

UTT/18/0460/FUL – STANSTED AIRPORT
Birchanger, Elsenham, Stansted, Takeley parishes

(MAJOR)

PROPOSAL: Airfield works comprising two new taxiway links to the existing runway (a Rapid Access Taxiway and a Rapid Exit Taxiway), six additional remote aircraft stands (adjacent Yankee taxiway); and three additional aircraft stands (extension of the Echo Apron) to enable combined airfield operations of 274,000 aircraft movements (of which not more than 16,000 movements would be Cargo Air Transport Movements (CATM)) and a throughput of 43 million terminal passengers, in a 12-month calendar period

LOCATION: Stansted Airport

APPLICANT: Stansted Airport Limited (STAL)

AGENT: Mr A Andrew, STAL

EXPIRY DATE: 30 November 2018

CASE OFFICER: Karen Denmark

1. NOTATION

1.1 Within Development Limits, Ancient Woodland, Local Wildlife Site, site covers area of Policies AIR1-7 in the adopted Uttlesford Local Plan (2005).

2. DESCRIPTION OF SITE

2.1 The application site relates to Stansted Airport, including all land airside and landside. Physical works are only proposed airside adjacent to the runway.

3. PROPOSAL

3.1 The proposal relates to the construction of a rapid access taxiway (RAT), a rapid exit taxiway (RET), and a total of 9 additional stands over two locations. These additional facilities would enable the optimal use of the runway, improving efficiency in the peak hours. The stands are required to provide overnight parking for home-based airlines. The proposal also seeks to uplift passenger numbers from the currently consented 35 million passengers per annum (mppa) to 43mppa.

3.2 The airport currently has planning permission for a total of 274,000 aircraft movements. This is restricted to no more than 243,500 passenger air transport movements (PATMs), no more than 20,500 cargo air transport movements (CATMs). There was a further condition limiting the number of “general aviation” movements to 10,000 per annum. This limit applies to aircraft not carrying “for hire or reward” passengers or cargo, or non-scheduled air transport services where the passenger seating capacity does not exceed ten.

3.3 This application does not propose to increase the number of aircraft movements from 274,000. Originally it sought a unified total of 274,000 which could have

consisted of any combination of flights. The Environmental Statement was carried out with a specific assumption of an increase in passenger flights to 253,000 PATMs in 2028 at 43mppa, with “other” flights being reduced to 5000 per annum. Officers sought clarification with regards to the description and it was subsequently confirmed that no more than 16,000 CATMs were proposed. This would permit 258,000 ATMs for passenger and/or general aviation movements.

4. ENVIRONMENTAL IMPACT ASSESSMENT

- 4.1 The application with an Environmental Statement in line with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. This consists of Volume 1 which is the Environmental Statement (ES) and two volumes of appendices. There is also a Non-Technical Summary (NTS).

Regulation 4(5) of those Regulations requires the local planning authority to ensure that they have, or have access as necessary to, sufficient expertise to examine the environmental statement.

In this regard, the case officer has worked in conjunction with:

officers from: Essex County Council (ECC), Hertfordshire County Council (HCC), East Herts District Council (EHDC), Place Services (ECC), Network Rail, Highways England (HE), Natural England, and UDC’s Environmental Health Manager (Protection), Senior Health Improvement Officer, and the Communities Manager.

Further expertise has been provided to ECC and HE by Jacobs and AECOM respectively.

Officers have also been advised by consultants from:

WYG (air quality) (WYG), and Bickerdike Allen Partners LLP (BAP).

Consultation advice has been given by:

Thames Water and Environment Agency (EA).

5. APPLICANT’S CASE

- 5.1 The application is also accompanied by a Transport Statement, a Planning Statement, Design and Access Statement, and a Statement of Community Involvement.

6. RELEVANT SITE HISTORY

- 6.1 (The 2008 Planning Permission, also referred to as Generation (Gen) 1): UTT/0717/06/FUL – Extension to the passenger terminal; provision of additional aircraft stands and taxiways, aircraft maintenance facilities, offices, cargo handling facilities, aviation fuel storage, passenger and staff car parking and other operational and industrial support accommodation; alterations to airport roads, terminal forecourt and the Stansted rail, coach and bus station; together with associated landscaping and infrastructure as permitted development under application UTT/1000/01/OP but without complying with condition MPPA1 and varying condition AMT1 to 264,000 ATMs. Refused 2006, allowed on appeal 2008.
- 6.2 (The 2003 Planning Permission): UTT/1000/01/OP - Extension to the passenger

terminal; provision of additional aircraft stands and taxiways, aircraft maintenance facilities, offices, cargo handling facilities, aviation fuel storage, passenger and staff car parking and other operational and industrial support accommodation; alterations to airport roads, terminal forecourt and the Stansted rail, coach and bus station; together with associated landscaping and infrastructure. Approved 2003.

- 6.3 UTT/1150/80/SA – Outline application for expansion of Stansted Airport by provision of new passenger terminal complex with capacity of about 15mppa east of existing runway, cargo handling and general aviation facilities, hotel accommodation, taxiways (including widening of proposed taxiway) to be used as an emergency runway), associated facilities (including infrastructure for aircraft maintenance and other tenants' developments) and related road access. Approved by Secretaries of State 5 June 1985.

7. POLICIES

The Development Plan - Uttlesford Local Plan (2005)

- 7.1 S4 – Stansted Airport Boundary
AIR1 – Terminal Support Area
AIR2 – Cargo Handling/Aircraft Maintenance Area
AIR3 – Southern Ancillary Area
AIR4 – Northern Ancillary Area
AIR5 – Long Term Car Park
AIR6 – Landscaped Areas
AIR7 – Public Safety Zone
GEN1 – Access
GEN3 – Flood Protection
GEN4 – Good Neighbourliness
GEN5 – Light Pollution
GEN6 – Infrastructure Provision to Support Development
GEN7 – Nature Conservation
ENV2 – Development affecting Listed Buildings
ENV4 – Ancient Monuments and Sites of Archaeological Interest
ENV7 – The Protection of the Natural Environment – Designated Sites
ENV9 – Historic Landscapes
ENV11 – Noise Generators
ENV12 – Protection of Water Resources
ENV13 – Exposure to Poor Air Quality

National Policies

- 7.2 NPPF (2018)
Planning Practice Guidance
- 7.3 Aviation Policy Framework (March 2013)
Beyond the Horizon: The future of UK aviation – Next steps towards an Aviation Strategy (April 2018)
Beyond the Horizon: The future of UK aviation (June 2018)

Other Policy

Regulation 19 Uttlesford Local Plan
The Spatial Vision: Theme 2 – Support Sustainable Business Growth
SP2 – The Spatial Strategy 2011 - 2033

8. CONSULTATION

- 8.1 The application has been advertised and two periods of consultation have been carried out, the first ending on 30 April 2018 and the second on 30 August 2018. The Council has also engaged proactively with statutory consultees. This report has had regard to consultation responses. In addition, the Council will be holding three sessions over two days of public speaking as part of a further consultation period. These are to be held on 6 and 7 November 2018.

9. APPRAISAL

The issues to consider in the determination of the application are:

- A The principle of the development
- B Surface Access and Transport
- C Air Noise
- D Ground Noise
- E Surface Access Noise
- F Air Quality
- G Socio-Economic Impacts
- H Carbon Emissions
- I Climate Change
- J Public Health and Wellbeing
- K Water Resources and Flood Risk
- L Non-significant Topics
- M Cumulative Effects
- N Other issues

A The principle of the development

- 9.1 The Local Plan sets out limits on the physical extent of the airport. Section 16 of the Plan sets out the background to the airport. The airport is within an area covered by Local Plan general Policy S4 which relates to the airport as a whole and includes the area of the application. S4 makes provision for individual area policies called development zones. The zones ensure that all airport direct and associated uses can be accommodated within the airport boundary. Industrial and commercial development unrelated to the airport will not be permitted on the site. The adopted Uttlesford Local Plan splits the airport into 6 separate policy sections. These policies, AIR1 to AIR6 relate to the types of development that will be permitted in each area of each of those policies, or not permitted in respect of Policy AIR6.
- 9.2 In terms of physical development, the proposed rapid access taxiway (RAT) and rapid exit taxiway (RET) and aircraft stands fall within the area covered by Policy S4 and outside the development zones. The adopted policy is silent in terms of specific development in this area although the extent of its coverage does support development directly related to or associated with Stansted Airport. Policies AIR1 to AIR6, whilst applying to different areas of the airport, are not specifically relevant to the proposals in this application.

- 9.3 The NPPF (2018, paragraph 213, requires that due weight be given to existing local policies according to their degree of consistency with that Framework. NPPF paragraph 104 requires planning policies (e) 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. Paragraph 104(f) requires planning policies to recognise the importance of maintaining a national network of general aviation (GA) airfields, and the Government's General Aviation Strategy. The Local Plan, paragraph 1.2, makes clear that because Stansted Airport is in Uttlesford, national airports policy is particularly significant to the District. Policy S4 provides for Stansted Airport but does not itself provide for infrastructure required to support its intensified operation, expansion and contribution to the wider economy. Policy S4 and the development zone Policies AIR1-6 have been assessed as being in accordance with the NPPF and can be afforded full weight, subject to their compliance with the government's policy in respect of aviation.
- 9.4 The NPPF (2018) is a material consideration. It establishes the presumption of sustainable development. The three overarching strands, economic, social and environmental objectives, are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives).
- 9.5 Whilst the NPPF has a balanced view towards sustainable development, the Aviation Policy Framework and the governments approach towards aviation development in general, recognises that there is the potential for environmental impacts which would need to be weighed against the social and economic benefits of such proposals.
- 9.6 As referred to above, the Local Plan, paragraph 1.2 informs the background of Policy S4 and makes clear that because Stansted Airport is in Uttlesford, national airports policy is particularly significant to the District. The particularly significant national airports policies are the Aviation Policy Framework (2013) and the recent "Beyond the Horizon" (June 2018).
- 9.7 The Aviation Policy Framework (2013) (APF) is a material consideration (see paragraph 5.6) and refers to Stansted Airport (see, for example, paragraph 1.41). Paragraph 1.60 states the government's "strategy for a vibrant aviation sector: short term" comprising a suite of measures focused on: making best use of existing capacity; encouraging new routes and services; better integrating airports into the wider transport network.
- 9.8 The APF recognises the role the aviation industry has in the economy, helping to deliver connectivity. Aviation is recognised for bringing benefits to society and individuals, including travel for leisure and visiting family and friends. One of the main objectives of that Framework is to ensure that the UK's air links continue to make it one of the best connected countries in the world so that it can compete successfully for economic growth opportunities.
- 9.9 Paragraphs 5 to 10 state the benefits of aviation. Paragraph 10 sets out the short to medium term priority of making better use of existing runway capacity at all UK airports. However, this expansion should not happen at any cost and it is recognised that this needs to be a balanced approach with the economic benefits being weighed against the environmental impacts. In particular, the APF highlights contributing to reducing global emissions, limiting noise and better industry/stakeholder collaboration.

- 9.10 In April 2018, the government published its response to its call for evidence in July 2017 on its emerging aviation strategy, and in June 2018, it published a document setting out its current position on making best use of existing runways. The April 2018 document is entitled “Beyond the horizon: The future of UK aviation. Next steps towards an Aviation Strategy”. The June 2018 document is entitled “Beyond the horizon: The future of UK aviation. Making best use of existing runways” (BTH June 2018).
- 9.11 BTH June 2018, paragraph 1.4 referred to Stansted at paragraph 1.4, footnote 2. The government “Policy Statement” is at paragraphs 1.25-1.29. The Policy Statement is a material consideration. Paragraph 1.26 states:
- “Airports that wish to increase either the passenger or air traffic movement caps to allow them to make best use of their existing runways will need to submit applications to the relevant planning authority. We expect that applications to increase existing planning caps by fewer than 10 million passengers per annum (mppa) can be taken forward through local planning authorities under the Town and Country Planning Act 1990. As part of any planning application airports will need to demonstrate how they will mitigate against local environmental issues, taking account of relevant national policies, including any new environmental policies emerging from the Aviation Strategy. This policy statement does not prejudice the decision of those authorities who will be required to give proper consideration to such applications. It instead leaves it up to local, rather than national government, to consider each case on its merits.”*
- 9.12 Paragraph 1.27 states that applications to increase caps by 10mppa or more or deemed nationally significant, would be considered under the Planning Act 2008. The application is to increase the cap by less than 10mppa and is to increase the cap by 8mppa (from 35mppa to 43mpp). At the time of writing this report, a third party called “Stop Stansted Expansion” (SSE) has made a claim for judicial review of a decision by the Secretary of State to not direct that the application be deemed to be a nationally significant infrastructure project.
- 9.13 Paragraph 1.29 develops the APF (2013) strategy measure of making best use of existing capacity into a more recent particular statement of policy on best use in bold that:
- “Therefore, the government is supportive of airports beyond Heathrow making best use of their existing runways. However, we recognise that the development of airports can have negative as well as positive local impacts, including noise levels. We therefore consider that any proposals should be judged by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations. This policy does not prejudice the decision of those authorities ...”*
- 9.14 The BTH (June 2018) Policy Statement is evidence based and was consulted on. It can be given full weight. The Policy Statement supports making best use of existing capacity having regard to all relevant considerations.
- 9.15 Current information that the Council has indicates that the emerging Aviation Strategy Green Paper will be published for consultation in late autumn.
- 9.16 The Airports National Policy Statement (2018) (ANPS) has been presented to Parliament under the Planning Act 2008 and for the purposes of nationally

significant infrastructure projects seeking consent under that Act. It recognises the capacity problems at airports in London and the South East. This is starting to result in adverse impacts on the UK economy, and affecting the country's global competitiveness (paragraph 1.2).

9.17 Paragraph 1.12 states that:

“The Airports NPS provides the primary basis for decision making on development consent applications for a Northwest Runway at Heathrow Airport, and will be an important and relevant consideration in respect of applications for new runway capacity and other airport infrastructure in London and the South East of England.”

