

## DELEGATED REPORT

<b>Application No:</b>	18/P/3502/EA2	<b>Target date:</b>	10.07.2018
<b>Case officer:</b>	Neil Underhay	<b>Extended date:</b>	22.08.2018
<b>Proposal:</b>	Environmental Scoping Opinion to determine the scope of an Environmental Impact Assessment for a future application for the proposed expansion of the airport to accommodate 12 million passengers per annum. THIS IS NOT A PLANNING APPLICATION		
<b>Site address:</b>	Bristol International Airport, North Side Road, Felton, Bristol		

### Context

To ensure that they can continue to meet passenger demands both now and into the future, Bristol Airport Limited (BAL) are preparing a new Airport Master Plan. This will set out a long-term strategy for phased growth of the airport to meet a projected increase in passenger numbers, which could increase from approximately 8.2 million passengers per annum (mppa) reached in 2017 up to 20 mppa by the mid 2040's.

The issues BAL currently face and their broad approach to addressing these through master planning were set out in a discussion document: 'Your Airport, Your Views'. This was subject to public consultation between November 2017 and January 2018. Public consultation on the emerging Master Plan proposals took place between May and July 2018 with publication of Draft Master Plan expected in late 2018 / early 2019.

The initial phase of planned growth is to carry out a range of developments at the airport, which would enable BAL to increase the current passenger cap of 10 mppa, which is expected to be reached by 2021, to 12 mppa. This will allow for growth in passenger numbers up to the mid-2020s. BAL intends to submit a planning application later in 2018 to increase the passenger capacity to 12 mppa.

### The Proposed Development

The range of proposed developments to achieve 12 mppa are broadly divided into 3 separate areas at the airport. These are:

- The Northern Area: This is chiefly the passenger terminal and adjoining car parks / roads and other land areas which are in the Airport's Green Belt Inset.

- The Central Area: This comprises aircraft taxi-ways and aircraft stands
- The Southern Area: This is mainly the 'Silver Zone' and adjoining land.

The proposed developments are summarised as follows:

#### Northern Area proposals

- A four-storey extension to the west side of the passenger terminal providing approximately 10,400 square metres of additional floor space
- A two-storey extension to the south side of the passenger terminal providing approximately 3,600 square metres of additional floor space
- An extension to the east side of the passenger terminal providing approximately 855 square metres of additional floor space
- A new arrivals area with circulation space to the south of the terminal providing approximately 473 square metres of additional floor space.
- A new walkway to the east pier with a floor space of approximately 3,000 square metres.
- A new, 10.6m high pier connected to the eastern walkway for passenger access to the eastern stands, with vertical circulation cores and five pre-board zones. This will have a floorspace of approximately 3,900 square metres.
- A new service yard to the north of the western walkway and east of the current airside access security building. This will be principally used for the delivery of goods and as a waste management area including compactors, refuse bins. The site area is approximately 0.4 of a hectare
- An additional multi-storey car park (MSCP) to provide approximately 2,150 spaces over 5 levels in the northern area of the Bristol Airport adjacent to the current MSCP. The MSCP will occupy a footprint of around 1.12 hectares.
- A new two-lane (one-way) gyratory road system within the northern area.

#### Central Area Proposals

- A new eastern aircraft taxiway link at the eastern end of the runway. This will be a continuation of the current surfacing and will have a footprint of approximately 0.51 of a hectare.
- Widening of the aircraft taxiways to the southern edge of the northern most taxiway (Taxiway GOLF). This will have a site area of approximately 1.81 hectares.
- Changes to the current restrictions on aircraft stands 37 and 38 to allow:
  - the use of mobile power generators;
  - installation and use of aircraft auxiliary power units; and

use of aircraft engines for taxiing (as opposed to towing).

### Southern Area Proposals

- Change the seasonal use of the car park (currently only allowed to be used between May to October each year) to all-year-round use, with permanent fixed lighting and CCTV.
- An extension to the 'Silver Zone' car park comprising approximately 2,700 additional spaces for all-year-round use. This will have a site area of approximately 5.1 hectares.

### Off-Site Works

- Alterations to the A38 at the Downside Road and West Lane junctions as well as carriageway improvements to a section of the existing A38.

### **Process**

BAL must establish whether an Environmental Impact Assessment' (EIA) is needed as part of the 12 mppa application. This is known as EIA 'screening'. The 'Town and Country Planning (Environmental Impact Assessment) Regulations 2017, says screening is required for developments listed in Schedules I and II of the EIA Regulations. EIA is mandatory for all Schedule I development. For Schedule II development, EIA is required where the proposal is likely to have significant effects on the environment, due to: the characteristics of the development; the location of the development; or the types and characteristics of the potential impact.

This proposal falls under Schedule 2 (Paragraph 13b) of the EIA Regulations. This is concerned with proposal for '*Changes and Extensions*' to premises and a determinative factor is whether: "*The development as changed or extended may have significant adverse effects on the environment*".

