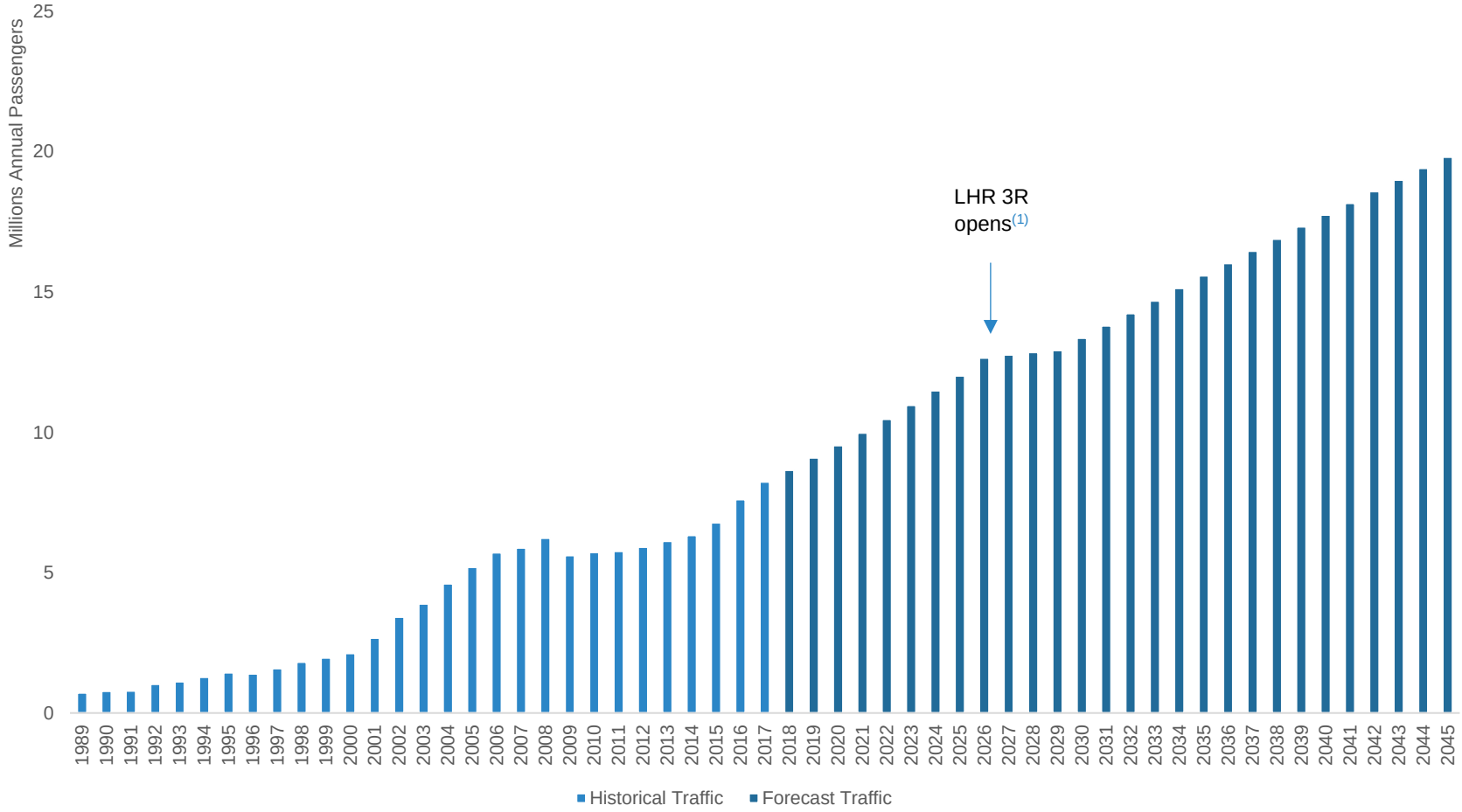
81. In the low, or pessimistic forecast, the economic growth in the main source markets is lower than in the baseline, or most likely, forecast. This could reflect a situation in which, for example, the economic situation in the UK changes to weak growth and consequently, puts a downward pressure on discretionary spending such as travel while economies in other European countries also develop more slowly than expected.

82. The optimistic forecast assumes that the UK economy thrives and that demand for air travel also increases - the accelerated economic development fuels increase in tourism and trade, translating into more passenger activity. In this scenario it is assumed that BRS will support the development of outbound tourism and other business activity within its region over the forecast period.