9.18 Paragraph 1.41 states, however:

“The Airports NPS does not have effect in relation to an application for development consent for an airport development not comprised in an application relating to the Heathrow Northwest Runway, and proposals for new terminal capacity located between the Northwest Runway at Heathrow Airport and the existing Northern Runway and reconfiguration of terminal facilities between the two existing runways at Heathrow Airport.”

9.19 Paragraphs 1.38-1.39 also explain the relationship of the NPS policy with the APF (2013). Paragraph 1.38 states:

“The Airports NPS sets out Government policy on expanding airport capacity in the South East of England, in particular by developing a Northwest Runway at Heathrow Airport. Any application for a new Northwest Runway development at Heathrow will be considered under the Airports NPS. Other Government policy on airport capacity has been set out in the Aviation Policy Framework, published in 2013. The Airports NPS does not affect Government policy on wider aviation issues, for which the 2013 Aviation Policy Framework and any subsequent policy statements still apply.”

9.20 Paragraph 1.39 then states:

“On 21 July 2017, the Government issued a call for evidence on a new Aviation Strategy.²² Having analysed the responses, the Government has confirmed that it is supportive of airports beyond Heathrow making best use of their existing runways. However, we recognise that the development of airports can have positive and negative impacts, including on noise levels. We consider that any proposals should be judged on their individual merits by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts.”

Footnote 22 identifies: *“the new Aviation Strategy as “Beyond the Horizon: The Future of Aviation”.*

9.21 Paragraph 1.42 states:

“As indicated in paragraph 1.39 above, 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 findings of the Airports Commission on the need for more intensive use of existing

infrastructure as described at paragraph 1.6 above, 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 Northwest Runway at Heathrow. As indicated in paragraph 1.39 above, the Government's policy on this issue will continue to be considered in the context of developing a new Aviation Strategy."

- 9.22 At a general level, the APF (2013) set out the Aviation Forecasts in paragraphs 1.50 – 1.56 and paragraph 1.54 concluded that the major South East Airports would be likely full by 2030, and possibly either later or sooner.
- 9.23 More recently and also at a general level, Section 2 of the ANPS (July 2018) sets out the overall need for additional airport capacity in the UK in overall terms (see paragraphs 2.9 and 2.33). Section 2 is a material planning consideration. Section 2 highlights the overall economic benefits of both air freight and tourism. Paragraphs 2.10-2.18 explain the need for new airport capacity. It considers that aviation demand is likely to increase significantly between now and 2050. All major airports in the South East are expected to be full by the mid-2030s, with four out of the five full by the mid-2020s. Demand is expected to outstrip capacity by at least 34% (paragraph 2.12). The government states that not increasing capacity would be damaging to the economy and result in negative impacts on passengers (paragraphs 2.16-17).
- 9.24 The ANPS also refers to the work of the Airports Commission which published its final report in July 2015. In line with paragraph 2 of the APF, Paragraph 2.28 of the ANPS states:
- "The Commission's remit also required it to look at how to make best use of existing airport infrastructure, before new capacity becomes operational. The Commission noted in its final report that a new runway will not open for at least 10 years. It therefore considered it imperative that the UK continues to grow its domestic and international connectivity in this period, which it considered would require more intensive use of existing airports other than Heathrow and Gatwick."*
- 9.25 The BTH (June 2018), paragraph 1.4, explains that the 2017 forecasts by the Department for Transport, include London airports including Stansted, and "reflect the accelerated growth experienced in recent years and that demand was 9% higher in London in 2016 than the Airports Commission forecast. This has put pressure on existing infrastructure...". The Department "UK Aviation Forecasts" (October 2017), paragraph 1.3, states that the "purpose of these forecasts is primarily informing longer term strategic policy rather than providing detailed forecasts at each individual airport in the short term; the uncertainty reflected by future demand growth scenarios at the national level is compounded at the level of the individual airport", and the forecasts are provided for continuity and transparency of forecasting methodology.
- 9.26 It is reasonable to consider that the requirement for more intensive use of other airports, such as Stansted, by making best use of their infrastructure, is a government imperative based on evidence and consultation and so can be given significant weight here.
- 9.27 The Regulation 19 Uttlesford Local Plan is a material consideration. It carries limited weight at the present time due to it being at an early stage in the plan-making process. Furthermore, a further period of consultation is due to be undertaken between 16 October and 27 November 2018 on an Addendum of

Focused Change covering three issues, none specifically related to this proposal. The Spatial Vision identifies the importance of Stansted Airport in the London Stansted Cambridge Corridor. This also states that the environmental impact of London Stansted Airport will be effectively managed. It further sets out the need for safe and affordable environmentally sustainable alternatives to the use of the car for access to and from the airport.

- 9.28 Theme 2 of the Regulation 19 Plan is to “Support Sustainable Business Growth”. This aims to accommodate development by utilising the permitted capacity of the existing runway and provide for the maximum number of connecting journeys by air passengers and workers to be made by public transport. It also aims to ensure that appropriate surface infrastructure and service capacity will be provided without impacting on capacity to meet the demands of other network users (such as commuters) and enabling local residents to access rail, bus and coach services to and from the airport.
- 9.29 Policy SP2 states that “Sustainable growth of London Stansted Airport will be supported in principle, subject to conformity with the environmental and transport framework set out in Policy SP11 – London Stansted Airport.”
- 9.30 Policy SP11 is broken up into different sections, not all of which directly relate to this application. The sections relevant to this application are:

“Policy SP 11: London Stansted Airport

Sustainable growth of London Stansted Airport will be supported in principle and is designated as a Strategic Allocation in the Local Plan. The Strategic Allocation (see Policies Map) includes land within the existing airport operational area and incorporates the North Stansted Employment Area. The wider strategic allocation serves the strategic role of London Stansted Airport and associated growth of business, industry and education, including aviation engineering, distribution and service sectors and the airport college which are important for Uttlesford, the sub-regional and national economy.

Access to London Stansted Airport

London Stansted Airport’s role as a national, regional and local transport interchange will be maintained. The necessary local and strategic transport infrastructure and rail, coach, bus, pedestrian and cycle capacity to accommodate the passenger and employee trips and other journeys via connections at the airport must be maintained and enhanced. An integrated approach must be demonstrated within the framework of a surface access strategy.

To assist development of new rapid transit options between the airport and new and existing communities, land will be safeguarded to allow access at the terminal. The council will seek financial contributions from the airport operator for the delivery of an appropriate scheme.

Airport Development

Proposals for the development of the airport and its operation, together with any associated surface access improvements, will be assessed against the Local Plan policies as a whole. Proposals for development will only be supported where all of the following criteria are met:

1. *They are directly related to airport use of development, apart from within the North Stansted Employment Area;*
2. *They contribute to achieving the latest national aviation policies;*
3. *They are in accordance with the latest permission;*
4. *Do not result in a significant increase in Air Transport Movements or air passenger numbers that would adversely affect the amenities of surrounding occupiers, or the local environment or transport networks (in terms of, noise, disturbance, air quality and climate change impacts);*
5. *Achieve further noise reduction or no increase in day or night time noise in accordance with the airport's most recent Airport Noise Action Plan (approved by the Secretary of State on a five yearly basis);*
6. *Include an effective noise control, monitoring and management scheme that ensures that current and future operations at the airport are fully in accordance with the policies of this Plan and any planning permission that has been granted;*
7. *Include proposals which will over time result in a proportionate diminution and betterment of the effects of aircraft operations on the amenity of local residents and occupiers and users of sensitive premises in the area, such as through measures to be taken to encourage fleet modernisation or otherwise;*
8. *Incorporate sustainable transportation and surface access measures in particular which minimise use of the private car, and maximise the availability and use of sustainable transport modes and seek to meet modal shift targets, all in accordance with the London Stansted Sustainable Development Plan;*
9. *Incorporate suitable road access for vehicles including any necessary improvements required as a result of the development and demonstrate that the proposals do not adversely affect the adjoining highway network; and will not lead to detriment to the amenity of the area and neighbouring occupiers;*
10. *Be consistent with the latest Sustainable Development Plan for the Airport.*

London Stansted Airport Strategic Allocation

Development proposals at the London Stansted Airport Strategic Allocation will ensure:

15. *Appropriate strategic landscaping will be provided both on and off site, which shall have regard to the potential for significant visual prominence within the wider area of built development and which does not increase risk to aviation operations arising from structures, lighting, bird strike or open water and having regard to operational and national security considerations; and*
16. *The height and design of buildings will reflect the site's countryside setting, its visibility from surrounding countryside; and*
17. *Provision is made for sustainable drainage and the disposal of surface water in order to prevent any harm occurring to neighbouring land.*

Strategic Landscape Areas

*Development will not be permitted within those areas identified as strategic landscape areas on the Policies Map Inset." **

** (NB, the numbering does not match that in the Regulation 19 Plan as there has been a formatting error in the document)*

- 9.31 Members are reminded that the Regulation 19 Local Plan has not yet been submitted for examination and thus not tested for soundness. With regards to Draft Policy SP11 20 people/organisations have made comments on the policy. The key issues raised are:
- Whether it is possible in practice to have “sustainable growth” of London Stansted Airport.
 - Strengthening of the policy with a requirement for specific ongoing noise impact reduction and for Stansted to take responsibility for working with communities to reduce the community noise burden.
 - Concerns over the best way to word the criteria of the policy for Airport Development to be “in accordance with the latest permission”
 - Objection to the references to the Stansted Airport Sustainable Development Plan and Stansted Airport Noise Action Plan which are produced by Stansted Airport and UDC has no control over their contents and which could be inconsistent with UDC policy.
 - Objection to allowing off airport parking
 - Support for allowing off airport parking but object to aspects of criteria
- 9.32 As can be seen above, the adopted Uttlesford Local Plan Policy S4 makes no provision except in development zones for expansion of existing airport infrastructure at Stansted. The reasoned justification refers to the particular significance of national airports policy. The material consideration of the APF (2013) supports making better use of existing runway capacity and through measures to make best use of existing capacity. The most recent particular Policy Statement guidance, the BTH (June 2018), supports in paragraphs 1.25-1.29, making best use of existing runways, taking account of all relevant considerations. It is reasonable to attribute significant weight to the national policy of supporting best use of existing runways, whereas the APF offers general policy support for maximising the capacity of the airport at both local and national level, subject to the environmental impacts being managed or mitigated.
- 9.33 It is on this basis that the applicant is applying for an increase in passenger numbers from the permitted 35mppa to 43mppa. This would be achieved within the context of the currently permitted aircraft movements of 274,000. This limit is currently made up of 243,500 passenger aircraft movements (ATM), 20,500 cargo aircraft movements and 10,000 general aviation movements. However, it is proposed that the current caps become unified and include a maximum of 16,000 cargo aircraft movements.
- 9.34 The basis of the current annual caps is the 2008 Planning Permission (reference UTT/0717/06/FUL; appeal reference APP/C1570/A/06/2032278), granted by the joint decision of the Secretaries of State for Communities and Local Government and for Transport, and is subject to: condition MPPA 1, Passenger Throughout, caps that throughout to 35mppa; condition ATM1, Air Transport Movements, caps those movements at 264,000 ATMs, and condition ATM2 caps general aviation aircraft movements at 10,000; each cap applying in any twelve month period.
- 9.35 It is reasonable to consider that the 2008 Planning Permission is a realistic fall back position. The forecast demand for throughput show that it is likely that the 35mppa cap would be reached during 2022-23 (see figure 4.13 of the ES below).

- 9.36 Looking forwards, the BTH (June 2018) includes at paragraph 1.4 a summary of the Department for Transport “UK Aviation Forecasts” (October 2017), paragraph 1.3 of those forecasts makes clear that their “purpose ... is primarily informing longer term strategic policy rather than providing detailed forecasts at each individual airport in the short term; the uncertainty reflected by future demand growth scenarios at the national level is compounded at the level of the individual airport”.
- 9.37 Section 2 of the ANPS (July 2018) sets out overall level of need in particular between paragraphs 2.10 and 2.18 and addresses the alternatives at paragraphs 2.21, 2.2 and 2.28. Paragraph 2.22 states that the Airports Commission noted that “the need for make best use of existing infrastructure would remain” and 2.28 states that it is imperative to grow the domestic and international connectivity in the 10 years before a new runway at Heathrow was operational and that this would require more intensive use of existing airports.
- 9.38 The Department for Transport “UK Forecasts” referred to in paragraph 1.4 of BTH (June 2018) commence at a baseline 2016 with 24mppa identified at Stansted (Table 10) and address forecasts at 10 year increments: 2030, 2040 and 2050 but without intervening increments. Paragraph 1.4 states that “While the department aims to accurately reflect existing planning restrictions on the expansion of airports, the forecasts should not be considered a cap on the development of individual airports. In some circumstances, more recent airport specific data and forecasts might be used, in conjunction with additional relevant information, to inform planning decisions”.
- 9.39 MAG purchased Stansted Airport in 2013 and following that date it has recorded specific local information about it and seen rapid intensification: there has been an initial slow and recently a more rapid increase in passenger throughput. The Environmental Statement, Chapter 4, sets out Aviation Forecasts (February 2018) in annual increments to 2028, by an independent aviation specialist: ICF Aviation Services Group. Passenger numbers increased from 17.8m in 2013 to 24.3mppa in 2016. To the year ending July 2018, actual throughput was measured at 27mppa (7.3% up on the previous year) according to CAA data, being a higher percentage than the Department for Transport’s scenario forecasts. Data to 2016 is set out in Figure 4.5 in the Environmental Statement (see below).