BAL consider the nature of the proposal: "*has the potential to have significant effects on the environment, due to the characteristics, location and potential impact of developing and operating Bristol Airport to serve 12 mppa.*" To that extent, they have not undertaken a formal EIA Screening Opinion because they already conclude that an EIA will be needed for a planning application to increase passenger capacity to 12 mppa. Officers agree with this conclusion.

The next stage is to agree the scope of the EIA. BAL has submitted an EIA scoping report to the Council for consideration.

### **Purpose and Requirements of EIA Scoping**

The purpose of EIA scoping is to bring together information about any likely significant environmental effects of a proposed development. The Scoping opinion should include:

- a plan sufficient to identify the land that will be the subject of the planning application;
- a brief description of the nature and purpose of the development; and,

- an explanation of the likely significant effects of the proposed development on the environment, as well as those potential effects scoped out from further assessment.

Scoping opinions should set out a detailed methodology for assessing those effects, including temporary and permanent impacts, interactive and cumulative impacts. The Council's role is to undertake a critical review and decide whether it agrees with the scope and methodology. If it does, then the scope of the EIA is 'adopted'. EIA scoping report can be adopted subject to further requirements, in which case the Council should clarify those requirements. Once adopted, the scoping will form the basis of the full EIA, which is known as the 'Environmental Statement' (ES).

## Consultation

The EIA scoping report has been subject to consultation, including consultation with statutory and non-statutory organisations, Parish Councils and various teams / officers within the Council. The Council also commissioned independent consultants to review some aspects of the EIA scoping report. Third party consultation responses can be viewed on the Council's Website and a summary of comments are set out below.

### Wrington Parish Council

Have highlighted some errors and anomalies in the scoping report. This have been referred to BAL. The summary below includes other points of details.

- It is unclear why some 'local' sites have not been considered worthy of inclusion, such as SNCI 591 (Brockley Combe, Cleeve Hill and Goblin Combe), SNCI 424 (Woodland south of Broadfield Farm), SNCI 447 (High Wood, Lulsgate), SNCI 516 (Felton Hill and Common) and SSI at Goblin Combe, and further west the SAC covering King's Wood, all of which are within 10km of the airport. The above list is not exhaustive as several other sites are also within 10km and worthy of consideration.
- Noise impacts on the ground include aircraft running up to take-off at full throttle and landing using reverse thrust combine to be the greatest/loudest noise level experienced at ground level and this should be considered in the noise assessment
- Fig 6.1 does not appear to include any assessment of the effect of increased noise on wildlife and ecology (birds, bats and mammals) which must also be affected by noise from both ground activities and overflying at take-off and landing. (Badgers for instance are adversely affected by noise levels.)
- Para 6.6.2. There will be considerable differences in traffic noise levels between summer and winter months and times of day. How will these be rationalised because to take an average would present an inaccurate picture. Within Chapter 6 there appears to be no recognition of the adverse effect that increased noise levels has upon the environment generally or specifically.
- Para. 7.5.13 The settlement of Redhill would appear to be worthy of inclusion. (Page 57).
- Para. 7.6.7 (Page 66 version) If NO<sub>x</sub>, NO<sub>2</sub> and PM are the only local air quality pollutants where there is any risk of significant effects from airport operations, surely it is those factors which should be assessed further, not the opposite? Table

7.3 should all require further assessment, not the contrary. The subsequent methodology statement appears to be contrarian to the preceding table of effects not requiring assessment.

- Para 8.5.10 The settlements of Cleeve, Claverham and Backwell are also worthy of mention using comparative size as a criterion.
- Para 8.5.11 The principal routes are A38, to a lesser degree the A368, but not the A386, which does not feature anywhere on OS Sheet 182. We would suggest that the A370 be included as a principal route as it runs south-west to north-east on the west side of the airport.
- Para 8.6.9 J2 Wrington Parish does suffer landscape sensitivity and tranquillity levels are affected by Bristol Airport's activities, notably aircraft noise emanating from take-off and landing patterns to the north of the village. The A38 is 2km from Wrington village and its proximity contributes minimally to any loss of tranquillity, with airport activity probably the major contributor and that activity is set to be increased.
- Para 8.6.29 An interim assessment of proposed mitigation measures after 5 or 10 years would be useful to monitor effects on both the environment and wildlife.
- Para 9.5.22 The "small woodland" also provides important foraging territory for bats.
- Table 9.8 does not appear to consider increased periods of noise due to increased numbers of flights proposed. This would seem to be an important factor.
- Table 13.4 omits mention of Barley Wood House & Gardens (2.5km south) and many listed buildings in Wrington (4km southwest) which are not in the ZTV.