6.3 Mott MacDonald traffic forecast results

83. The results of the BRS base forecasts (mppa) are presented Figure 19. Fuelled by a growing domestic economy and positive airline expansion plans, the trend of recent traffic growth at BRS is continued in the years of the forecast. It predicts that BRS will grow from 8.2 mppa in 2017 to 12.7 mppa by 2026 and eventually to 19.8 mppa by 2045.

Figure 19: Mott MacDonald BRS Base Passenger Forecast

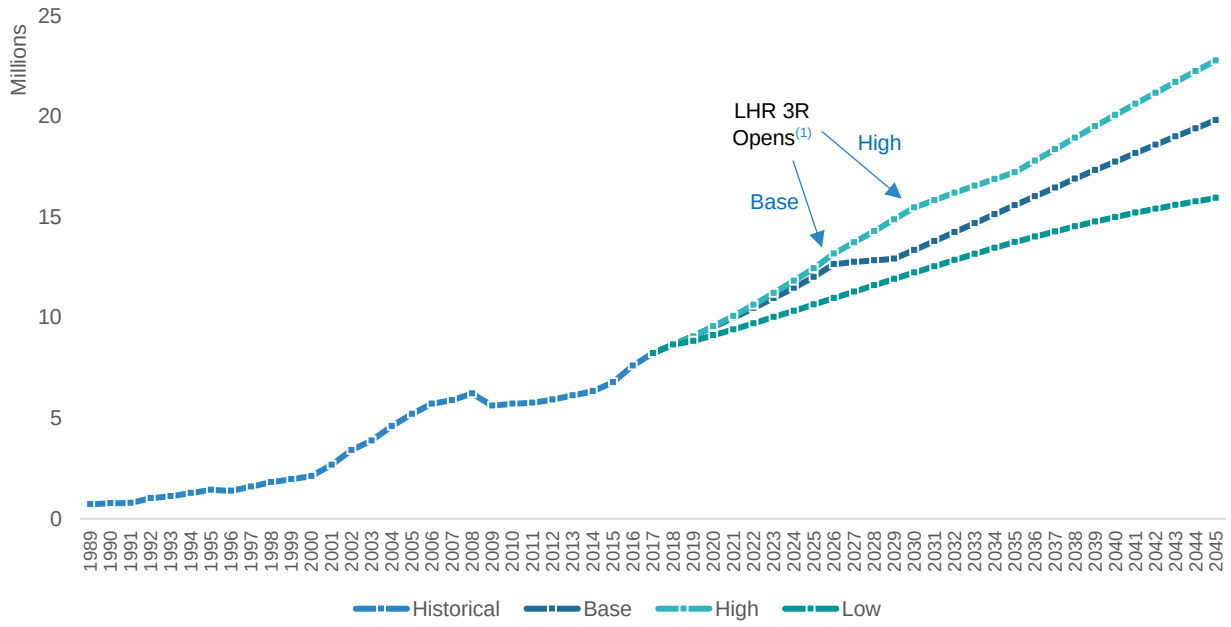


(1) Heathrow Airport's planned opening date for the third runway is by the end of 2026. This is the Base Case assumption for this BRS forecast; the high case assumes a 2030 opening.

Source: Mott MacDonald Analysis

84. The results for the three scenarios stated are presented in Figure 20. The low case predicts 15.9 mppa by 2045, whereas the high case predicts 22.8 million by 2045.

Figure 20: Mott MacDonald BRS Passenger Forecasts



(1) Heathrow Airport's planned opening date for the third runway is by the end of 2026. This is the Base Case assumption for this BRS forecast; the high case assumes a 2030 opening.

Source: Mott MacDonald Analysis

6.4 Comparison with BRS management and industry forecasts

85. Several relevant forecast studies have been considered by Mott MacDonald in the preparation of the traffic forecasts for BRS, including industry forecasts prepared by Airbus and Boeing, as well as forecasts that have been prepared previously for by the airport management. Table 5 shows the projections prepared by aircraft manufacturers Airbus for the traffic flows that are most applicable at BRS airport:

Table 5: Airbus Global Market Forecast 2017 - 2036

Traffic flow	2016-2026 CAGR	2026-2036 CAGR	2016-2036 CAGR
Intra Western Europe	2.8%	2.2%	2.5%
Domestic Western Europe	2.1%	1.8%	1.9%
Central Europe - Western Europe	5.5%	4.4%	4.9%