Source: CAA

Figure 4.5: 1996-2016 Historical passenger growth at Stansted Airport (mppa)

(Reproduced from page 4-7 of Environmental Statement Volume 1)

- 9.40 Aircraft sizes have also increased over the years, with the average passenger aircraft size being 184 seats at Stansted in 2016. This had an average loading of 87%, around 160 passengers per PATM. This is an increase from 77% loading and 133 passengers per PATM since 2006. PATMs in 2016 were approximately 152,000 and CATMs were 14,000.
- 9.41 Forecasts were calculated assessing relationships between air travel demand and Gross Domestic Product (GDP). The post-Brexit Oxford Economics' central case was used. Demand was then allocated to the London airports based on a historical base of 2016, local catchment, existing network, and price and operational considerations. In terms of capacity, ES paragraph 4.7, bullet 1, notes that Heathrow is considered to be at capacity with no new runway being operational until 2030. Paragraph 4.47 notes that Gatwick is expected to reach its capacity of 300,000 ATMs (currently at 277,000 in 2016 (ES), and at 286,000 in June 2017 (Gatwick website)). Luton is currently capped at 18mppa with throughput of approximately 14.5mppa in 2016. London City airport is capped at 6.5mppa (throughput of approximately 4.5mppa in 2016). London Southend is assumed to be capped at 2mppa. Passenger throughput at Southend declined in 2016 to 875,549 from a previous high of 1.1mppa in 2014.
- 9.42 Figures 4.11 and 4.12 in the Environmental Statement sets out the passenger demand forecasts for the London airports. Comparison between the two shows a level of unmet demand in the London area from 2022, assuming existing constraints remain in place.

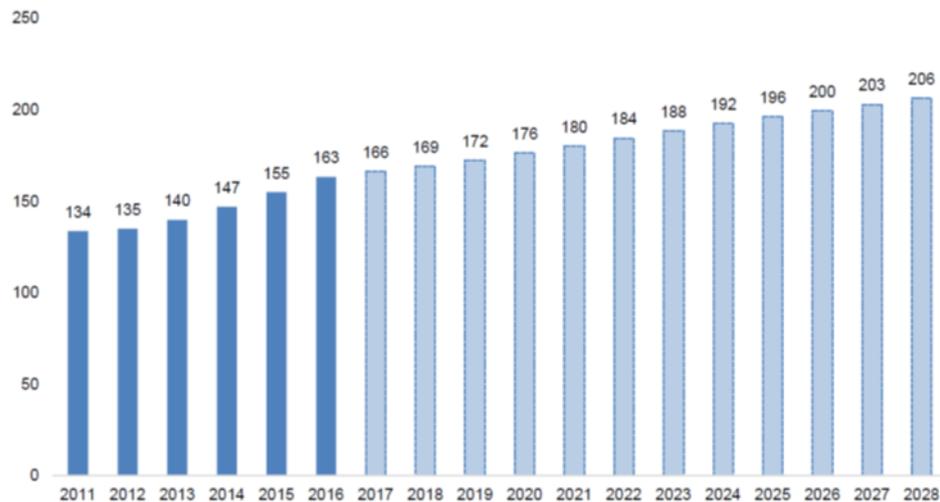


Figure 4.11: London passenger demand forecast (mppa, unconstrained)

(Reproduced from page 4-13 of Environmental Statement Volume 1)

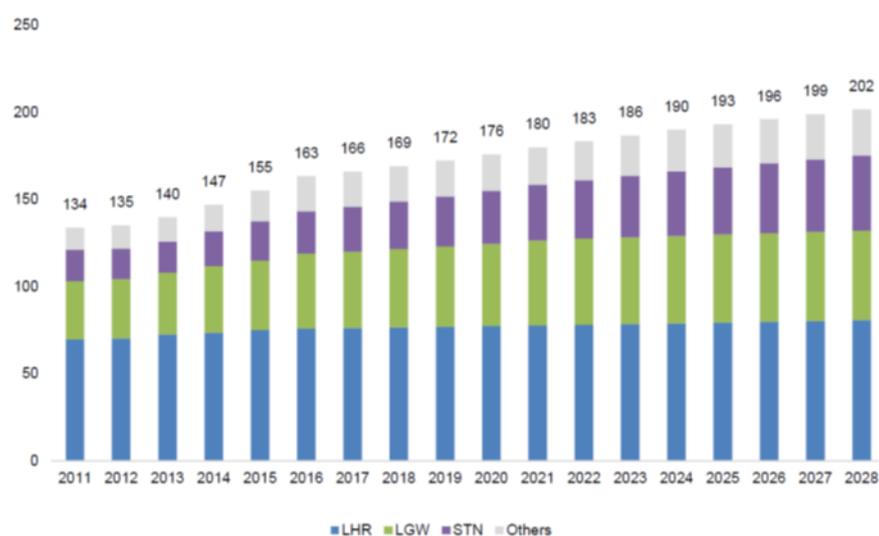


Figure 4.12: London passenger demand forecast (mppa, constrained)

(Reproduced from page 4-14 of Environmental Statement Volume 1)

- 9.43 The expected growth is envisaged to be accommodated by larger planes with the potential for average loadings to be 170 passengers per ATM in comparison to 160 at present. This would be coupled with long-haul route development.
- 9.44 The proposal includes the construction of a new RAT and RET and 9 additional aircraft stands. Paragraphs 4.15-4.19 of the Planning Statement set out the reasons for the additional infrastructure.
- 9.45 Principally, the RAT and RET provide facilities which would permit the optimisation of the runway. The runway is capable of handling large, wide body aircraft but the majority of aircraft are smaller narrow body aircraft. The layout of the runway does not provide for best use of the runway, requiring aircraft to have longer than necessary taxiing periods. The additional RAT and RET would

enable aircraft to enter and exit the runway at more optimal points. This would have additional benefits such as reduced fuel burn time, reduction in noise and pollution associated with that burn time and the taxiing movements.

9.46 The additional stands are required to provide for increased parking, typically overnight, in the busy summer periods. This will enable more airport-based aircraft to be operational in the peak morning period.

9.47 Figures 4.13 and 4.14 from the Environmental Statement show the proposed forecasts for passenger growth and ATM forecasts.

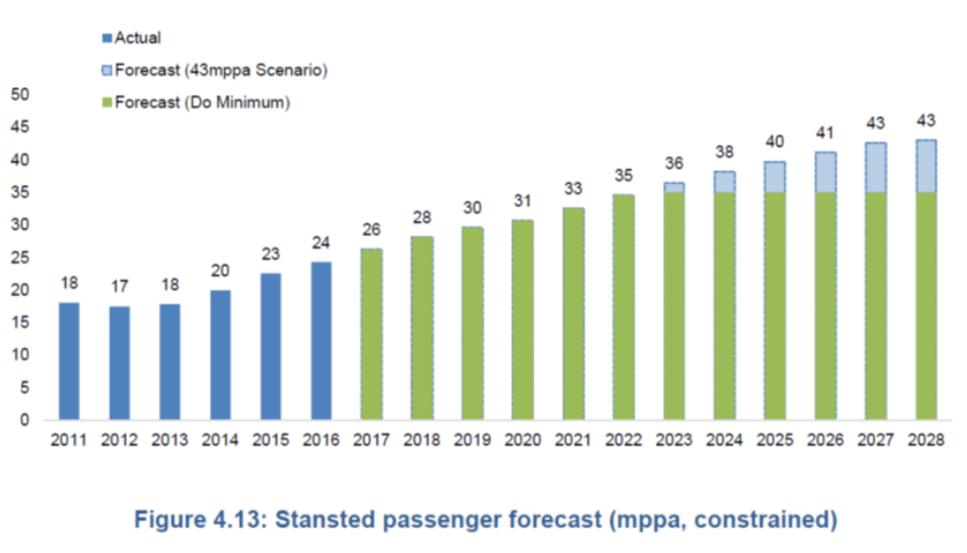


Figure 4.13: Stansted passenger forecast (mppa, constrained)

(Reproduced from page 4-14 of Environmental Statement Volume 1)

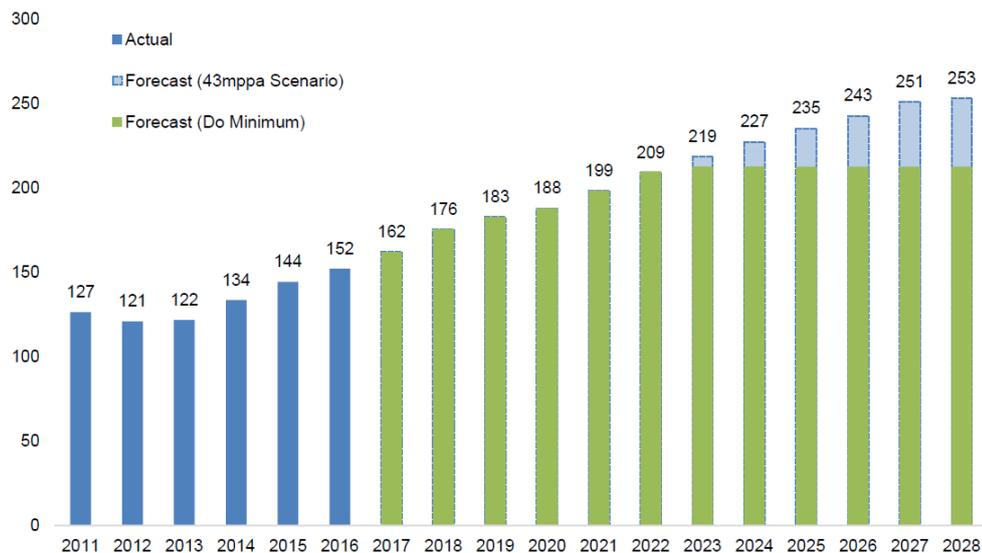


Figure 4.14: Stansted PATMs forecast (000s, constrained)

(Reproduced from page 4-15 of Environmental Statement Volume 1)

- 9.48 Figures 4.13 and 4.14 differ between 2016 and 2028 from the forecast trajectory between 2016 and 2030 of the Department for Transport “UK Aviation Forecasts” (October 2017). The ES compares, at paragraphs 4.65-4.70 of Chapter 4, its forecast with those for the airport of the Department. The ES forecasting approach reflects paragraph 1.3 of the Department’s Forecasts which states that “at the airport level the department’s forecasts may also differ from local airport forecasts. The latter may be produced for different purposes and may be informed by specific commercial and local information – such information is particularly relevant in the short-term. For example, an airport might have reached an agreement with an airline to increase frequencies or routes”. As anticipated by the Department, the ES forecasts differ, as ES paragraph 4.69 explains, due to differences in forecasting methodologies including the absence of short-term adjustments from the Department forecasts referred to in ES paragraph 4.49, such as route development.
- 9.49 It is reasonable to consider that the ES and Figures above appropriately show the forecast growth of Stansted airport based on the local and commercial knowledge of the applicant.
- 9.50 The NPPF (2018), paragraph 8 sets out the three mutually dependant objectives of sustainable development: economic; social; and environmental. Paragraph 8(a) states that the economic objective includes identification and provision of infrastructure. Paragraph 80, requires that significant weight be placed on the need to support economic growth. BTH (June 2018), paragraph 1.29, requires that careful account be taken of all relevant considerations, particularly economic impacts.
- 9.51 In addition to the forecasts addressed in the ES, ANPS (July 2018), Section 2, paragraphs 2.1-2.9, set out the overall importance of aviation to the UK economy. ES, Chapter 11, Socio-Economic Impacts, addresses the economic benefits from the application. In particular, between paragraphs 11.44-11.171. Table 11.14 summarises the socio-economic impacts and includes:
- an increased range and frequency of flights; enabling an additional 1.2 million business passengers to travel through the airport and contribute to attractiveness of the area for inward investment;
 - enabling 2.2 million foreign leisure passengers to arrive through the airport and 4.6 million UK passengers to make leisure trips abroad. In-bound leisure passengers support about 13,00 jobs and would provide a GVA of about £336m in 2028; enabling 800 tonnes of cargo to be carried; employing 300 people to build the development (£23.4 GVA over 10 months) and generating an additional 5,400 (and GVA of £357.3m) over the Do Minimum scenario.
- 9.52 As set out in the BTH (June 2018) the making of best use of the existing runway capacity (here, of Stansted Airport) has to take account of relevant environmental considerations. This means that, within the NPPF (2018), the economic benefits of the proposals must be weighed against the environmental and social objectives. In order to assess the environmental objective, the environmental impacts arising from the application are assessed in the accompanying Environmental Statement covering the principal environmental issues in respect of the proposals. The remainder of this report will discuss each chapter of the ES.

Approach of the Environmental Statement

- 9.53 As set out above, Regulation 4(5) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires the local planning authority to ensure they have, or have access as necessary to, sufficient expertise to examine the environmental statement. The expertise provided has been sufficient or the local planning authority to examine the environmental statement.
- 9.54 The Environmental Statement (ES) assesses the environmental impacts of the proposals across a range of topics. The approach of the ES is to consider the baseline of existing environmental conditions. This is generally set at 2016 with slight variations depending on the availability of baseline data.
- 9.55 The ES considers how the baseline conditions may change over time before the proposed development is implemented. Therefore, where possible, the existing baseline data has been extrapolated and modelled to identify the likely 'projected baseline' conditions in 2021 (the commencement date for construction) and 2023 (the date at which 35mppa is projected to be reached).
- 9.56 The projected 35mppa baseline is referred to as the 'Do Minimum' scenario rather than 'Do Nothing' scenario. This is because certain planned changes to the airport will occur prior to the 35mppa cap being reached in 2023, with or without the operational development to the existing runway and lifting of the existing annual passenger cap. These planned developments will either be built out under the extant parts of the 2003 and 2008 planning permissions or implemented by the applicant in accordance with its permitted development rights under Class F of Part 8 of the Town and Country Planning (General Permitted Development) (England) Order 2015. These developments include:
- New Arrivals Terminal (permitted 2017) – works anticipated to commence in 2019 with completion in summer 2020
 - Echo apron and stands – granted under the 15mppa+ planning permission (reference UTT/1000/01/OP). This last element has commenced and anticipated to be completed by late 2018
 - Additional car parks – land for additional surface car parking exists on the south side of the airfield and there is future potential for multi-level parking on existing car parks. One such example is the multi-level car park currently under construction in the Green short stay car park.
- 9.57 All planned permitted developments are assumed to be in place and operational by 2020. Therefore, there will be no cumulative construction or other 'in combination' effects. The year 2023 is envisaged as being the transitional year, the point at which the existing 35mppa cap is envisaged to be reached and the environmental impacts would then differ between the Do Minimum (35mppa) and development case (43mppa) scenarios. Final assessment is made of impacts in 2028, the year it is envisaged 43mppa would be reached. The primary comparison to be made is between the 'Do Minimum' and the 'development case' in line with the assessment made by the Generation 1 planning inspector in his report of 14 January 2008. The local planning authority is considering the impacts of the proposals over and above the permitted development, ie the difference between Do Minimum and the 'development case'. This is because the Do Minimum scenario already has planning permission and is expected to go ahead irrespective of the decision in respect on this application, and in light of the ES forecasts, reasonably represents a fall-back position.