#### Backwell Parish Council

- The Airport need to identify how they plan to improve its green infrastructure and the bio-diversity, wild life habitat and its relationship impact on the countryside it sits.
- The development proposals include Extension(s) and alteration(s) to the existing terminal building to optimise passenger facilities and processing areas. The airport must show how it is going to greatly reduce its current detrimental light pollution impacts which affect residents, farm livestock and the local wild life.
- There is concern for the impacts on the local biodiversity, protected species within the Site of Special Scientific Interest and the North Somerset and Mendip Bats SAC to the West. Therefore, a full assessment of these impacts including but not restricted to any additional lighting impacts on the Greater and Lesser Horseshoe Bat should be included within the scope of the EIA.
- The airport need to identify and state how it is planning to further lessen its environmental impacts by further improvements and opportunities to use renewal energy sources in its expansion design.

- Regarding the proposed new 2150 space 5 Levels multi-storey car park (MSCP) and new surface access internal roads the airport need to clearly state how they intend to reduce the environmental impact and noise impact on the local community especially for those properties whose boundary is shared with that of the airport. How the airport proposes to screen the new MSCP and reduce the visual, noise and environmental impact on the local neighbouring properties.
- Full impact assessment must be provided on the proposed extension of the existing Silver Zone car park (removal of current restrictions to use of the extension at 'Cogloop' in place from 1st May to 31st October).
- We note that there is no reference in the supplied report to the environmental assessment of traffic impact generated by the development proposals on the SRN, particularly the M5 and its junctions within North Somerset, nor on the local road network.

### Natural England

- Provide generic comments concerning the different subject matters that should be included in the EIA as well as the main legislation and policy references.
- Advise that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters.
- Note that the site is close to several designated nature conservation sites, including King's Wood and Urchin Wood SSSI, which is a component of the North Somerset & Mendip Bats SAC:
- The EIA will need to consider any impacts upon local wildlife and geological sites.
- The ES should assess the impact of all phases of the proposal on protected species.
- The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.
- The Environmental Statement should include details of:

Any historical data for the site affected by the proposal (e.g. from previous surveys);

Additional surveys carried out as part of this proposal;  
The habitats and species present;

The status of these habitats and species (e.g. whether priority species or habitat);

The direct and indirect effects of the development upon those habitats and species;

Full details of any mitigation or compensation that might be required.

- As the development site is close to the Mendip Hills AONB, consideration should be given to the effects upon this designated landscape and the effect upon its purpose for designation within the environmental impact assessment, as well as the content of the AONB management plan.
- The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.
- The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area.
- Impacts from the development should be considered against the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in the NPPF.
- Proposals should consider the impact of development on air quality and climate change.

#### Mendip Hills AONB Partnership

In terms of the special qualities of the AONB the EIA should include consideration of effects upon views, dark skies (impacts of lighting) and tranquillity. The cumulative impact of added traffic on the road network system passing through the AONB should also be assessed.

The assessment should refer to the relevant National Character Area assessments including 141 Mendip Hills. The area is 'renowned for its tranquillity and inspirational qualities...' The NCA further recognises that 'Light pollution from development threatens the extent of the recognised dark skies.'

We would suggest that viewpoints are also considered from the Iron Age hill fort of Dolebury Warren (SSSI and SM) and Burrington Ham (SSSI and SM), both of which are open access land. We would request a photomontage and night-time photography from Beacon Batch (viewpoint 8). We would suggest that a viewpoint within the Chew Valley area also be considered and would refer the applicant to the Chew Valley Neighbourhood Plan.

#### Environment Agency

Their comments are summarised 'Surface Water and Flood Risk' and 'Groundwater' later in the report.

#### Highways England

Highways England's primary considerations will relate to the additional demand on the Strategic Road Network, particularly the M5 and its junctions, generated by growth to 12mppa and the impact of the car park expansions on the Airport's surface access strategy.

An assessment of transport related impacts of the proposal should be carried out and reported as described in the current Department for Communities and Local Government (DCLG) guidance on *‘Travel Plans, Transport Assessments and Statements in decision-taking’*.

### Wessex Water

The scope of chapter 10 covers arrangements for the impact of the proposals on surface water and foul water requirements. We are satisfied with the scope and recommend the applicant's consultants contacts Wessex Water to assess options and impacts.

## **Structure of the EIA Scoping Report**

The scoping report is divided in to chapters. It describes the development proposal; reviews legislation, policies and guidance relevant to the topic that will guide the scope of the assessment; summarises data sources used to inform the current baseline conditions; and summarises engagement with consultees that has occurred to-date or is planned. A summary of the scope of the assessment is then carried out, which defines the potential likely significant effects. This includes:

- Identification of the different receptors that could be subject to potential likely significant effects and their sensitivity to environmental impacts;
- A summary of the likely significant effects requiring further assessment;
- A summary of the potential effects assessed as not requiring further assessment, with explanation as to why not; and
- The proposed assessment methodology.
- Cumulative and over-arching impacts

## **Environmental Subjects in the Scoping Opinion**

Schedule 4 paragraph 4 of the EIA Regulations identifies broad factors that are likely to be significant and affected by a development proposal. This includes: *“population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydro-morphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.”* The EIA address factors as follows:

<b>Factor</b>	<b>Where considered within this Scoping Report</b>
Population	Socio-economics [Chapter 14] Health [Chapter 15]
Human Health	Health [Chapter 14]
Biodiversity	Biodiversity [Chapter 9]
Land	Land quality [Chapter 12]



Soil	Land quality [Chapter 12]
Water	Surface water and flood risk [Chapter 10] Groundwater [Chapter 11]
Air	Air quality [Chapter 7]
Climate	Greenhouse gases [Chapter 17] Climate change [Chapter 18]
Material assets	Traffic and transport [Chapter 5] Land quality [Chapter 12] Archaeology and cultural heritage [Chapter 13]
Cultural heritage	Archaeology and cultural heritage [Chapter 13]
Landscape	Landscape and visual [Chapter 8]
Interaction between the above factors	Discussed in various chapters

Other environmental factors included in the EIA scoping report include Noise (Chapter 6) and Major Accidents and Disasters (Chapter 16).

#### **Assessment**

The table below lists the different chapters in the EIA scoping report and summarises the officers review of each taking in to account consultation responses.

	<b>SUBJECT</b>	<b>SUMMARY COMMENTS</b>
1	Introduction	This is clear, concise and accords with relevant EIA regulations. Some minor clarification is suggested so far as the way plans are presented in the Environmental Statement (ES), details of which have been sent to BAL.
2	The Proposed Development	This is generally clear, subject to minor clarification, details of which have been sent to BAL.
3	Planning Policy	Generally acceptable, although some further policies and updates are necessary in the ES, details of which have been sent to BAL. Any references to the NPPF should be updated to reflect the new version issued in July 2018.
4	Approach to EIA scoping	This is acceptable and in accordance with the EIA Regulations 2017.

5	Transport and Traffic	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
6	Noise	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
7	Air Quality, Dust and Odour	Scope and methodology for assessment is acceptable.
8	Landscape and Visual Impact	Representative viewpoints are appropriate, but further representative viewpoints are also required. Additional photo montages to show the likely impact of the development are also necessary. These are explained later in this report.
9	Biodiversity	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
10	Surface Water Flood Risk	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
11	Groundwater	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
12	Land Quality	Scope and methodology for assessment is acceptable.
13	Historic Environment	Scope and methodology for assessment is acceptable.
14	Socio-Economic	Scope and methodology for assessment is acceptable.
15	Human Health	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
16	Major Accidents and Disasters	Agree that it can be scoped out of the assessment, but this subject should be addressed as part of the application in a separate report.
17	Carbon and other Greenhouse gas emissions	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.

18	Climate Change	The scope and methodology is mostly acceptable, subject to additional points set out later in this report.
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## Further Analysis

### Traffic and Transport

Paragraph 5.2.28 of the Scoping Report sets out the guidelines under which the Traffic and Transport Assessment will be undertaken. These are suitable, but other guidance documents that could be relevant to the traffic and transport element of the environmental assessment process could include:

- Institute of Environmental Management and Assessment (IEMA) Guidelines for Environmental Impact Assessment (IEMA 2004);
- Guidance on Transport Assessment (DfT 2007).

The Transport Assessment (TA) will have cross-boundary impacts into other local authority areas. To that extent the scope of the TA will need to be agreed with North Somerset Council, Bristol City Council (BCC), Bath and North-East Somerset Council (BANES) and Highways England (HE). The ES should include details of the consultees who will be engaged in the EIA process and clarify the roles and responsibilities of each party involved in the scoping of both the EIA and the TA.

Section 5.1.2 details the list of consultees that will input to the scope of the TA. To provide additional clarity, the Environmental Statement could include details of roles and responsibilities of each party involved in the scoping of both the EIA and the TA to allow a clear understanding of the decision-making framework. The Scoping Report states that the TA will include *‘a full multi modal impact assessment, which will consider the proposed development on all relevant transport infrastructure surrounding Bristol Airport.’* Section 5.5.1 states *‘The TA will undertake an assessment of a wide study area which will be established following consultation with the surrounding local councils and HE. A more localised study area for the assessment of traffic and transport effects may be considered appropriate for the EIA based on the area where significant effects are considered likely to arise’* It is not clear from the Scoping Report what the study area for the environmental assessment will be, clarification on the study area (to be considered within the EIA) should be sought. Section 5.5.3 describes some of the information that will be described in the baseline conditions sections of the environmental assessment. The information could be expanded further to consider a wider public transport network (including air connections); and should also include details of sensitive receptors e.g. residential properties, schools and care homes and non-motorised user (NMU) networks).