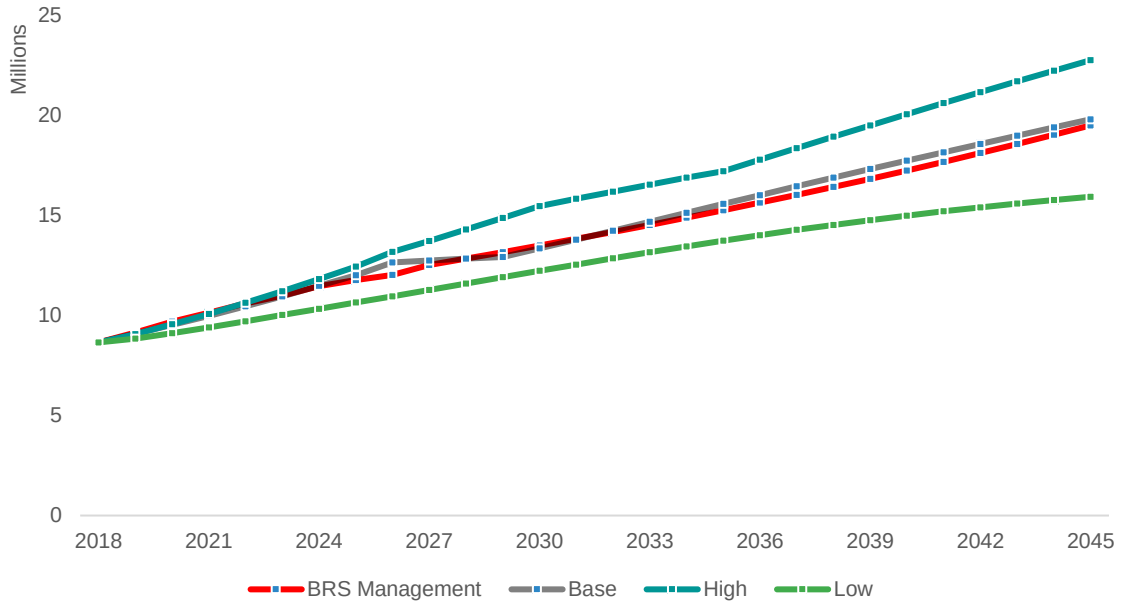
Source: Airbus

86. The Department for Transport ("DfT") published an update to its UK aviation demand forecasts in 2017, however, it should be noted that the DfT model forecasts overall demand at the national level, which is subsequently distributed geographically at the district level. The DfT forecasts take the current planning restrictions on Bristol Airport into account and therefore do not model growth beyond 10 mppa. The DfT states that the purpose of its forecasts is primarily in informing longer term strategic policy rather than in providing detailed forecasts at each individual airport. The DfT constrained

forecasts, therefore, do not reflect the underlying demand for additional air services at BRS should planning permission to grow beyond 10 mppa be granted. This underlying future demand is the subject of this forecast validation study.

87. Figure 21 compares Mott MacDonald's scenarios with the forecast by airport management and the latter falls within the high and low scenarios, and close to the Mott MacDonald base case. BRS Management expect a higher growth in passengers in the short term than indicated by the pure econometric model developed by Mott MacDonald, although in the medium to longer term the BRS Management and Mott MacDonald base case forecasts are very similar. This short-term growth in the BRS Management forecast is informed by detailed airline route, network and fleet plan intelligence. BRS Management forecast growth during the 2017-2022 period is 5.2% per annum, compared with actual growth 2012-2017 of 6.8%.

Figure 21: BRS Forecast Comparison – Mott MacDonald v BRS Management



Source: Mott MacDonald Analysis & Bristol Airport Management

Table 6: Comparison of Bristol Airport Management vs Mott MacDonald forecast (mppa)

Year	Mott MacDonald Low	Mott MacDonald Base	Mott MacDonald High	BRS Management
2017	8.23	8.23	8.23	8.23
2018	8.66	8.66	8.66	8.58
2020	9.12	9.53	9.56	9.70
2025	10.65	12.01	12.44	11.77
2030	12.24	13.36	15.47	13.50
2035	13.75	15.58	17.22	15.26
2040	15.00	17.75	20.07	17.25
2045	15.94	19.82	22.78	19.51
Compounded Annual Growth Rates				
2018-2025	3.00%	4.79%	5.32%	4.62%
2025-2035	1.39%	1.07%	2.20%	1.38%
2035-2045	1.49%	2.43%	2.84%	2.49%
2018-2045	2.29%	3.11%	3.65%	3.09%