9.58 Table 2.3 (page 2-19) of the ES sets out the assumptions for existing baseline, construction baseline and the Do Minimum baseline.

	2016 (Existing baseline)	2021 (Construction baseline)	2023 (Do Minimum baseline)
Total passengers ('000s)	24,300	32,600	35,000
Passenger ATMs ('000s)	152	199	213
Cargo ATMs ('000s)	12	13	14
Other ('000s)	16	19	19
Total Movements ('000s)	181	231	247

9.59 Table 2.4 (page 2-20) sets out the summary key statistics between the Do Minimum and Development Case.

	2023 Transitional Year		2028 Principal Assessment Year	
	Do Minimum Scenario	Development Case	Do Minimum Scenario	Development Case
Total passengers ('000s)	35,000	36,400	35,000	43,000
Passenger ATMs ('000s)	213	219	212	253
Cargo ATMs ('000s)	14	14	17	16
Other ('000s)	19	20	20	5
Total Movements ('000s)	247	253	249	274

9.60 Table 2.5 (page 2-22) sets out the Impact Magnitude Matrix which sets out how impacts are assessed.

Sensitivity/value of receptor	Magnitude of effect or impact			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

9.61 Table 2.6 sets out the significance criteria which determine the level of magnitude of effect or impact.

Level of significance	Description
Major	<p>Very large or large change in environmental or socio-economic conditions, which is irreversible and pronounced. Effects, both adverse and beneficial, which are likely to be important considerations at a national, regional or district level because they contribute to achieving national, regional or local objectives, or could result in exceedance of statutory objectives and/or breaches of legislation.</p> <p>Major effects are deemed significant in the context of EIA.</p>
Moderate	<p>Intermediate change in environmental or socio-economic conditions leading to measurable effects, both adverse and beneficial, which are likely to be important considerations at a local or district level.</p> <p>Moderate effects are deemed significant in the context of EIA.</p>
Minor	<p>Small change in environmental or socio-economic conditions. These effects may be raised as local issues but are unlikely to be of importance in the decision making process.</p> <p>Minor effects are not normally deemed significant in the context of EIA.</p>
Negligible	<p>No discernible change in environmental or socio-economic conditions. An effect that is likely to have a negligible or neutral influence, irrespective of other effects.</p> <p>Negligible effects are not significant in the context of EIA.</p>

Development Programme and Construction Environmental Management

- 9.62 Physical infrastructure works are required as part of the proposals. These consist of the construction of a Rapid Access Taxiway (RAT) and Rapid Exit Taxiway (RET) and nine aircraft stands, six in the middle part of the airfield (known as the Yankee Remote Stands) and three to the north of the existing Echo Stands. The total area of land required for the development is around 7 hectares and this will be made impermeable by the development. The ES sets out the timetable for construction as being a 12 month period starting in 2021 and to be completed by mid-2022.
- 9.63 Physical infrastructure works result in short-term impacts which would include noise and disturbance in respect of vehicular movements and the construction works. Environmental impacts will arise as a result of noise, dust, vibration and waste materials. Due to the nature of the works these will need to be undertaken at night when sensitivities are higher. The environmental impacts will be considered in each of the topic chapters.

- 9.64 The issue of the additional infrastructure has been raised in many of the representations. These claim that the additional infrastructure works result in the proposals being contrary to the government's support for best use of existing runways as this infrastructure would increase airport capacity.
- 9.65 The 2008 Planning Permission for 35mppa (UTT/0717/06/FUL) included a RAT and RET for 25mppa and an additional RAT and RET being required for runway operations at 35mppa. Whilst the 25mppa infrastructure has been constructed, the RAT and RET proposed for 35mppa, located at the northern end of the runway, have not been carried out. Therefore, the current application proposals do not increase the area of infrastructure required for optimised use of the runway, rather they propose to relocate the RAT and RET to enable more efficient operations better suited to the way the airport operates today.

B Surface Access and Transport

- 9.66 Chapter 6 of the ES assesses the environmental impacts of surface access. This chapter needs to be read in conjunction with the accompanying Transport Assessment (Volume 3 of the ES) and the updates and additional information contained in the Consultation Response and Clarifications document produced in July 2018.
- 9.67 Adopted Uttlesford Local Plan Policy GEN1 sets out the requirements for development in terms of access. Essentially, these are the requirement for the main road network to be able to accommodate the traffic flows safely, design mustn't impact on other road users, and the proposals encourage movement by means other than the private car. The policy is generally consistent with the NPPF, although there is more emphasis in the NPPF to sustainable transport modes whilst acknowledging that there will be differences in opportunities between rural and urban areas. The NPPF is more positively worded in seeking to minimise the need to travel and maximise cyclist and pedestrian and public transport opportunities. This policy should therefore be given moderate weight.
- 9.68 Policy GEN6 requires development proposals to make appropriate provision for supporting infrastructure, including transport provision. This policy is generally consistent with the NPPF, but the latter recognises the need for viability of development to be considered. In addition, there is a requirement to take into account the Community Infrastructure Regulations. The policy should be given moderate weight.
- 9.69 The provisions for infrastructure can be made by the applicant or, where cumulative impacts result in mitigation being required, by financial contribution. All provisions (including financial contributions) are required to meet all the tests as set out in the CIL Regulations and paragraph 56 of the NPPF (2018). These tests are:
- a) Necessary to make the development acceptable in planning terms;
 - b) Directly related to the development; and
 - c) Fairly and reasonably related in scale and kind to the development.
- 9.70 The NPPF (2018) has an overall presumption in favour of sustainable development. Paragraph 8 sets out the parameters for assessing if development is sustainable. Section 9 promotes sustainable transport. Paragraph 103 requires that the planning system actively manage patterns of growth in support

of the objectives identified in paragraph 102 (a)-(e). Measures include opportunities to promote first walking, cycling and then facilitating access to public transport, and to ensure the environmental impacts of traffic and transport infrastructure are identified, assessed and taken into account, including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains (see paragraphs 108 and 110). In addition to economic impacts, BTH (June 2018), paragraph 1.29, requires that careful account is taken of all relevant considerations, particularly environmental impacts and proposed mitigations.

- 9.71 Section 5 of the ANPS (July 2018) sets out the assessment of impacts in relation to the Northwest Runway at Heathrow. The assessments will not be the same for development proposals at Stansted Airport, but the principles in relation to the assessments will be similar and therefore it is appropriate to consider the approach set out in that document.
- 9.72 Paragraph 5.5 of the ANPS states:
- “The Government’s objective for surface access is to ensure that access to the airport by road, rail and public transport is high quality, efficient and reliable for passengers, freight operators and airport workers who use transport on a daily basis. The Government also wishes to see the number of journeys made to airports by sustainable modes of transport maximised as much as possible. This should be delivered in a way that minimises congestion and environmental impacts, for example on air quality.”*
- 9.73 Alternative means of transport to the private car and minimising environmental impacts are fundamental principles of sustainable development. As set out in the Transport Assessment (Volume 3 of the ES), in 2017 around 51.2% of air passengers used public transport, and around 27% of staff (paragraph 2.66). Table 4.2 (as amended in the Addendum) shows that the public transport mode share for air passengers has been consistently around the 49-51% mark since 2010. This has been roughly evenly split between rail and coach services with fluctuations and variations depending on marketing strategies by the operators. Since 2000, the most significant changes have been the reduction in the private car/hire car/taxi mode share for air passengers from about 66% to 49% (2017) and an increase in the bus/coach mode share from 7% to 21% (also 2017).
- 9.74 The Surface Access Chapter of the ES assesses the potential impacts of operational and construction traffic and access to the airport by road, including public transport, and rail. The baseline is 2016 with survey data setting out the current position. Three scenarios are then considered:
- 2021/22 – 12 month construction period
 - 2028 Do Minimum (35mppa) scenario; and
 - 2028 Development Case (43mppa)
- 9.75 Assessments include trip generation, impacts on highways including impacts on pedestrians due to severance, delay, amenity, fear and intimidation and accidents and safety. Impacts on public safety and walking and cycling are also undertaken.
- 9.76 Assumptions have been made as set out on page 6-19 of the ES. These include public transport mode share remaining constant for air passengers, a 10% modal

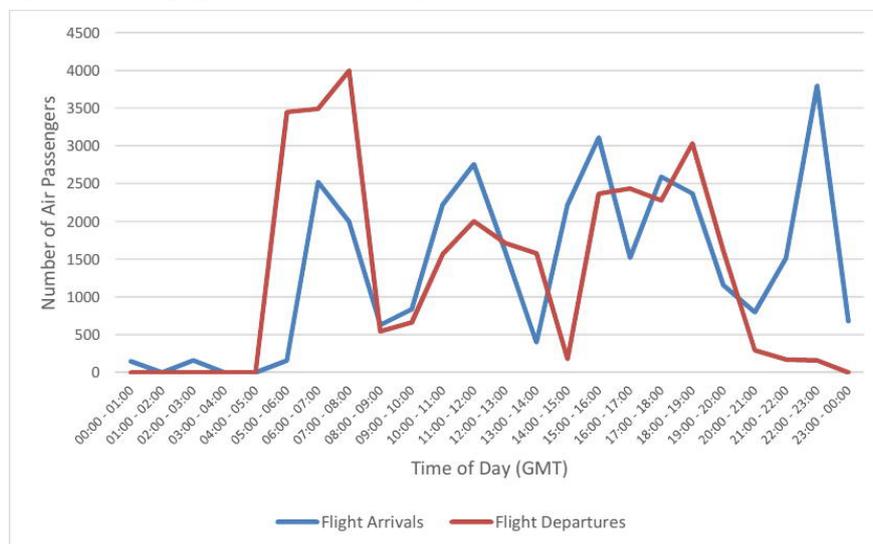
shift to public transport by employees and retention of existing passenger and employee origins for future years to take account of modelling uncertainty.

- 9.77 Assessments have been made in respect of the strategic highway network (M11 and A120), airport roads, and local roads. As agreed in principle with ECC, highway peaks of 07:00 – 08:00 and 17:00 – 18:00 and an airport peak of 16:00 – 17:00 have been assessed. The AM peak arrival period for passengers is 05:00 – 06:00. In addition, assessments have been undertaken in respect of the rail network. The peak hours on the rail network are 07:00 – 10:00 and 16:00 – 19:00, and an assessment daily from 00:00 to 23:59.

Surface Access Assumptions and Scene Setting

- 9.78 Operational phase surface access impacts are assessed in two scenarios – the Do Minimum whereby passenger numbers are expected to reach 35mppa in 2023 (already granted consent) and then remain constant. The Development Case scenario sees passenger numbers continuing to increase from 2023 to 43mppa in 2028.
- 9.79 The Transport Assessment which informs Chapter 6 of the ES is based on summer operations (March to October), which is normal modelling for airport assessments.
- 9.80 Current runway operations at the airport have a peak of departures in the 06:00 – 09:00 time slot. There is a smaller peak between 10:00 – 14:00 and then again between 16:00 – 20:00. Arrivals have peaks and troughs throughout the day centred around 07:00, 11:00, 15:00; 17:00 – 18:00 and 22:00. Figure 4.3 in the Transport Assessment shows the 2016 Daily Flight Profiles.

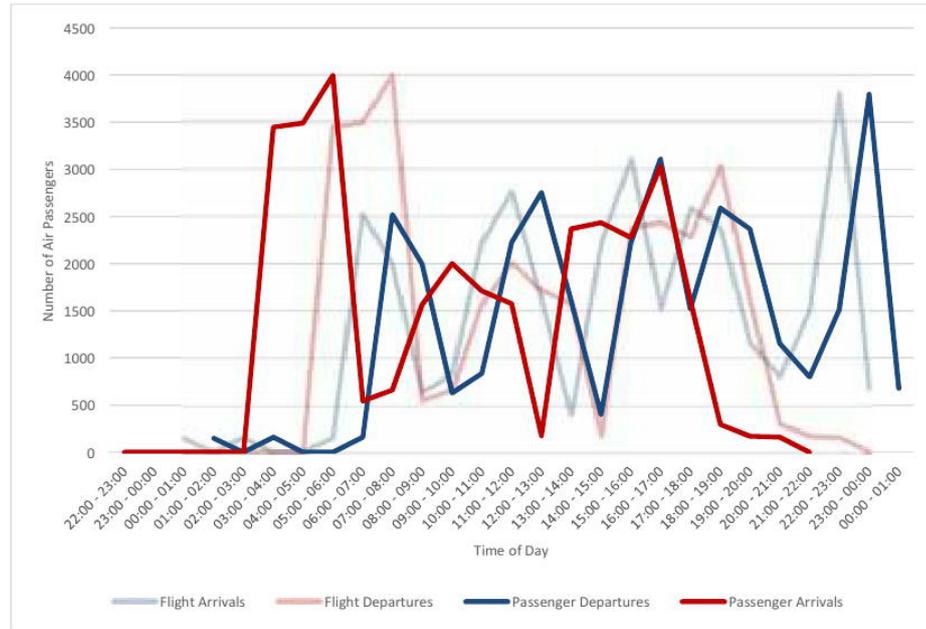
Figure 4.3: 2016 Daily Flight Profiles – Arrivals and Departures



(Reproduced from Environmental Statement Volume 3, page 29)

- 9.81 Figure 4.4 shows the same data with the passenger arrival and departures superimposed. NB, in Figure 4.4 the information shown in Figure 4.3 is the lighter colour red and blue. Figure 4.4 shows the 2-hour “lead in” time needed for departing passengers and the 1-hour “lag” time for arriving passengers.