The Scoping Report states that the TA will include *‘a full multi modal impact assessment, which will consider the proposed development on all relevant transport infrastructure surrounding Bristol Airport.’* Section 5.5.1 states *‘The TA will undertake an assessment of a wide study area which will be established following consultation with the surrounding local councils and HE. A more localised study area for the assessment of traffic and transport effects may be considered appropriate for the EIA based on the area where significant effects are considered likely to arise’* It is not clear from the Scoping Report what the study area for the environmental assessment will be, clarification on the study

area (to be considered within the EIA) should be sought. Section 5.5.3 describes some of the information that will be described in the baseline conditions sections of the environmental assessment. The information could be expanded further to consider a wider public transport network (including air connections); and should also include details of sensitive receptors e.g. residential properties, schools and care homes and non-motorised user (NMU) networks).

Section 5.6.2 to 5.6.8 detail the significant effects that are proposed for further assessment. These effects should include both construction phase and operational phase impacts.

Section 5.6.12 details the traffic scenarios to be included within the assessment. It is noted that 2018 is proposed as the baseline, clarification could be sought as to how this relates to the proposal to include consented and permitted development within the baseline (refer to Section 2.2 of this report).

Tables 5.1 and 5.2 describe the criteria to be used to indicate the receptor sensitivity and significance of impacts. No information is included within the Scoping Report to describe the criteria for assigning magnitude of impact to different receptors. Section 5.6.15 states *'A scale of magnitude will be outlined in the transport chapter for relevant effects. The magnitude of effects will be assessed, where appropriate, against a scale divided into 'very high', 'high', 'medium', 'low' and 'very low' magnitude'*

The y axis heading of a significance matrix (i.e. Table 5.2) would usually be *'magnitude of effect'* rather than *'magnitude of change'*.

DMRB Volume 11 Section 2 Part 15 could be referred to, in order to provide further details of description of significance of *effects*.

Chapter 5 – *Traffic and Transport* does not refer to any Figures. Inclusion of and reference to

Movement of Hazardous loads is scoped out of further assessment (Section 5.6.10 states *'Hazardous loads which could potentially be generated by the Proposed Development will be managed in accordance with the relevant legislation and best practice guidance'*) The Section does not detail what hazardous loads could be associated with the proposed development, nor does it set out what best practice guidance will be adopted. Further information should be requested on the potential for Hazardous loads and consideration may need to be given to these in other area of the EIA (e.g. in relation to Human Health). It does however, appear reasonable to conclude that assuming any such loads are moved in accordance with relevant best practice and legislation there is unlikely to be a potential for significant environmental effects.

### Noise and Vibration

Chapter 6 - Refers to most of policies at both a local and national level although some are missing, mainly those relating to health, such as:

1. Airports noise effects on health. Airports Commission, 2015.
2. Survey of noise attitudes 2014: Aircraft. Civil Aviation Authority, 2017.
3. Aircraft noise and annoyance: Recent Findings. Civil Aviation Authority, 2018.
4. Respite from Aircraft Noise: Overview of recent research. Heathrow Airport Ltd., 2017.

The Scoping Report does not identify that an assessment of likely compliance with all identified plans and policies will be undertaken. The Scoping Report does identify that the assessment will take account of the Noise Policy Statement for England (NPSE), however it should also demonstrate compliance with the three aims of the NPSE.

The methodology for assessment is for the most part clearly set out and appropriate. The following should be considered when drafting the ES:

- It is not stated how a zone of influence will be defined for ground noise.
- In addition, defining a surface transport zone of influence based on a Lowest Observable Adverse Effect Level (LOAEL) is not best practice. If this approach is adopted it will need to be explained and justified.
- An assessment of road traffic noise needs to consider the wider road network, not just the A38. That may be the main route to the airport, but it is not the only route. The TA should consider the distribution of travel routes to and from the airport and how this will be affected by the proposal in terms of its noise impacts on residential amenity, wildlife and landscape character.
- The assessment will need to define and justify an appropriate study area.
- The assessment of ground noise needs to consider the cumulative impact, as there will also be air noise at the same time.
- The methodology used to assess the magnitude and significance of impacts is not stated and clearly defined, all assessments will need to be compared against a defined SOAEL.
- The chapter includes reference to and has made use of appropriate technical guidance for the subject.
- The scope of ground-based noise sources will need to be defined and how these will be affected by the proposal. This should include aircraft taxiing to and from stands and pre-flight procedural operations.
- It is noted that BAL do not intend to increase the number of 'night-time' flights per annum, which is limited to 4000, but they do wish to include greater flexibility to their distribution, which is restricted to 3000 in the summer time and 1000 in the winter time. If this leads to a higher concentration of night-time flights in the summer season, which is when more residents may choose to sleep with windows open, the potential impacts on sleep disturbance and human health should be examined.
- The use of the additional Multi-Storey Car Park has the potential to cause noise disturbance to nearby residents. This should be assessed in the ES.
- The noise assessment should consider seasonal and hourly differences in impacts and present a worse-case scenario.

### Landscape and Visual Impact Assessment

In landscape terms, the key components are likely to be the multi-storey car park extension to the west, the extensions to the passenger terminal and the extended pier and walkway to the east, car park extensions (some lit) and to a lesser extent taxiway changes

and gyratory road alterations (particularly associated lighting impacts). As most sensitive receptors lie to the north of the airport, it is important to ensure that the assessment takes adequate account of this.