Source: Mott MacDonald Analysis & Bristol Airport Management

6.5 Aircraft movements

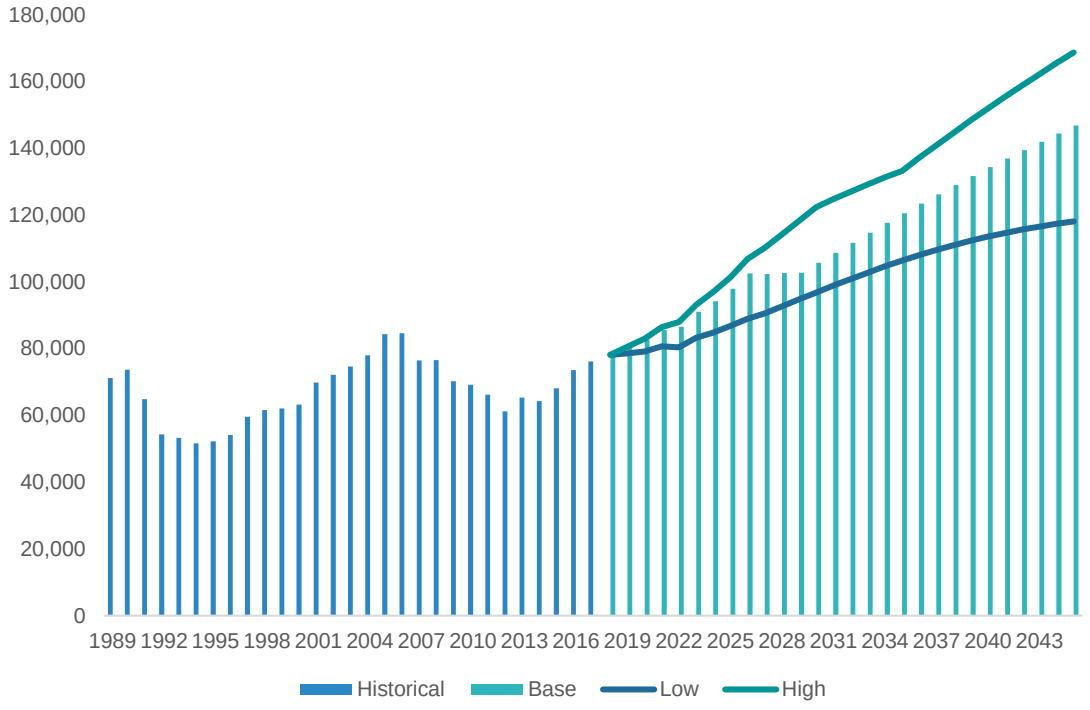
88. Movements can be translated into aircraft operations by making assumptions on average aircraft size and load factors described by the following equation:

$$Aircraft\ Movements = \frac{Passenger\ Forecasts}{Average\ Passengers\ per\ Aircraft\ Movement}$$

89. In this conversion process, estimates for average aircraft size and average load factor are prepared and applied separately to international and domestic traffic segments. Over the forecast period, changes in the future aircraft fleet mix and load factors reflect anticipated changes to the current fleet mix, market development and new air services as well as improved aircraft utilisation.

90. Mott MacDonald predicts commercial aircraft movements to reach a little over 146,000 in the base case, around 118,000 in the low case and 169,000 in the high case by 2045. BRS Management projected approximately 97,500 movements in 2026 compared to Mott MacDonald's base case forecast of 102,500 in 2026. This difference is due to a slightly higher Mott MacDonald passenger forecast in that year.

Figure 22: Forecast of aircraft movements through 2045



Source: Mott MacDonald Analysis

7 Night Flying Requirements

7.1 Current Night Flying

91. The current BRS planning conditions limit night flying during the core night period (23:30-06:00) to 4,000 movements per year (3,000 in summer, 1,000 in winter) and during the shoulder periods (23:00-23:30 and 06:00-07:00) to 10,500 movements per year. There are also limits on the number of Quota Count (QC) points operate each summer and winter season, as summarised in the table below:

Table 7: BRS Current Night Limits

Season	Night Movements	QC Points
Summer	3000	1260
Winter	1000	900

92. The night movement limits are fixed limits, with no flexibility between seasons. For QC points, up to 10% of unused quota may be carried over into the following season. The seasonal QC limit may also be over used by up to 10%, with the QC available in the following season reduced on a 1-for-1 basis. Any over use greater than 10% results in a reduction in the following season's QC limit by twice the amount of the overrun. The actual use of night movements at BRS is shown below:

Table 8: BRS Historic Night Movement Use

Year	Summer	Winter	Total
2007/08	2057	939	2996
2008/09	2322	831	3153
2009/10	2146	816	2962
2010/11	2984	559	3543
2011/12	2216	257	2473
2012/13	1861	253	2114
2013/14	1888	233	2121
2014/15	2210	232	2442
2015/16	2378	244	2622
2016/17	2704	298	3002
2017/18	2991	na	na