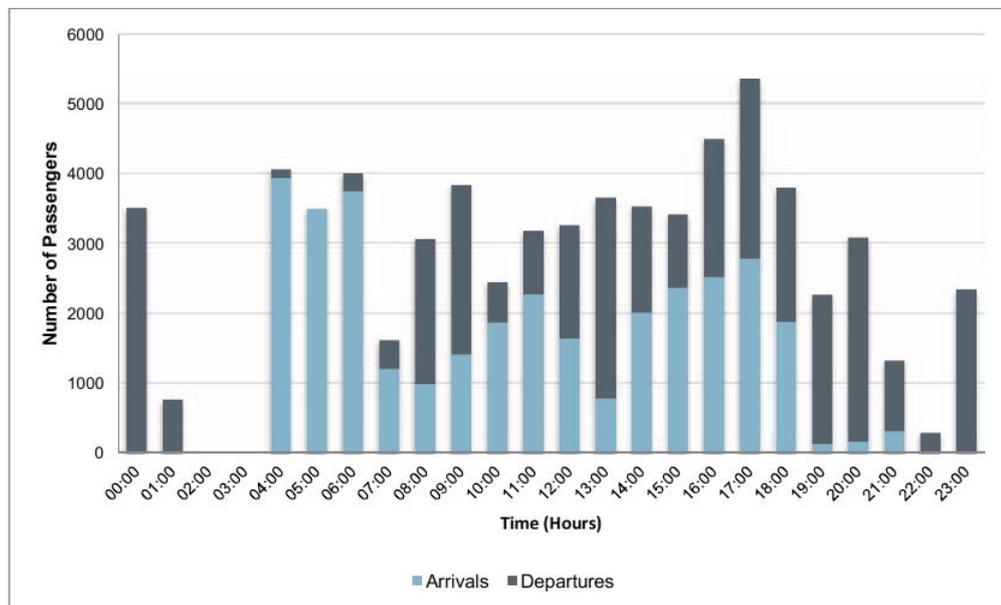
Figure 4.4: 2016 Surface and Flight Arrivals and Departure Profiles



(Reproduced from Environmental Statement Volume 3, page 30)

9.82 Table 4.5 shows the average daily profile for surface airport arrivals and departures in 2016.

Figure 4.5: Average Daily Profile for Surface Airport Arrivals and Departures (2016)



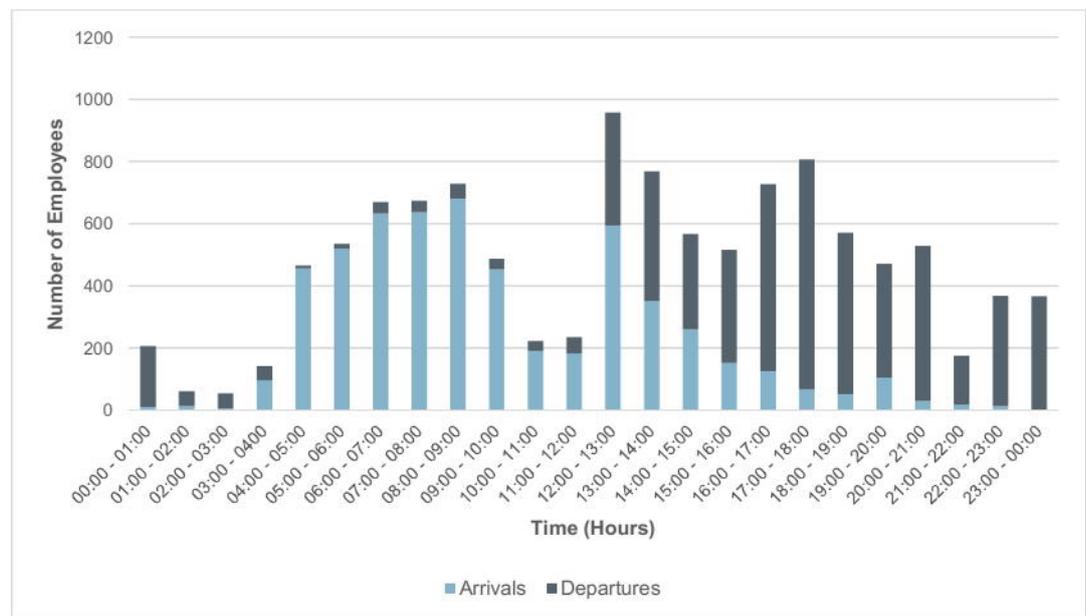
(Reproduced from Environmental Statement Volume 3, page 31)

9.83 Table 4.7, page 32, sets out the average typical daily passenger surface arrival and departure profile on an hourly basis. The assumption, based on typical average, is that the number of arrivals and departures are the same. An average day will see 66,684 passengers passing through the airport. Of these, 33,342 arriving/departing by car, including taxi, 18,004 by train and 15,338 by coach.

Taking into account “lead” and “lag” times, peak arrivals are 04:00 – 06:00 and peak departures are after midnight.

- 9.84 In terms of employees, baseline data was established via staff travel survey data. This established there were 10,963 employees in 2015. Transport modes were 64.9% by private car, 5.7% car passenger, 26.9% public transport and 2.5% were classified as other. A small number of staff do cycle to work.
- 9.85 Historical data shows that car use has fallen from 87.6% in 2002/3 with a steady decline to the present rate of 64.9%. Car passengers have fluctuated between a low of 4.1% in 2002/3 to a high of 7.1% in 2011. Public transport use has increased from 7% in 2002/3 to its current level.
- 9.86 Employees predominantly come from Essex, Hertfordshire and Greater London. Around 24.5% live in East Hertfordshire, 18.3% in Uttlesford, 15% in Braintree District, and 7.4% in Harlow.
- 9.87 Working patterns indicate that around 66% of employees work 5 days a week and 25.2% work 3-4 days a week. Figure 4.6 shows the average day surface arrivals and departure profile for employees. The data from the 2015 survey were applied to the employee population data to derive a consistent 2016 baseline.

Figure 4.6: Employee Average Day – Surface Arrivals and Departures Profile (2016)



(Reproduced from Environmental Statement Volume 3, page 36)

- 9.88 This demonstrates that the peak employee arrivals at the airport is 08:00 – 09:00, peak departures is 17:00 – 18:00, and the peak combined is 12:00 – 13:00 reflecting shift change over times.
- 9.89 Miscellaneous activities within the airport boundary have also been included within the transport data. These include, but are not limited to,
- External visitors, eg Enterprise House
 - Visitors to Aerozone

- Non-airport related users of hotel facilities, eg conferences, use of bars/restaurants/leisure facilities
- Stansted Express season ticket holders who park in the Green short stay car park and commute by rail
- Minibus services from off-airport car park operators
- Service and delivery trips
- Cargo

Highways

- 9.90 Impacts on highways have been considered in the ES and the accompanying Transport Assessment and Transport Assessment Addendum. These consider the impacts of the proposals on the strategic and local road network, including J8 of the M11.
- 9.91 The baseline assessment year is 2016 and conditions have been established by means of desktop research, site visits and a range of traffic surveys and publicly available data. Traffic counts are a mix of commissioned Automated Traffic Counts (ATCs) supplied from ECC and Manual Classified Counts (MCCs) conducted by Intelligent Data Collection in 2015, HE TRIS data traffic counts (2016) Annual Average Daily Traffic Flow (AADT); and ATC and MCC conducted by Nation Wide Data Collection (2017) on behalf of the applicant.
- 9.92 TEMPro (v7.2) has been used to estimate growth rates from the 2016 baseline. In addition, 2016 passenger and employee information for Stansted Airport was added to account for the growth of airport traffic, not captured using TEMPro v7.2. Cumulative schemes also include the development of Northside which has not yet had a planning application submitted.
- 9.93 Assessments have been made of AADT flows for an extensive external road network, including M11 J8. In addition, peak hour analysis has been undertaken with a four hour AM peak of 06:00-10:00 and a PM peak of 15:00-19:00.
- 9.94 Average car occupancy rates of 1.6 passengers per vehicle have been used. The ES Addendum notes that the average rates were based on a misinterpretation of survey data and the actual average loading should be 1.8. The revised figure has not been used to adjust the figures as it is considered that the lower figure of 1.6 gives a more robust worst case scenario.
- 9.95 Flows on the local and strategic road networks have been assessed for the 07:00-08:00 AM peak hour and the 17:00-18:00 PM peak hour. This data is set out in Tables 7.9 and 7.10 respectively in the Transport Assessment (pages 91-92). It will be noted that the % increase between 2016 to 2028mppa is significantly larger than the % in the final column. This is because the tables assess the impacts from baseline to the consented 35mppa. The final column assesses the difference between the consented 35mppa and the proposed development of 43mppa.

Table 7.9: Traffic Impact – AM Network Peak (07:00-08:00)

Link	2016 Existing Baseline	2028 (35mppa)	% increase (2016 to 2028 35mppa)	2028 (43mppa)	% increase (2028 35mppa to 2028 43mppa)
Parsonage Road	233	281	20.6%	282	0.3%
Stansted services	458	600	31.0%	624	0.4%
Bamber's Green	47	55	17.0%	55	0.0%
Thremhall Avenue	1273	1749	37.4%	1954	11.7%
Molehill Green Road	139	163	17.3%	163	0.0%
Church Road (B)	332	361	8.7%	368	1.9%
Round Coppice Road	533	1050	97.0%	1069	1.8%
Hall Road	202	238	17.8%	238	0.0%
A120 (east of Stansted Airport)	2916	3610	23.8%	3669	1.6%
A120 (east of M11 J8)	4171	5228	25.3%	5433	3.9%

Table 7.10: Traffic Impact – PM Network Peak (17:00-18:00)

Link	2016 Existing Baseline	2028 (35mppa)	% increase (2016 to 2028 35mppa)	2028 (43mppa)	% increase (2028 35mppa to 2028 43mppa)
Parsonage Road	368	432	17.4%	435	0.7%
Stansted services	604	623	3.1%	687	10.3%
Bamber's Green	79	93	17.7%	93	0.0%
Thremhall Avenue	1786	2509	40.5%	2958	17.9%
Molehill Green Road	180	212	17.8%	212	0.0%
Church Road (B)	479	637	33.0%	647	1.6%
Round Coppice Road	686	1172	70.8%	1227	4.7%
Hall Road	291	355	22.0%	355	0.0%
A120 (east of Stansted Airport)	3725	4379	17.6%	4497	2.7%
A120 (east of M11 J8)	5329	5818	9.2%	6266	7.7%

9.96 In terms of the strategic highway network, flows to and from the airport have been analysed and the percentage increase in traffic flows for the AM and PM peak are shown in Tables 7.11 and 7.13 respectively (pages 93-94).

Table 7.11: Percentage Increase in Junction Link Traffic Flows (07:00-08:00)

Road Link	% Increase	
	2016 baseline to 2028 35mppa	2028 35mppa to 2028 43mppa
M11 Junction 8 Motorway Services	20%	3%
A120 West (Bishop's Stortford Bypass)	24%	1%
M11 North of J8	18%	1%
A120 East of J8	23%	3%
B1256 Dunmow Road	18%	0%
M11 South of J8	25%	2%
Priory Wood West	51%	3%
Priory Wood East	17%	0%
Round Coppice Road South	50%	2%
Long Border Road	18%	0%
Round Coppice Road North	35%	2%

Table 7.13 Percentage Increase in Junction Link Traffic Flows (17:00-18:00)

Road Link	% Increase	
	2016 baseline to 2028 35mppa	2028 35mppa to 2028 43mppa
M11 Junction 8 Motorway Services	12%	9%
A120 West (Bishop's Stortford Bypass)	20%	2%
M11 North of J8	15%	4%
A120 East of J8	15%	12%
B1256 Dunmow Road	18%	0%
M11 South of J8	11%	11%
Priory Wood West	17%	12%
Priory Wood East	18%	1%
Round Coppice Road South	37%	6%
Long Border Road	18%	0%
Round Coppice Road North	23%	6%

- 9.97 Employee growth is projected to grow from a 2016 baseline of 11,600 to 13,200 in 2028 in a Do Minimum scenario (35mppa) and 16,200 in 2028 in the Development Case scenario (43mppa).
- 9.98 The forecast increase in passenger numbers would have impacts on both the strategic and local road network. The responsibility for these falls to Highways England and Essex County Council respectively. There are also potential impacts on the local road network in Hertfordshire for which Hertfordshire County Council is responsible.
- 9.99 Sensitivity testing has been carried out in respect of the strategic road network, in particular the M11 junction 8 (J8). This was required to better understand the impact of airport growth from 35mppa to 43mppa and whether the proposed mitigation was appropriate against a background of proposed growth in the Uttlesford Local Plan.
- 9.100 The testing indicated that performance at the junction is due to deteriorate with or without the airport expansion to 43mppa. The applicant's proposed J8 mitigation measures (for the Interim+ scenario) would improve network performance at

43mppa compared to the 2033 'do minimum' scenario with 35mppa and with ECC's Interim J8 scheme in place. However, the modelling confirms that the network is currently close to capacity, and will be over capacity in 2033. The sensitivity testing also indicates that minor adjustments to the modelled assumptions have significant impacts, particularly to the west of J8 and to the B1256. There is, therefore, a need for the mitigation measures.