There are currently 10 representative viewpoints in the scoping report set out at Table 8.2 and set out on the location plan at Figure 8.4. Six are in the immediate vicinity of the airport, with four more distant views from the south. The viewpoints are suitable, but the scope should be extended to include other important viewpoints. To improve the representative coverage around the airport, viewpoints from Hyatt's Wood Road (or further public footpaths leading off it to the west), Cooks Bridle Path / Winters Lane and the A38 should also be considered. Further view points from inside the Mendip Hills AONB should also be considered including: the Iron Age hill fort of Dolebury Warren (SSSI and SM) and Burrington Ham (SSSI and SM), both of which are open access land.

Photomontages should be included to show 3 aspects:

1. The impact of the extended multi storey car parking area and alterations to the front / west side of the terminal building. This could be picked up from one or more key elevated viewpoints north of the site.
2. The changes to the east end of the terminal, including, new pier building and altered taxiway. This could be picked up from the Potters Hill viewpoint, or possibly the A38.
3. The changes to the south side of the terminal, where visible from the A38.

The proposed gyratory road is closer to properties at Lulsgate Bottom. Whilst there is generally a good level of existing screening here, lighting changes (amongst other factors, such as noise) will need careful consideration at a local level.

In terms of the night time baseline viewpoints, a view from the Mendip Hills, views from the north such as Hyatt's Wood Road and Potters Hill, also A38 south east of the airport should be considered. These viewpoints and other identified should consider the impact of additional lighting (impact on Dark Skies) and the ways in which this can be mitigated and preferably reduced.

These matters should be discussed and agreed with the LPA before the ES is finalised.

### Biodiversity

The proposed impact assessment methodology, scope of surveys and implementation of the mitigation hierarchy is in accordance with best practice guidance. The commitment to meeting the recently adopted North Somerset and Mendip Bats Special Area of Conservation (SAC) SPD is supported.

There are however some omissions from the scope (as below) which will require further consideration. Any justification for not including the following would need to be provided, based on supporting evidence:

- 1) It is identified in Section 3.4.2, that the Chew Valley Special Protection Area (SPA) is within 10km (6.6km east). In addition, the Severn Estuary SPA, SAC and Ramsar site is 11km to the west. Blagdon Lake 3.6km is also a SSSI designated in part due to important bird assemblages. Potential disturbance to bird populations at these sites because of air traffic has not been identified in Section 9 (Biodiversity). During a site visit for an evidence review for the England Coastal Path, the passage of planes overhead caused disturbance to birds on the Estuary, displacing wetland birds. The magnitude and frequency of this

impact is unclear as this was an anecdotal report. The potential for disturbance to wetland bird populations associated with increased air traffic (visual impact i.e. perceived predation risk and noise) needs to be considered in relation to the SPAs and associated bird assemblages. At the time of preparing this report it is understood that BAL are discussing this matter with the Council's Ecological Consultant. An agreement should be reached on this point before the ES is completed.

2) The proposed bat monitoring schedule is welcomed. As July is the key maternity period for greater horseshoe bats, static monitoring during this period should be completed. There is often a peak in activity in July found during monitoring for development sites within the juvenile sustenance zone around the SAC.

3) Climbing inspections of trees with bat roost potential are welcomed. The survey methodology detailed in *Bat Surveys for Professional Ecologists – Good Practice Guidelines* 3<sup>rd</sup> Edition (Collins Ed., 2016) should be followed. This should include multiple visits to high risk trees and emergence/re-entry surveys if features cannot be fully inspected.

4) The NVC survey is welcomed. Any areas of priority habitat will need to be identified clearly on mapping. The potential impacts on priority habitats will need to be quantified and specified in the ES. A table showing habitat present, habitat retained, habitat lost, and habitat created/enhanced would be of use. The species-rich A38 verge will need to be included in the survey if this will be impacted. At the time of preparing this report it is understood that BAL are discussing this matter with the Council's Ecological Consultant. An agreement should be reached on this point before the ES is completed.

5) Notable species should include Section 41 priority species and notable species for the Bristol region. Potentially important habitats should be assessed against the Section 41 priority habitat and Local Wildlife Site criteria where relevant.

Preparation of an Evidence Plan for the Habitats Regulations Assessment/Appropriate Assessment would be welcomed. As detailed above, the scope of the HRA/Appropriate Assessment may need to consider the Chew Valley SPA and Severn Estuary SPA/SAC if there may be potential impacts on these sites. Although NSC and Natural England will need to prepare and approve the final HRA/Appropriate Assessment, it is NSC's standard practice for the applicant to provide a shadow HRA. A template can be provided. The recent *People Over Wind* and *Sweetman* CJEU judgement will need to be taken into consideration.