Source: Bristol Airport Operations Monitoring Report 2017

93. Night flying demand at BRS is driven mainly by short haul operations by aircraft based at the airport. These aircraft (operated by easyJet, Ryanair, Thomsonfly and Thomas Cook airlines) overnight at BRS with first departures between 06:00 and 07:30. A typical Low Cost Carrier ("LCC") aircraft will perform 3 return trips before last arrival at BRS in the late evening. A proportion of these late evening arrivals are after 23:30 in the night period. There are also a small number of long haul arrivals in the night period, typically in the early morning before 06:00. This pattern of night flying demand is typical of UK-based

European short haul operations and is similar to the patterns seen at comparable airports such as Gatwick, Manchester and Birmingham airports.

94. Winter season night flying demand is much lower than in a summer season as airlines operate aircraft with a lower level of utilisation in the off-peak season, often performing 2 return trips instead of 3 (which would often be the case for LCC's in the summer season) and requiring fewer post 23:30 arrivals in the evening. This overall pattern of demand is expected to continue in the future at BRS as the airport grows.

95. Up until 2010/11, BRS had a number of night mail flights, which have since ceased. This explains the drop-in night movement use in 2011/12, particularly in winter seasons. The resumption of night mail flights is not expected.

96. Use of available night movements in summer seasons has grown since 2013 as the airport's traffic recovered from the recession of 2008. Summer 2017 use was 99.7% of the available 3000-night movements, whereas winter season utilisation is less than 30% – on average in recent years, 90% of annual night flights occur in a summer season.

97. In response to growing night movement demand, and the risk of breaching the summer limits without adequate controls, BRS sought designation as a 'slot coordinated' airport under the EU Slot Regulations[57] by the Department for Transport for the period 23:00 to 07:00 in summer seasons, effective from the Summer 2018 season. This means that all night flights require the prior allocation of a slot before operating at the airport, providing an effective mechanism to control night flying within the planning condition limits.

7.2 Future Night Movement Requirements

98. As part of its interim planning application to grow to 12 mppa, BRS intends to seek to vary the current night restrictions planning condition. It plans to maintain the current 4,000 night movements per year, but set as an annual (rather than seasonal) limit to permit more flexible use of available night movements between summer and winter seasons.

99. Mott MacDonald has validated future night movement requirements consistent with 12 mppa airport operations (forecast to be reached around 2026) using two approaches:

- Forecasts of night movement demand related to overall growth in Air Transport Movements (ATMs) at the airport; and
- Analysis of the detailed assumptions contained in the BRS Management forecasts.

7.2.1 Mott MacDonald Night Movement Demand Forecast

100. Forecasting night movements is challenging as it depends on the detailed structure of airline schedules, as well as on-the-day flight delays affecting the proportion of day-flights that may be delayed into the night. Actual night movements may, therefore, vary year-on-year. None-the-less, there is a broad relationship between night movements and total movements at the airport over the long-run. Night movement forecasts have been developed based on the following assumptions:

Table 9: Night Time Assumptions

Scenario	Assumption
High Case	Night movements grow in relation to annual ATMs based on a linear regression of ATMs to Night Movements over the period 2012 to 2017
Mid Case	Night movements grow at the same rate as annual ATMs