- 9.101 The key locations on the Strategic Road Network (SRN) most likely to experience severe adverse impacts as a result of the airport's proposed expansion are M11 junction 8 interchange and the A120 Priory Wood roundabout which is the next junction a short distance east of the M11. The A120 to the west of the M11 is a local highway managed by Essex County Council (ECC), and forms a bypass of Bishop's Stortford. Birchanger Motorway Service Area is served directly off the M11 J8 gyratory.
- 9.102 ECC are currently preparing to implement a major improvement to a short section of the A120 west of M11 J8 to support economic growth. These improvements are likely to be able to accommodate some of the traffic growth arising from the airport expansion beyond the current 35mppa limit. However, they are not sufficient to cater for 43mppa. Further improvements are therefore necessary to address the potentially severe impacts on the SRN at M11 J8 and at the A120 Priory Wood roundabout. A mitigation scheme was therefore submitted by the applicant which, in terms of capacity and safety should be adequate to address these impacts.
- 9.103 The mitigation works relate to additional carriageway widening on key approach/exit arms to/from the M11 J8 signalised roundabout and a series of amendments to lane allocations and limited physical adjustment designed to enhance the capacity of the junction, along with the separate signalisation of the westbound entry of Priory Wood Roundabout. HE has concluded that the additional capacity achieved through these amendments provide mitigation that more than compensates for the additional traffic anticipated to arise from the proposed increase in operations of the airport.
- 9.104 In parallel with the ECC scheme and the airport's additional improvements, calls have been made for more extensive improvements to the M11 to be included in a future Roads Investment Strategy (RIS). The next RIS covering the period 2020 to 2025 is currently being prepared on behalf of the Department for Transport (DfT). Study work is still progressing to support the development of the next RIS, which is not due to be published by DfT until the latter part of 2019, so it is not yet known whether a scheme to upgrade the M11 or its junctions could be included. However, the possibility of such a scheme being included has had to be acknowledged in the context of this application.
- 9.105 In light of the above, HE are minded therefore to recommend conditions to be attached to any planning permission. These relate to delivery of the specific set of mitigation improvements to the SRN as proposed by the applicants. In proposing these conditions, HE are, however, mindful of the need to adopt a flexible approach that will enable the sensible coordination or adaptation of works for the benefit both of users of the road network and the airport, and to respond to factors that are currently unknown.
- 9.106 Such an approach is especially relevant to future RIS programmes and timetables. As such, while the recommended conditions relate to specific improvement plans HE's aim is principally to achieve the required outcomes

within an appropriate timetable but to allow either: (i) for the proposals to be reviewed and, if appropriate, revised to better achieve the outcomes in the light of emerging conditions; or (ii) for the possibility of the proposals to be superseded by another more extensive scheme or schemes that would achieve the same outcomes. In the event of the latter HE believe a financial contribution by the applicant equivalent to the cost of the proposed mitigation scheme would therefore be appropriate

- 9.107 The majority of the impact would be on the strategic road network, the M11 and A120. However, employees are likely to increase impacts on local roads and those roads closest to the airport would experience the greatest of those impacts.
- 9.108 ECC carried out sensitivity testing on local roads, focussing on Takeley because it has the highest concentration of employees close to the airport. The sensitivity testing resulted in higher figures attributed to the growth from 35mppa to 43mppa. However, this resulted in an estimated impact of 1.7%, which ECC consider is acceptable.
- 9.109 In addition to the J8 measures as summarised above, mitigation measures would be required for the local roads to resolve issues at potential hot spots. ECC recommends a local road fund of £800,000 be set up, which could be secured by way of s106 Legal Obligation. The mechanism for allocating the funding would be the Stansted Airport Transport Forum. The Highways Working Group of the SATF takes an overview of network safety and access by road, bicycle and on foot, and is chaired by Essex County Council.
- 9.110 Alongside this, monitoring of the airport road network is recommended to ensure that early action is taken if congestion on the airport network itself occurs, as this could impact harmfully on the strategic or local road network. Such monitoring already takes place by the applicant because they are responsible for this element of the highway network.
- 9.111 In terms of the Hertfordshire local road network, HCC is satisfied that the technical work demonstrates that the proposal should not have a significant impact upon the wider Hertfordshire highway network. However, there are concerns about uncertainties given the significant time frame for growth and the fact that unforeseen impacts could arise.
- 9.112 The Local Roads Fund currently has a radius of 5 miles, which includes local roads in the Hertfordshire area, and therefore, the mitigation proposed above is considered to be appropriate to cover the concerns of HCC.

Bus/Coach Services

- 9.113 In terms of coach and bus services, these are operated by private companies. At present there are 6 routes operated under franchise arrangements by National Express and Airport Bus Express to and from various destinations in London. In addition, there are 6 other routes operated under a regional franchise by National Express to Cambridge/Thetford/Norwich, Heathrow/Gatwick/Brighton, Luton/Oxford, Ipswich/Colchester/Heathrow, Luton/Coventry/Birmingham, and Cambridge/Nottingham/Liverpool. There is a night shuttle bus serving Golders Green, Tottenham Hale, Edmonton Green and Enfield which provides Airport Travel Card holders with a free service that arrives at the airport at 03:40 in readiness for a 04:00 start.

- 9.114 Coach demand in respect of arrivals has been between 150,000 and 200,000 passengers per month and a similar demand for departures.
- 9.115 There are 12 local bus services operating via the Airport. These are to Basildon, Southend, Chelmsford, Bishop's Stortford, Saffron Walden, Colchester and Harlow Town. These provide a total of 204 bus services per week day, 199 on Saturday and 118 on Sunday.
- 9.116 During the construction period it is envisaged that there may be a small increase in the number of workers in the local area using public transport. However, this is assessed as having a negligible impact on the bus and rail network.
- 9.117 In terms of the operational phase, the predicted growth in bus and coach travel demand is set out in Table 6.26 in the ES (page 6-47).

	07:00-08:00		17:00-18:00		05:00-06:00		16:00-17:00	
	Inbound (air depart)	Outbound (air arrival)						
2028 35mppa	509	285	632	627	1250	32	729	862
2028 43mppa	749	208	823	811	1446	31	897	1078
Change	240	-77	191	184	198	-1	168	219
% change	47.2%	-27.0%	30.2%	29.3%	15.8%	-3.1%	23.0%	25.4%

- 9.118 Bus and coach patronage/loading data is not readily available and as such an assessment of capacity has not been undertaken. However, increases in demand are unlikely to adversely affect bus and coach services. Indeed, it is likely to act as a catalyst for improving services with operators increasing services to meet demand. On a quarterly basis, bus and coach operators attend commercially confidential meetings with local authority and airport staff as part of the work of the Transport Forum's Bus and Coach Working Group. At these meetings, existing services and potential improvements and enhancements are discussed and evaluated. These can include rebranding, fresh marketing, new buses or coaches, timetable enhancements, route extensions and new routes. Subject to a proven business case, funding may be available from the £2m pot committed by the airport operator under the Generation 1 unilateral undertaking signed in 2008, or from the car park levy.
- 9.119 Increases in demand for services may require improvements to be carried out to the bus/coach station at the Airport. These improvements are likely to include extra bays, revised bay allocation management (in terms of managing queue interactions) and weatherproofing for passengers. These can be delivered as part of the mitigation measures secured by way of s106 Legal Obligation, and overseen by the Bus and Coach Working Group.
- 9.120 ECC has suggested new or additional routes to specific locations, and whilst these aspirations are welcomed, it will be necessary for there to be a viable business case for bus/coach operators to deliver the services. These can be explored further through the SATF's Bus and Coach Working Group, which ECC chairs. The Working Group is also attended by officers from UDC and Herts CC.
- 9.121 HCC and EHDC have also identified key routes that they would wish to see delivered, in particular a new east-west express coach service linking St Albans,

Hatfield, Stevenage, Welwyn Garden City, Hertford, Ware and Stansted Airport. Again, the aspiration is welcomed. However, employment data clearly identifies that there is no significant demand for bus routes from these locations with very low numbers of employees coming from the Hertfordshire area outside of Bishop's Stortford, which is well served by public transport links to the airport. This proposal could be explored further through the Bus and Coach Working Group.

- 9.122 A key funding mechanism for SATF is the Transport Levy which is raised from car parking transactions at the airport (currently 25p per passenger parking transaction and £10 per annum for staff parking).
- 9.123 It is proposed to extend the Transport Levy to the Kiss and Fly transactions at 10p per transaction. The combined income from the levy is predicted to be around £12m of funding to 2028, increasing to £20m in 2033 (assuming operations remain at 43mppa). This is in addition to the Bus Fund, a ring fenced sum of money. This was originally £2m as part of the 2008 Unilateral Undertaking.
- 9.124 A third source of funding for the bus network comes from the sale of airport travel cards to staff. This is predicted to increase to £1.4m per year at peak employment. This is a minimum increase assuming the same levels of staff public transport use and no future improvements. This would generate in at least £15.5m worth of revenue generated for bus operators from airport staff alone.
- 9.125 The Bus and Coach Working Group is proposed to be refreshed and the terms of reference updated. This would enable flexibility in the delivery of sustainable transport options given the changes in technology and approaches to delivery of services. Approximately £1m of the original Bus Fund has been spent in improving services associated with passenger growth from around 17mppa to 26mppa. The applicant is proposing to top up the ring fenced bus fund to £2m.
- 9.126 The principles of funding and the refresh of the Bus and Coach Working Group and terms of reference are accepted by the consultees. However, negotiations are still on-going regarding the appropriate level of funding to be secured by way of the s106 Legal Obligation.

Walking and Cycling

- 9.127 Given the rural location of the airport there are limited options for accessing the airport by walking and cycling, especially by passengers. In 2015 the percentage of employees walking to work was 0.6% and those cycling 0.4%.
- 9.128 STAL currently operates a Staff Travel Plan which forms part of the legal obligations in respect of the development of the Airport. This is proposed to continue and would form part of the obligations in a new s106 Legal Obligation if planning permission was to be granted.
- 9.129 STAL promotes the use of walking and cycling for employees, a source of funding for which is the car park levy. Stansted Airport's Cycling and Walking Strategy (2016) forms part of the overarching Sustainable Development Plan (SDP) for the airport. It includes the following measures:
- Improve cycle access from the west and north to Bishop's Stortford, Birchanger, Stansted Mountfitchet and Elsenham

- Cycle crossing facilities on J8 of M11 motorway
- Extend the Sawbridgeworth – Bishop’s Stortford link; and
- Storage, shower and secure parking at key locations on site, including Northside.

9.130 Given the relatively low walk and cycle mode share, only modest increases in these trips between the 2028 Do Minimum and Development Case scenarios are considered feasible and any improvements to infrastructure and quality of access will occur gradually over time through the implementation of the walking and cycling strategy measures. These measures will be promoted and overseen by the Highways Working Group.

9.131 ECC Highways acknowledges that cycling will contribute a small proportion of the modal share, but consider there is a potential to increase the number of employees accessing the airport by bike, particularly to the south, east and west of the airport. They consider that a Walking and Cycling Strategy should be produced as part of the Airport Surface Access Strategy. This should include improving the airport highway network for cyclists and provide funding to support the implementation of cycle routes to key villages where there is a concentration of employees, such as Takeley.

9.132 Similarly, HCC has identified routes from various locations in Bishop’s Stortford, and an ambitious project linking the airport to Bishop’s Stortford, Sawbridgeworth, Harlow, Gilston, Ware and Hoddesdon. These schemes have not been demonstrated by HCC as being required in direct connection with the airport expansion, particularly given the low percentages of staff cycling to work.

9.133 Mitigation measures are best delivered in line with the recommendations of ECC with a Walking and Cycling Strategy. The funding and delivery of such measures identified as being required would be via SATF, funded by the Transport Levy.

Rail

9.134 Baseline data provided by Abellio Greater Anglia (AGA) in respect of rail services indicate that an average daily loading of passengers from Stansted Airport towards London Liverpool Street was 10,011. From London Liverpool Street to Stansted Airport average daily loadings were 11,329 passengers per day. Assessments have been carried out over 24 hour periods, with emphasis on peak periods of 07:00 – 10:00 and 16:00 – 19:00.

9.135 Current rolling stock is in the form of two train types, Class 379 (2011) and 317/5. The latter is made up of 8 carriages (2 x 4-car units) whilst the former can consist of 4, 8 or 12 carriages. Class 317/5 has a total capacity of 964 passengers, made up of 584 seated and 380 standing. Class 379 (2011) have capacities of 345, 690 and 1035 respectively. Four carriage trains have a seating capacity of 209 and 136 standing.

9.136 Table 6.8 sets out the baseline train loadings for 2016 on the Stansted Express.

	Depart Liverpool Street – Stansted Airport			Depart Stansted Airport – Liverpool Street		
	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
Line loading (seating capacity only)	23%	94%	40%	75%	37%	39%
Line loading (total capacity incl. standing)	14%	57%	24%	45%	22%	23%

9.137 The assessment is carried out on the basis that there will be no physical infrastructure constructed during the assessment period, apart from completion of the third track between Tottenham Hale and Angel Road (Meridian Water). Works to lay the third track are currently underway. The Anglian Route Study (2016) produced by Network Rail indicated that based on current rolling stock there is expected to be a capacity gap of approximately 1000 passengers by 2023 and 2100 by 2043 in the peak hour on the Cambridge and Stansted services into Liverpool Street.

9.138 The study concluded that lengthening two of the Cambridge and Stansted services from eight carriages to 12 carriages between 08:00 and 08:59 would meet the capacity gap by the end of Control Period 6 (CP6: 2019 – 2024). This has resulted in the franchisee investing in a new fleet of Stansted Express trains from 2019 which will all be 12 carriages long.

9.139 In respect of CrossCountry services from Stansted Airport to Birmingham New Street, these services run at a frequency of 1 per hour. Loading data was supplied by DfT in the form of average loading on each service (not specifically in relation to Stansted Airport) and is set out in Table 6.9.

	Arrive at Cambridge from Stansted Airport			Depart from Cambridge to Stansted Airport		
	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
Line loading (seating capacity only)	39%	54%	29%	33%	77%	35%
Line loading (total capacity incl. standing)	32%	43%	23%	27%	62%	28%

9.140 AGA has also provided train loading data for the off-peak Stansted to Cambridge service which runs half-hourly to the Cross Country service. The data shows that these services operate with significant spare seating capacity during the day. Under the new franchise, this service will be extended to Norwich once the new “bi-mode” trains are delivered.

9.141 The ES set out a growth rate of 1.5% across the rail network, as agreed with Network Rail. An assumption of 26% rail mode share was made in the ES and Network Rail requested a stress test of 35% mode share. Tables 3.1 and 3.2 in Annex 6 – Transport Assessment Addendum set out the line loadings for the Stansted Airport – London Liverpool Street line using the stress test mode share.