Within the North Somerset and Mendip Bats SPD, compensation for loss of horseshoe bat habitat is expected to be provided to ensure that Favourable Conservation Status is maintained. Compensation should be based on the Habitat Evaluation Procedures detailed in Annex 5 of the SPD. As based on the mitigation hierarchy, avoidance (retention) should be considered in the first instance, with mitigation and then compensation if there is no satisfactory alternative. On-site compensation should be considered before off-site compensation. As well as direct removal of habitats, foraging areas or flight lines subject to light spill of more than 0.5 lux or significant fragmentation will need to be considered unsuitable for horseshoe bats for the calculations.

## Surface Water and Flood Risk

The site lies within an Environment Agency Source Protection Zone 2, and a low risk area for ground water flooding. Notwithstanding this, localised flooding has been recorded at the following locations near to the airport:

- On the corner of Cooks Bridle Path and Downside Road, which includes both garden and highway flooding
- On the A38 between the airport roundabouts
- At the Airport Tavern Lulsgate Bottom in 2012

It is important that sustainable drainage principles should be applied to the site. British Geological Survey infiltration map suggests that that infiltration will be possible, however due to the source protection zone pollution control may be required, this should be confirmed with BRE 365 infiltration tests in the location of any proposed soakaways. Guidance on sustainable drainage should be followed and the Council recommend that where possible drainage is integrated into the green infrastructure spaces <https://www.n-somerset.gov.uk/wp-content/uploads/2015/12/West-of-England-sustainable-drainage-developer-guide.pdf>

Any watercourse (rhine) network should remain open and allow easy access for maintenance and inspections, any EIA should assess the environment in and around the network. There must be no interruption to the surface water drainage system of the surrounding land because of the development. Provisions must be made to ensure that all existing drainage systems continue to operate effectively and that land owners upstream and downstream of the site are not adversely affected, therefore any EIA should assess the influence flooding might have on the environment both on site and on neighbouring land.

## Ground Water

Despite there being no surface water courses close to the airport, streams at the edge of 'Broadfield Down' are maintained by groundwater base flow. Any development at the airport has the potential to impact on groundwater quality, which in turn could impact on surface waters. A statement to this effect should be included and the risk appropriately determined as part of the ES.

In paragraphs 11.5.23 & 11.5.26 it is indicated that there are no private water supplies within 2km of the site. This should be substantiated, and it should be clarified whether a water interest survey has been undertaken across the area to determine this. If it has not it cannot be assumed that there are no such interests. The Local Authority records should be checked as they will be complete and list all such sources.

The ES should demonstrate that the development is designed to reduce the risk from foul drainage. This may result in the need for further treatment to reduce the risk to groundwater body and associated receptors. The airport design and infrastructure should also be resilient to climate change. This might require the upgrade of soakaways, interceptor capacity etc. to reflect any changes in rainfall run-off etc.

## Human Health



The scope and methodology of the health section is generally satisfactory, but further reference particularly to noise impacts on health and wellbeing strategies could be improved.

### Carbon and Green House Gas Emissions & Climate Change

A critical review of the climate change aspects associated with the proposed development has been undertaken. The review focuses on Chapter 17 - *Carbon and other greenhouse gas emissions* and Chapter 18 *Climate Change* of the Scoping Report.

All relevant key aspects of legislation and planning policies relevant to climate change and greenhouse gas (GHG) emissions reporting and assessment are clearly set out and summarised in the report. Updates considering the new NPPF should be included. The following additional references should be considered when drafting the ES:

1. The United Kingdom EIA Regulations (2017) which note that an EIA should identify, describe and assess the direct and indirect significant effects of a project on climate. This should include the assessment of the project effects on climate (e.g. GHG emissions), the interaction between climate and other factors (such as biodiversity, heritage, health, land, soil, water and air), in combination with the project and the vulnerability of the project to climate change and the impacts relevant to adaptation.
2. The Institute for Environmental Management and Assessment (IEMA) EIA Guide to Climate Change Resilience and Adaptation (2015). It should be noted that this guidance is currently being reviewed and updated. Should this be available at the time of the ES, it should be included.

In general, a systematic approach, in line with relevant technical guidance has been adopted in the assessment of GHGs and climate change. The following comments should be considered in drafting the ES:

1. The Zone of Influence for GHG emissions is noted as the Earth system. Although it is recognized that GHG emissions can produce effects on a global scale, the assessment should focus on national, regional and local environments and how an increase in greenhouse gases may impact these (e.g. agricultural areas, habitats, etc.). This can be further detailed in relevant topic chapters, but it should be noted in this section.
2. While the presented methodology and assessment of GHG emissions is acceptable, the calculated baseline greenhouse gases and those associated with the development should be compared against the relevant UK Carbon budgets, highlighting any increases that may impact on the ability of the government meeting its carbon reduction targets. This should be considered across all project phases, and opportunities identified to minimise the generation of greenhouse gases.
3. It is noted that potential receptors will include those that are scoped in for other topics, provided they have the potential to be impacted on by a climate hazard. In the ES, consideration for receptors throughout the project lifecycle should be given, this includes but not limited to construction (workforce, plant, machinery), Assets and their operation, maintenance and refurbishment and the end user (members of the public / passengers).
4. The impacts on receptors should be identified using the latest climate projections data (currently UKCP09, as presented in the report). Reference is made to UKCP18, which is due to be released in November 2018. It is noted in the ES that this will not be available in time to inform the ES for the development. Should this change, UKCP18 should be used in

place of UKCP09. The vulnerability of the project should be assessed in term of both normal and extreme weather-related disaster scenarios throughout the project lifecycle.