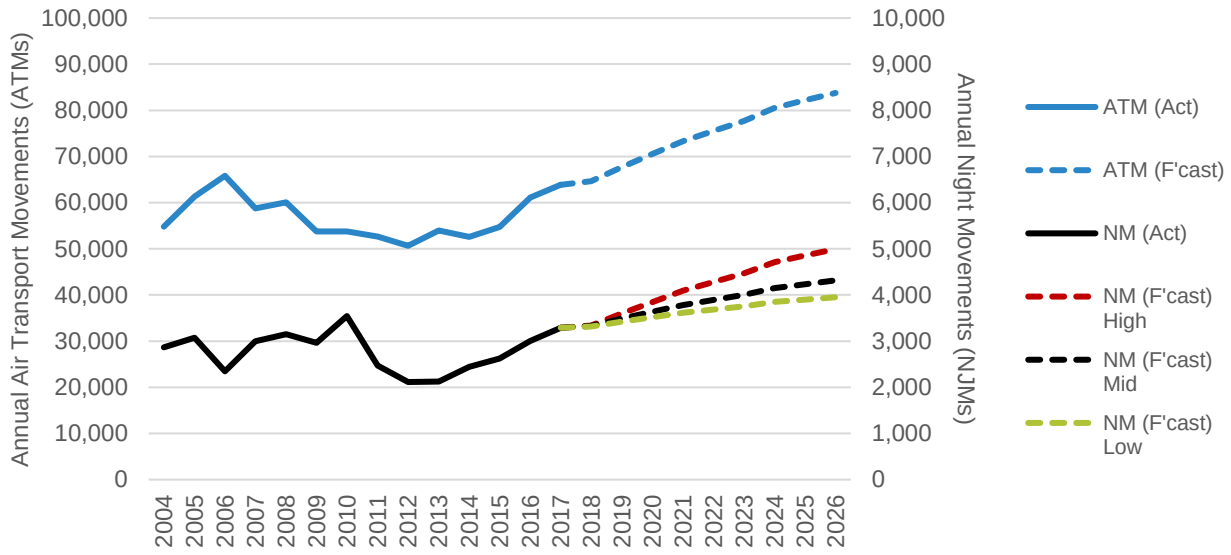
[57] *Council Regulation (EEC) 95/93*

Scenario	Assumption
Low Case	Night movements grow at 67% of the rate of annual ATM growth

101. The results of this forecast are shown in the figure below. In the High Case, night movements are forecast to grow more quickly, based on recent trends – by 51% to around 5,000 annual night movements. The Mid Case night movements grow in line with annual ATM growth (+31%) to around 4,300. The Low Case grows by 20% to 3,950 annual night movements.

102. The High Case represents an estimate of unconstrained demand for night movements with a continuation of airlines' current patterns of scheduling and proportions of aircraft based at BRS. The Low Case represents a constrained scenario where night movements are strictly controlled through the slot process, but at a level where overall growth of the airport to 12 mppa can still be achieved.

Figure 23: Forecast of annual night movements to 2026



ATM – Air Transport Movement – excluding GA, Freight and Mail flights
NM – Night Movement

Source: Mott MacDonald Analysis

7.2.2 Analysis of BRS Management Forecast Assumptions

103. In a Summer 2018 typical busy week, BRS currently has 95 scheduled night movements per week. The BRS Management forecasts assume 6 additional based-aircraft operating at the airport in summer seasons by 2026, increasing from 31 to 37 aircraft. Of these 6 additional aircraft, 4 are expected to operate with night arrivals in the late evening, ie, 4 additional night movements per day or 28 additional weekly night movements. This increases the weekly scheduled night movements to 123 per week by 2026. The table below calculates the number of annual night movements resulting from this forecast growth.

104. There are 30 weeks in a summer season, but there are slightly less night flights in the April/May shoulder months, so the historic ratio between the full season and peak week is 28.4. Applying this multiple to the 123 weekly night movements gives 3,493 summer

season scheduled night flights in 2026. Adding allowances for delayed scheduled flights, non-scheduled ad hoc night movements, and an allowance for winter season night movements gives a total predicted annual use of night movements in 2026 (at 12 mppa traffic levels) very close to the proposed 4000 annual night movement limit.

Table 10: BRS Night Movement Use Calculation for 2026 forecasts (12 mppa traffic level)

Summer 2018 Peak Week schedule night movements	**95**	[a]
additional Peak Week night movements by 2026	28	[b]
Total Summer 2026 Peak Week scheduled night movements	123	[c] [= a + b]
Peak Week to Full Summer season ratio	28.4	[d]
Summer 2026 full season scheduled night movements	**3493**	[e] [= c x d]
Allowance for delayed day-time flights	150	[f]
Allowance for ad hoc night flights	50	[g]
Total summer predicted use	**3693**	[h] [= e + f + g]
Winter season predicted use	300	[i]
Total annual predicted use	**3993**	[j] [= I + j]

7.3 Future Night QC Requirements

7.3.1 QC Rating System

105. Night noise is controlled by a noise quota count (QC) classification system, first introduced for the designated London airports (Heathrow, Gatwick and Stansted) in 1993, and adopted at other UK noise regulated airports such as Manchester, Birmingham and Bristol. An aircraft type's QC classification is based on its certified noise levels for arrivals and departures. The London system has been updated over time as aircraft have become quieter, introducing a QC 0.25 band in 2006 and a QC 0.125 band from October 2018. This has had the effect of reducing the number of QC 0 (or exempt) aircraft types.

106. The BRS night regime has not been updated to remain in line with the London system. The BRS interim planning application is expected to seek adoption of the latest London QC rating system. The current BRS and latest London QC classification systems are summarised in the table below.