Table 3.1 – Forecast Stansted Express Line Loadings (35% Rail Mode Share) – Seating Capacity

	Depart Liverpool Street – Stansted Airport			Depart Stansted Airport – Liverpool Street		
	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
2028 (35mppa)	16%	68%	29%	56%	26%	28%
2028 (43mppa)	23%	73%	34%	56%	32%	32%
2028 (43mppa) Sensitivity Test	29%	86%	41%	66%	43%	41%

Table 3.2 – Forecast Stansted Express Line Loadings (35% Rail Mode Share) – Total Capacity (incl. standing)

	Depart Liverpool Street – Stansted Airport			Depart Stansted Airport – Liverpool Street		
	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
2028 (35mppa)	11%	48%	20%	39%	18%	19%
2028 (43mppa)	16%	51%	24%	39%	23%	22%
2028 (43mppa) Sensitivity Test	20%	60%	29%	46%	30%	29%

- 9.142 Paragraph 3.20 of Annex 6 does point out that presenting the information in this format does dilute the impact of the airport's increased passenger throughput on train capacity, particularly on the busiest services. Hourly data presented to Network Rail (not included in the application due to sensitivity of the data) show that demand may exceed seating availability on four Stansted Express services heading northbound during the PM peak, should airport passenger rail mode share rise to 35% by 2028 with the growth of the airport to 43mppa. Whilst this would impact on seating availability, there would be sufficient standing capacity to accommodate the passenger numbers.
- 9.143 As an indicator of rail demand to/from the airport, ticket sales information, as set out in Table 3.3 in Annex 6, indicates that around 25% of rail journeys from London Liverpool Street are to Stansted Airport, and around 42% from Stansted Airport to London Liverpool Street. Around 9% of ticket sales in both directions relate to journeys from Tottenham Hale to or from Stansted Airport. In 2018 only 1% of journeys were from Stratford. Other train journeys from other stations accounted for 5-6% of ticket sales.
- 9.144 The increase in demand for Stansted Express services for the proposals when compared to the Do Minimum scenario is shown as being 8% in demand in both directions. This would be of minor negative significance. In terms of impacts on the Stansted to Cambridge route, the increase in demand is calculated to be an additional 177 inbound daily passengers and 177 outbound daily passengers in the Development Case scenario. This would have a negligible effect on services on this line.
- 9.145 Impacts on interchanging at Tottenham Hale Station have been considered, although no detail in respect of platform capacity has been supplied to the

applicant. An assessment of the daily demand via the interchange to and from the underground station and services to/from Stansted Airport has been made. The following table is a summary of Tables 3.5 – 3.7 of Annex 6, which assesses the 2016 baseline against the 2028 Do Minimum and Development Case sensitivity tests.

	AM Peak		PM Peak		Daily	
	To underground	From underground	To underground	From underground	To underground	From underground
2016 baseline	2%	8%	2%	6%	14%	24%
2028 Do Minimum	4%	10%	9%	8%	18%	30%
2028 Development Case	4%	16%	11%	9%	22%	37%

- 9.146 The difference between the 2028 Do Minimum and Development Case sensitivity test scenarios results in there being 5 less passengers going to the underground and 23 more passengers coming from the underground in the AM peak. In the PM peak the numbers are 11 extra to and 15 extra from the underground. The daily figures are 141 to and 204 from the underground. This is viewed as being a negligible impact on Tottenham Hale Station.
- 9.147 It is noted that representations have been received in respect of existing capacity issues at Tottenham Hale Station, including concerns raised by Network Rail. However, existing problems at the station are not a matter for this application to resolve. In respect of future growth, Network Rail confirms that the additional information in respect of this issue has been considered and they have no objections to the proposals.
- 9.148 Capacity at Stansted Airport rail station is deemed to be sufficient to meet future rail demand. Platform 1 can accommodate two trains simultaneously in formations of up to 12 carriages and platform 2 can accommodate four carriage trains, currently used by Cross Country services.
- 9.149 Network Rail has been consulted on the proposals and they have confirmed that they are satisfied with the findings in the ES and the additional information submitted. They accept the conclusions that higher capacity rolling stock on the London services can accommodate passenger growth from the airport in the timescale assessed. They do not object to the application, but do note that increased rail passengers resulting from increased air passengers would mean that longer term rail capacity schemes on the West Anglia Main Line are likely to be needed sooner. These are capacity schemes that would be required with or without the expansion of the airport.

Construction Impacts

- 9.150 Paragraph 6.142 of the ES sets out that approximately 27,700 construction vehicles (two-way) are estimated over the 12 month construction period. The average and peak daily construction traffic flows would be around 100 and 200 respectively. HGV movements are not expected to exceed a peak of around 20 two-way movements per hour at any point of the day.
- 9.151 Construction vehicles would enter and exit the airport via Long Border Road and Bassingbourn Roundabout directly from the A120. The proposed construction

pound would be located close to the CEMEX concrete plant off Long Border Road.

- 9.152 Construction work would be undertaken during the day and night with night activities being limited to Monday to Friday. The exception will be the works required for the RAT and RET which will require 96 six hour periods on 48 consecutive Saturday/Sunday nights during the construction period when the runway will need to be closed.
- 9.153 Construction vehicles are estimated to increase traffic flows by around 0.7% and this would be of negligible significance. As such, this is expected to have a negligible impact on pedestrian movement, capacity, severance, delay, fear and intimidation and amenity. The same negligible impacts are predicted for cyclists and public transport.
- 9.154 The impact of construction traffic has been assessed by ECC Highways who have raised no objections in respect of this issue.

C Air Noise

- 9.155 Chapter 7 of the ES assesses the impacts of air noise. This chapter needs to be read in conjunction with the accompanying noise assessment set out in Appendix 7 (Volume 2 of the ES) and the updates and additional information contained in Annex 3 of the Consultation Response and Clarifications document produced in July 2018.
- 9.156 Air noise is produced by aircraft on departure from the start of the departure roll along the runway and, on arrival, it ceases at the point of departure onto a taxiway. All taxiing is defined as ground noise, as is all noise generated by aircraft and servicing equipment on stands.
- 9.157 Adopted Uttlesford Local Plan Policy ENV11 states that noise generating development will not be permitted if it would be liable to affect adversely the reasonable occupation of existing or proposed noise sensitive development nearby, unless the need for the development outweighs the degree of noise generated. This policy is generally consistent with the NPPF but the NPPF is more specific with regard to existing businesses recognising the need to balance the needs of business and the protection of existing amenities. The policy therefore carries moderate weight.
- 9.158 Paragraph 170(e) of the NPPF (2018) states that development should contribute to and enhance the environment by preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of noise pollution. Paragraph 180(a) states that planning decisions should ensure that new development is appropriate for its location taking account of likely effects as well as the potential sensitivity of the site or wider area to impacts that could arise. In doing so, they should mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life.
- 9.159 In March 2010 DEFRA published the Noise Policy Statement for England (NPSE). This sets out the aims of the Noise Policy as:

“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- avoid significant adverse impacts on health and quality of life;*
- mitigate and minimise adverse impacts on health and quality of life; and*
- where possible, contribute to the improvement of health and quality of life.”*

- 9.160 It emphasises the need to balance the consideration of the economic and social benefit of the activity under examination with proper consideration of the adverse environmental effects, including the impact of noise on health and quality of life. This should avoid noise being treated in isolation in any particular situation, i.e. not focussing solely on the noise impact without taking into account other related factors.
- 9.161 Section 5 of the ANPS (July 2018) sets out the assessment of impacts in relation to the Northwest Runway at Heathrow. The assessments will not be the same for development proposals at Stansted Airport, but the principles in relation to the assessments will be similar and therefore it is appropriate to consider the approach set out in the document.
- 9.162 Paragraph 5.44 identifies that the impact of noise from airport expansion is a key concern for communities affected. High exposure to noise is an annoyance, can disturb sleep, and can also affect people’s health. Paragraph 5.45 notes that it is not just the number of aircraft overhead that results in aircraft noise but also engine technologies and airframe design, the paths the aircraft take when approaching and departing from the airport, and the way in which the aircraft are flown.
- 9.163 There is recognition that over recent decades there have been reductions in aviation noise (air and ground) due to technological and operational improvements and that this trend is expected to continue. It notes that new generation aircraft coming into service have a noise footprint typically 50% smaller on departure than the ones they are replacing, and at least 30% smaller on arrival.
- 9.164 The government recognises that evidence has shown that people’s sensitivity to noise has increased in recent years, and there has been growing evidence that exposure to high levels of aircraft noise can adversely affect people’s health.
- 9.165 Paragraph 5.47 states that the government wants to strike a fair balance between the negative impacts of noise and the positive impacts of flights, which reflects the aims of the NPSE.
- 9.166 There is no European or national legislation which sets legally binding limits on aviation noise emissions. Stansted Airport, as a noise-designated airport, is required to produce annual noise exposure maps. The International Civil Aviation Organisation introduced the concept of a ‘Balanced Approach’ to noise management (resolution A33/7). This is given legal effect in the UK through EU Regulation 598/2014 – the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Union airports within a Balanced Approach. This has four pillars:

- i) Reduction of noise at source
- ii) Land use planning and management
- iii) Operational procedures
- iv) Operational restrictions

- 9.167 The Balanced Approach operates by a preference for measures within Pillar i) before Pillar ii) and so on. Operational restrictions include the current night flight restrictions and are a last resort when measures within Pillars i) – iii) are deemed insufficient mitigation.
- 9.168 BTH (June 2018), paragraph 1.22 identifies that it is important that communities surrounding airports seeking to make best use of their existing runways share in the economic benefits of this, and that adverse impacts such as noise are mitigated where possible. Paragraph 1.29 states that careful account be taken of such relevant considerations.
- 9.169 Chapter 3 of the Aviation Policy Framework (2013) relates to noise and other local environmental impacts. Whilst this document predates the NPPF and the ANPS it is still the government's current policy and it also sets out, at paragraph 3.3, the aspiration to "strike a fair balance between the negative impacts of noise (on health, amenity (quality of life) and productivity) and the positive economic impacts of flights". It expects the benefits of aviation growth to be shared between the aviation industry and local communities. This means that the industry must continue to reduce and mitigate noise as airport capacity grows. As noise levels fall with technology improvements the aviation industry should be expected to share the benefits from these improvements.
- 9.170 Paragraph 3.12 sets out the policy of the APF to "limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise, as part of a policy of sharing benefits of noise reduction with industry." The government's recently revised objective for aviation noise as set out in its Air Navigation Guidance 2017 (to the CAA) is to "limit and where possible reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise". There is no more detailed definition of the terms used.
- 9.171 Paragraph 3.21 of the APF identifies that some people consider themselves annoyed by aircraft noise even though they live some distance from an airport in locations where aircraft are at relatively high altitudes, other people living closer to an airport seem to be tolerant of aircraft noise and may choose to live closer to the airport to be near to employment or to benefit from the travel opportunities.
- 9.172 It is clear from the representations received that people living some distance from the airport consider themselves to be adversely affected by noise from aircraft. This is despite them being a considerable distance outside of the 57dB 16hrLeq noise contour, or even the 51dB 16hrLeq. Annoyance at distance can be heightened by increased overflying against a relatively tranquil background.
- 9.173 Noise in respect of Stansted Airport is controlled and monitored under a variety of conditions and legislation, including legislation outside of the scope of the planning system. For example, the Aerodromes (Noise Restrictions) (Rules and Procedures) Regulations 2003 requires the airport operator to produce strategic noise maps and to adopt a Noise Action Plan (NAP) approved by Defra, to be updated every five years. In respect of night noise, this is controlled by the Night flight restrictions at Heathrow, Gatwick and Stansted. This sets a noise quota and flights quota and the current regulations were set in October 2017 and run to

October 2022. The operation of the night flight restrictions is separate to this planning application and is not affected by it. DfT consultation on new post-2022 restrictions is expected to start in the second half of 2019.

- 9.174 In terms of controlling day time noise levels, a condition on the 2008 Planning Permission sets a maximum area of 33.9km² for the daytime noise contour of 57dB Laeq,16h. This is monitored by the strategic noise maps mentioned in paragraph 9.173above. In addition, condition ATM1 limits the number of air transport movements (ATMs) to 264,000 per 12 calendar month period, of which no more than 243,500 shall be passenger ATMs (PATMs) and no more than 20,500 shall be Cargo ATMs (CATMs). There is a further limit of not more than 10,000 ATMs per 12 calendar month period for aircraft taking off or landing which are not carrying passengers or cargo, or non-scheduled air transport services where the passenger seating capacity does not exceed 10 (known as General Aviation (GA)).
- 9.175 For the purposes of the ES aircraft noise modelling has been produced by the CAA's Environmental Research and Consultancy Department (ERCD), using their Aircraft Noise Contour (ANCON) model (current version 2.3). The ERCD is a specialist body within the CAA with national and international expertise on the assessment of aircraft noise. They produce noise contours for the designated London airports, and they generated the noise contours used by the Airports Commission. Their work is robust, authoritative and also impartial.
- 9.176 Aircraft noise modelling in the UK commonly uses the aggregate daily 16-hour noise levels experienced over the busy 92-day summer period between 16 June and 15 September, when effects are likely to be the most acutely felt. However, it is increasingly accepted that noise is not experienced in an averaged manner and whilst the use of LAeq 16hr remains government policy (reinforced by SoNA 2014), other metrics such as those that measure actual numbers of overflights are being used as supplementary indicators.
- 9.177 Further comparative modelling has been undertaken for a typical busy summer day in recognition of non-uniform responses to aggregation. The baseline is modelled against the 2028 Do Minimum and Development Case scenarios. This modelling does not indicate any materially different effects over the aggregate modelling outcomes for either daytime or night-time movements.
- 9.178 All assessments of potential impacts are made on the basis of assumptions made on the likely fleet mix. These assumptions have been challenged by those making representations, including SSE. The Council's expert advisors (BAP) note that fleet sensitivity tests have been carried out and that changes to the rate of the uptake of new variant aircraft of up to 10% will be insignificant. They consider that there is no reason to distrust the tests and that the assumptions appear reasonable.
- 9.179 The NPSE sets out the principles for the effective management of noise. Using NPSE descriptions, Table 7.3 of the ES (page 7-13) sets out the Airborne aircraft noise effect levels.