5. It is noted that there will not be a separate chapter dealing with climate change in the ES, but rather the in-combination climate change impacts will be incorporated into relevant topic chapters and the climate change resilience considerations into the design report. While it is noted that the current IEMA guidance on climate resilience does not give direction on how this should be approached, it is understood that the guidance is being reviewed. Depending upon when the planning application for 12mppa is submitted there may or may not be guidance published to inform whether Climate should form a separate chapter. BAL should review this matter.

It is noted that all assessments pertaining to identified impacts within relevant topics will be discussed in the topic chapters, which will include the impact of seasonal patterns on habitats (Biodiversity chapter). However, the interaction between climate change and land quality, socio-economics and GHG will not be further considered in the assessment, as it is noted that these topics are likely to have no impacts that can be affected by climate change. This should be reconsidered, as climate change have the potential to impact land quality and land use, with knock-on effects resulting in socio-economic impacts and GHG depending on the activity (i.e. additional power generation for cooling processes).

Table 17.1 - Reference to local policy and the Climate Local Commitment – this needs to be updated to include the 2018 version, which now includes a carbon reduction target of 50% reduction in emissions by 2035 (from 2014 baseline): <https://www.n-somerset.gov.uk/my-services/planning-building-control/planningpolicy/supplementary-planning-advice/guidance/climate-change/>

17.5.8 – A reference should be provided to show where in the provisional GHG statistics, it says that the UK is on course to meet all carbon budgets and the 2050 target of an 80% reduction in emissions.

17.6.13 – UK Green Construction Board Low Carbon route map (2013) contains quite a few out-of-date references e.g. Code for sustainable homes, Zero Carbon Homes and Green Deal. These should be updated.

Table 18.1 – reference should be made to the Building Resilience to extreme weather and Climate Change in North Somerset Report (2011)

## **Conclusions and Cumulative Impacts**

Overall the chapters reviewed appear to meet regulatory requirements. However as described there are some aspects that could be improved / clarified with the provision of further information as detailed above.

Table 19.1, Chapter 19 *Summary*, provides details of the potential effects that have been scoped out of further consideration. This table is consistent with the details provided in Chapter 5 – *Traffic and Transport* and Chapter 18 – *Climate Change*.

However, it is noted that Table 19.1 details that the '*Potential effects from operational noise or vibration by aircraft, road traffic or construction activities upon human and non-*

*human receptors* are scoped out of further assessment. This conflicts with Section 6.6.3, Chapter 6 – Noise, which states: *‘At this point in time, no aspects of noise or vibration from operational activities by aircraft at Bristol Airport, or from road traffic or construction activities related to the Proposed Development are considered to not require further assessment.’* Clarification should be provided on this matter.

Section 20.1.1 details the Chapters to be considered within the ES. Chapter 18 is proposed to be *Cumulative Effects*. Cumulative effects, in particular, the potential for impacts on the Severn Estuary is likely to be an important aspect of the EIA (reported in the ES; and further consideration of the developments to be considered within the Cumulative Effects Assessment may be required to ensure that all developments are fully considered.

It is noted within some of the technical chapters of the scoping report that the applicant proposes to consider cumulative impacts: Section 5.6.6 states: *‘The majority of impacts are likely to affect the immediate local area, including the A38. The impact assessment will also consider the cumulative transport-related impacts from committed developments (e.g. approved development schemes and surrounding allocated development sites). The relevant local authorities and HE will be consulted on the committed schemes to be included in the cumulative assessment.’*

Section 9.6.18 states: *‘Developments to include in the cumulative assessment will be assessed on national guidance and in agreement with NSC’*

However, there is no proposed list of developments to be included within the cumulative effects assessment; and no methodology is provided. Further information should be provided and the list of developments to be included within inter-relationships between different subject matters (such as noise and human health for example) and the cumulative effects assessment should be agreed before the ES is prepared.

### **Recommendation:**

Subject to the provisions in this report, it is recommended that the Environmental Impact Assessment scoping report is adopted.

In recommending this application, I have taken into consideration the relevant policies of the Development Plan and the comments made by the consultees and other interested parties and the:

- Natural Environment and Rural Communities (NERC) Act 2006
- Crime and Disorder Act 1998
- Human Rights Act 1998.

Signed: Neil Underhay