Table 11: QC Classification System

Noise Classification	QC – London Airports(*)	QC – Bristol Airport
Below 81 EPNdB	0	0
81-83.9 EPNdB	0.125	0
84-86.9 EPNdB	0.25	0.5
87-89.9 EPNdB	0.5	0.5
90-92.9 EPNdB	1	1
93-95.9 EPNdB	2	2

Noise Classification	QC – London Airports(*)	QC – Bristol Airport
96-98.9 EPNdB	4	4 *banned at night
99-101.9 EPNdB	8 *banned at night	8 *banned at night
Above 101.9 EPNdB	16 *banned at night	16 *banned at night

(*) New London system taking effect from October 2018

107. The effect of adopting the London QC system at BRS, and of expected modernisation of the fleet by 2026, is summarised in the table below.

108. In Summer 2017, the average QC per movement actually operated at night (including delayed day-flights as ad hoc operations) was 0.51. This correlates closely with the average QC per movement for scheduled night flights, which is 0.52 for the busy week Summer 2018 schedule.

109. Adopting the London QC system with the current 2018 BRS fleet mix is calculated reduce the average QC per movement to 0.38, as a number of aircraft types currently classified as QC 0.5 at BRS actually produce 84-86.9 EPNdB noise levels and qualify for the QC 0.25 band. Conversely, the Embraer E190, currently classified as QC 0 at BRS, are QC 0.125 under the latest London QC system.

110. BRS Management have forecast the future airline fleet mix in 2026. Based on these fleet forecasts, average QC per movement is expected to decrease from 0.38 in 2018 to around 0.31 by 2026 (under the London QC system).

111. Mott MacDonald has reviewed these assumptions and consulted with the airport's main airlines on the fleet assumptions. Incorporating airline feedback, Mott MacDonald has calculated sensitivities on future (2026) QC requirements, which produce average QC per movement values in the range 0.27 to 0.30. Therefore, the BRS Management fleet assumptions are reasonable and slightly on the conservative side overall.

Table 12: Impact of QC Classification System and Fleet Modernisation

	BRS QC System			London Airports QC System	
QC Band	Summer 2017 Actual	Summer 2018 Schedule	Summer 2026 Forecast	Summer 2018 Schedule	Summer 2026 Forecast
0	2%	2%	37%	0%	0%
0.125	na	na	na	2%	37%
0.25	na	na	na	55%	28%
0.5	94%	93%	59%	38%	31%
1	4%	5%	3%	5%	3%
2	0%	0%	0%	0%	0%
QC per Movement	**0.51**	**0.52**	**0.33**	**0.38**	**0.31**

Source: Mott MacDonald analysis

7.3.2 Night QC Demand

112. Adopting the London QC system reduces average QC per movement, with the current 2018 fleet mix, to a calculated value of 0.38. This is expected to improve to 0.31 QC per night movement by 2026 with the phased introduction of quieter aircraft types.

113. The table below shows predicted QC use, based on an annual 4,000 night movement limit and adoption of the London QC classification system. It shows that the current seasonal QC limits (1260 points in summer and 900 points in winter) are sufficient to

accommodate the 4,000 annual night movements corresponding to operations at the 12 mppa level. With the current 2018 airline fleet mix, summer QC use will require use of the 10% seasonal flexibility permitted. With fleet improvements expected by 2026, QC use is likely to be within limits without use of seasonal flexibility.

Table 13: Seasonal QC Requirements

	Summer	Winter
QC Limits		
QC Limit	1260	900
• Winter-to-summer carry-over (10% of winter limit) • Summer over-use (10% of summer limit)	+90 +126	-90 -126
QC Limits using full 10% flexibilities	1476	684
Night Movements		
Assumed seasonal use of 4000 annual night movement limit	3700[1]	300
QC per Movement (based on London QC System)		
2018 fleet mix	0.38	0.38
2026 forecast fleet mix	0.31	0.31
Projected QC Use		
2018 fleet mix	1406	114
2026 forecast fleet mix	1147	93

Source: Mott MacDonald calculations

1 *High-end estimate, including allowances for delayed day-time flights and ad hoc use, as per Table 10*

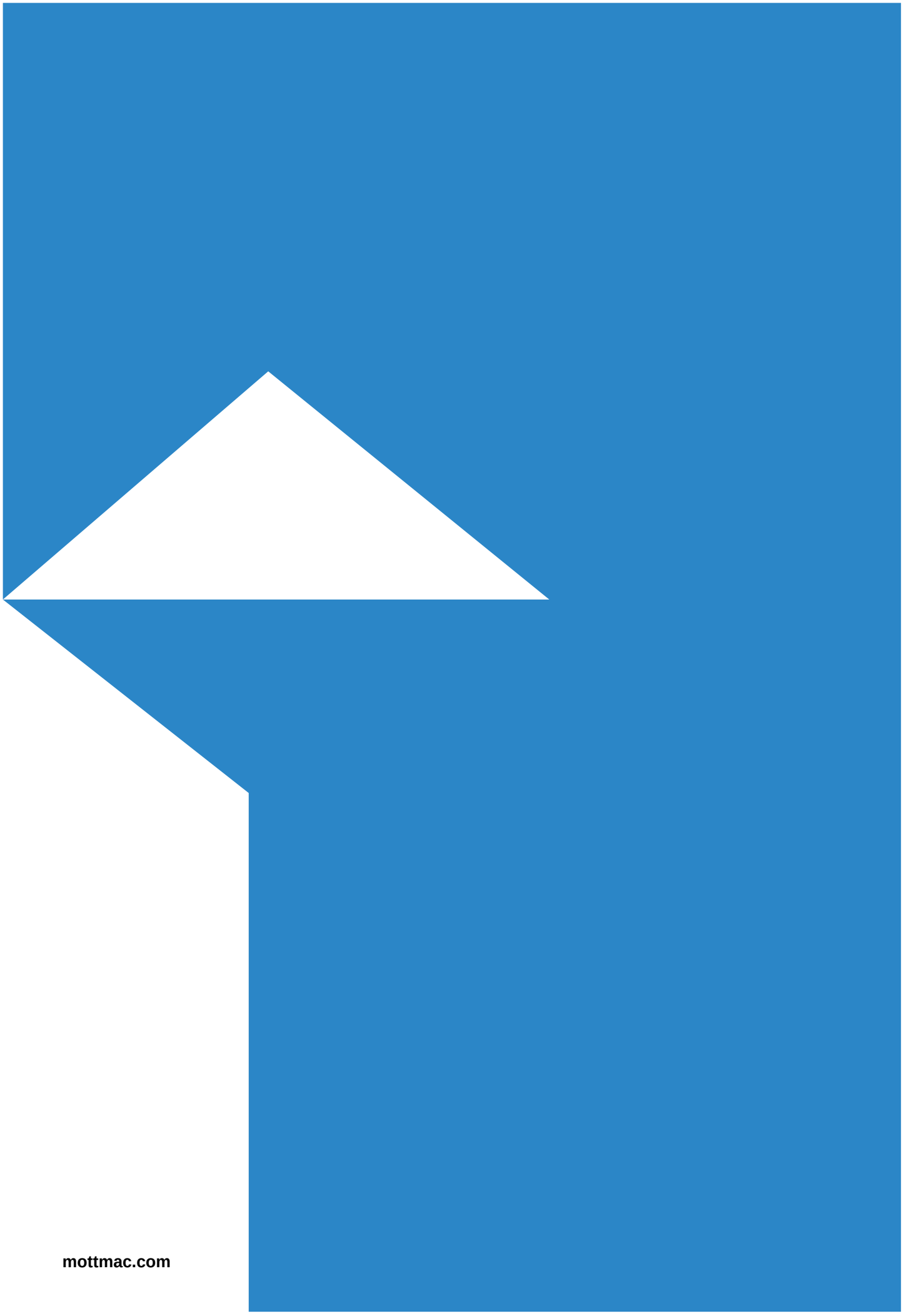
7.4 Mott MacDonald Conclusion on Future Night Flying Requirements

114. The above analyses indicate that a 4,000 annual night movement limit, with flexible use between summer and winter seasons, is **just** sufficient to accommodate growth to 12 mppa traffic levels.

115. This assumes strict control of night movements through the slot process and management of the timings of airline schedules to limit growth in night movements, as well as proactive management of delayed flights and non-scheduled ad hoc night use. Unconstrained demand for night flights, consistent with 12 mppa traffic levels is likely to be closer to 5,000 annual night movements.

116. It should also be noted that slot controls are currently only applied in summer seasons, as the current 1,000 winter season night movement limit is ample to meet demand. If BRS moves to an annual night movement limit, both summer and winter seasons will be night movement constrained and slot controls will be required for winter seasons also.

117. Based on an annual 4,000 night movement limit, adopting the latest London QC system would reduce the QC requirements so that the 4,000 annual night movements can be accommodated within existing seasonal QC limits with continued use of the 10% seasonal flexibility permitted.



wood.