Effect level *	Noise level (dB)		Typical Action
	Daytime	Night-time	
NOEL	LAeq, 16h ≤ 51	LAeq, 8h ≤ 45	None required
LOAEL	51 < LAeq, 16h ≤ 63	45 < LAeq, 8h ≤ 54	Identify, mitigate and reduce to a minimum
SOAEL	63 < LAeq, 16h ≤ 69	54 < LAeq, 8h ≤ 63	Avoid
UAEL	LAeq, 16h ≥ 63	LAeq, 8h ≥ 63	Prevent

* NOEL – No observed level of effect

* LOAEL – Lowest observed adverse effect level

* SOAEL – Significant observed adverse effect level

* UAEL – Unacceptable adverse effect level

- 9.180 For the purposes of this planning application, the air noise study area is approximately 25km x 30km which contains all dwellings and other noise sensitive properties forecast to experience noise at or above LOAEL.
- 9.181 In terms of perception, the Council's Environmental Health Manager (Protection) advises that it is widely accepted that a 1dB increase in sound pressure level would not be perceptible. A 3dB increase would be just perceptible as an apparent change in loudness. So although a 3dB increase is a doubling of sound pressure, this increase is only just perceptible to the human ear. It should be noted that a 5dB increase will be clearly noticeable and a 10dB increase is typically considered twice as loud, so 85dB will sound twice as loud as 75dB.
- 9.182 A range of assessments have been carried out to assess potential noise impacts. These include the traditional 57dB LAeq, 16hr noise contours, plus 54dB and 51dB contours to reflect increased intolerance at lower noise levels. In addition, new assessments of Nx values (number above) have been produced. These identify the number of incidents above a certain noise level, for example the N65 identifies the number of times 65dB L_{Amax} is exceeded. However, whilst it is known that noise levels will be at least 65dB L_{Amax} these assessments do not establish the maximum noise level. Therefore, those falling within these areas could be affected by noise levels of 65.1dB L_{Amax} or in excess of 85dB L_{Amax} for example.
- 9.183 Different sensitivity criteria have been used for different types of receptor and these are set out in Table 7.4, reproduced below.

Receptor	Significance Criteria	Value of Δ^* denoting significance			
		Negligible	Minor	Moderate	Major
Dwellings and other residential buildings	Day (07:00 – 23:00) Change in LAeq, 16h $\geq \Delta$ dB where outdoor LAeq, 16h >51dB	< 3dB	\geq 3dB	\geq 6dB	\geq 9dB
Healthcare facilities	Night (23:00 – 07:00) Change in LAeq, 8h $\geq \Delta$ dB where outdoor LAeq, 8h >45dB and SEL > 90dBA				
Education facilities	Day (07:00 – 23:00) Change in LAeq, 16h $\geq \Delta$ dB where outdoor LAeq, 16h >51dB or outdoor LAmax >75dB	< 3dB	\geq 3dB	\geq 6dB	\geq 9dB
Places of worship Community facilities	Day (07:00 – 23:00) Change in LAeq, 16h $\geq \Delta$ dB where outdoor LAeq, 16h >51dB	< 3dB	\geq 3dB	\geq 6dB	\geq 9dB

* Δ (delta) represents the change in noise level

- 9.184 Within the air noise study area 20 schools, 5 healthcare facilities, 8 places of worship and 4 community facilities have been identified (see Table 7.5 in Chapter 7 of the ES).
- 9.185 Baseline data for 2016 has been established by way of attended daytime and night time noise surveys and unattended noise surveys in various locations including towns and villages within the vicinity of the airport and further afield such as Thaxted, Great Easton and Stebbing.
- 9.186 Stansted Airport has one runway which is designated as either Runway 04 (for operations in a north easterly direction) or Runway 22 (for operations in a south westerly direction). Based on 20 year average operations the assessments are carried out on the basis of 73% of operations on Runway 22 and 27% on Runway 04.
- 9.187 Assessments are carried out in respect of 2016 (baseline), 2023 Do Minimum and Development Case (36.4mppa) scenarios, 2028 Do Minimum and Development Case scenarios, and an additional assessment at 2024 Development Case (38.1mppa) scenario as this is considered to be the peak noise year.
- 9.188 The 57dB LAeq, 16h noise contours for the scenarios are as follows:

Scenario	Size of 57dB LAeq, 16h contour *
2016 Baseline	24.3km ²
2023 Do Minimum	30.3km ²
2023 Development Case	31.2km ²
2024 Development Case	32.0km ²
2028 Do Minimum	25.5km ²
2028 Development Case	28.7km ²

* Permitted noise contour as per 2008 consent is 33.9km².

9.189 In terms of population affected by noise in accordance with the NPSE assessment criteria, Tables 7.14 and 7.15 give details of numbers of people affected by the proposals.

Table 7.14: Population within Daytime Observed Adverse Effect Level contours*

Year	dB LAeq, 16h		
	LOAEL: 51	SOAEL: 63	UAEL: 69
2016 Baseline	12,600	200	0
2023 Do Minimum	16,944	384	0
2023 Development Case	17,634	384	0
2028 Do Minimum	11,884	284	0
2028 Development Case	15,336	334	0
25+ Permission	15,480	484	0

* All changes in numbers of people within LOAEL and SOAEL categories to be viewed in the context of noise level changes between cases being **imperceptible**.

Table 7.15 Population within Night Time Observed Adverse Effect Level contours*

Year	dB LAeq, 8h		
	LOAEL: 45	SOAEL: 54	UAEL: 63
2016 Baseline	17,800	1050	0
2023 Do Minimum	24,830	2334	<50
2023 Development Case	25,430	2834	<50
2028 Do Minimum	22,630	2084	<50
2028 Development Case	21,980	2734	0
25+ Permission	15,980	1384	0

* All changes in numbers of people within LOAEL and SOAEL categories to be viewed in the context of noise level changes between cases being **imperceptible**.

(The increase in number in the 2028 Development Case for SOAEL: 54 shows the disproportionate geographical effect of an increased area of summer night contour over Thaxted and as shown in Figure 7.9 and paragraphs 7.234-5 of the ES)

9.190 These tables indicate that there will be an increase in population during the daytime above the LOAEL when compared to the Do Minimum Scenario, being 15,336 in the Development Case scenario compared to 11,884 in the Do Minimum. In terms of night time the figures are 22,630 in the DM scenario and 21,980 in the DC scenario, a reduction.

9.191 Whilst the LOAEL is considered to be the level above which adverse effects on health and quality of life can be detected, the ES argues that the noise level changes are not perceptible as they would be <1dB (between 0.5 and 0.6dB), and as such the increases would have a negligible effect.

- 9.192 In respect of night time impacts, the DC scenario is predicted to impact on a lower number of people (<3%) and this is argued to be a negligible impact in a positive sense. In terms of SOAEL, the noise level changes are also imperceptible and the change in population exposed to SOAEL is a minor effect. This is considered to be the case for both daytime and night time, despite the fact that the population affected by night time noise would increase by <33%.
- 9.193 Further analysis of the SOAEL night time contours indicate that the increase arises from the contour affecting a slightly larger area of Thaxted. The noise increases would result from an additional 3 flights between the DM and DC cases and noise levels would increase between 0.5 and 0.6dB, which is considered to be an imperceptible change.
- 9.194 It is acknowledged that noise from aircraft overflying isn't perceived as an average but rather a number of specific noisy events. In order to understand these impacts Nx (number above) contours have been produced. These indicate the number of events at which a certain noise level would be reached. As explained earlier, these only recognise the number of events above that noise level but do not identify the maximum noise level. Therefore, properties within these contours are likely to be experiencing different noise levels depending on their position in relation to the noise source.
- 9.195 The daytime Nx contour is N65, the number of overflights that exceed 65 dB(A). The night time Nx contour is N60, the number of overflights that exceed 60 dB(A). These are produced at values of 25, 50, 100 and 200 movements per day. These are equivalent to:
- 200: 13 overflights per hour, or one every 5 minutes;
 - 100: 6 overflights per hour, or one every 10 minutes;
 - 50: 3 overflights per hour, or one every 20 minutes; and
 - 25: 1.5 overflights per hour, or one every 40 minutes
- 9.196 In the DC scenario there would be 72 additional movements during the day (712 between 07:00 and 23:00) compared to the DM scenario (640 between 07:00 and 23:00). The 2016 Baseline gives rise to contour areas for N65 25 and 50 values which are larger than those for either of the 2028 DC or DM scenarios. It is only at N65 values of 100 and 200 that the 2028 contours extend to greater areas than those of the 2016 Baseline Year. This is because in 2028 the areas closest to the runway will be experiencing increased numbers of overflights at 65dB(A) or above.
- 9.197 The night time overflights analysis indicates that there would be little difference between the DM and DC scenarios. In 2016 there were 82 night time movements on a peak summer night. This is expected to increase to 104 and 107 in 2028 for the DM and DC scenarios. As previously discussed, night time flights are outside the scope of the planning system and are subject to government controls. However, the difference between the DM and DC scenarios is negligible. This is because in 2028 the full effect of the night flight restrictions are assumed to bite irrespective of whether planning permission is granted for the Development Case.
- 9.198 In terms of non-residential properties, the principal area of concern is educational facilities, an issue raised in the representations received. Analysis indicates that at the majority of schools the internal L_{max} is not expected to exceed 60 dB L_{max} with open windows (allowing for a 12 dB reduction from external free field

level through an open window), due to the noise benefits associated with new generation, quieter aircraft. Four schools would experience arrival and/or departure overflights at a level exceeding 72dB LAmax, namely:

- Howe Green School
- Spellbrook Primary School
- The Leventhorpe School
- Mandeville Primary School

- 9.199 In practice, the primary cause of noise exceedances above the recommended internal level of 60 dB LAmax is departures and arrivals by the B737-800. These occur currently and will do so in the future, irrespective of this application. The application however would permit some additional movements, over and above the DM case in 2028. For the B737-800 and similar aircraft types, the application would allow around one additional movement per hour, over and above what is forecast under the DM case in 2028, assuming a worst case 100% single mode runway operation. This is significantly less than forecast in the previous 25+ mppa application. The replacement of this type of aircraft over time by the B737Max should alleviate this effect. However, the B737Max on arrival is expected to produce maximum noise levels slightly higher than recommended at Spellbrook Primary School (73dB LAmax).
- 9.200 ECC has raised concerns about the potential for noise breaching the noise threshold level of 55dB LAeq30 on any school site. It hasn't been clarified as to whether this is an internal or external measurement, but the assumption has been taken that it is an internal one. Where this level is breached ECC would require a noise consultant to be employed to review the planning application against the DfE's "Building Bulletin 93: Acoustic Design of Schools – Performance Standards" to formulate mitigation measures that could be incorporated into s106 Legal Obligation. However, it should be noted that these standards are for new education facilities and not for retrofitting.
- 9.201 The findings of the ES are generally accepted by the Council's Environmental Health Manager and the consultants BAP. This has included consideration of the proposed mitigation scheme which would be a revised and updated version of the current Sound Insulation Grant Scheme (SIGS). It has been confirmed by the applicant that all of the potentially affected population within the 55dB Lnight contour for the 2028 DC operations would be included as per current World Health Organisation night noise guidelines.
- 9.202 Mitigation measures are already in place to minimise noise impacts and these would continue. These include:
- A daytime noise contour with a maximum area of 33.9km²
 - Conditions restricting the number of ATMS per annum, currently controlled by types of ATMS
 - Director's Notices relating to the use of Air Start units, Ground Power Units, air conditioning units and other ground servicing equipment
 - A Noise Action Plan
 - Sustainable Development Plan
 - Sound Insulation Grant Scheme
- 9.203 These mitigation measures are proposed to be retained and improved, particularly in respect of the SIGS as described in the previous section of this

report. The applicant also refers to the Night Noise Surcharges and Noise Penalty Limits as mitigation for ground noise.

9.204 The current SIGS is a mitigation measure contained in the current legal obligation. This offers assistance with the cost of moving for those households within the 69dB LAeq, 16h contour. It also offers to pay 50% of the total cost of acoustic insulation for dwellings exposed to noise levels in excess of:

- 63dB LAeq, 16h;
- 57dB LAeq, 8h (night time); and
- 90dB(A) SEL departure footprint for the noisiest aircraft (QC/2) operating at night (23:30 to 06:00)

9.205 The current scheme covers 1088 properties, of which 648 have taken up the option and benefitted from insulation. The revised and updated scheme, which can be secured by way of a s106 Legal Obligation, proposes to remove the requirement for the householder to contribute financially to the cost of insulation works; will be a three-tiered offer, to target greatest support to those who are most impacted with increased grant payments. The qualification criteria are set out in Table 7.24 (page 7-72).

Noise Impact	Noise Contour	Grant Maximum
Upper	69 and 66 dB LAeq, 16h	£10,000
Middle	63 and 60 dB LAeq, 16h	£8,000
Lower	57 dB LAeq, 16h/N65 200/ 90 dBA SEL * 600m distance/55 dB LAeq, 16h ground noise	£5,000

* 90 dB(A) SEL footprint for the noisiest aircraft operating at night (23:00 to 06:00)

9.206 This revised mitigation scheme would be available to 50 properties in the upper category, 400 in the medium and 1600 in the lower categories. In addition, 5 schools, 2 healthcare facilities, 8 places of worship (7 if Ebenezer Chapel is no longer to be used as a church) and 3 community facilities would be eligible, unlike under the current scheme.

9.207 There may be practical reasons as to why SIGS may not be appropriate mitigation for an educational facility. Therefore, alternative mitigation measures may be required, which would require engagement with the relevant bodies to identify any appropriate measures. These could be secured by way of an appropriately worded condition or s106 Legal Obligation if planning permission were to be granted.

9.208 The applicant operates a noise penalty scheme, the limits of which are set by DfT as part of the airport's designation under the Civil Aviation Act 1982. Subject to consultation with stakeholders and agreement with DfT, the scheme would be tightened. Table 7.22 sets out the existing and proposed departure noise limits.

When	Times	Noise limit: (dB(A))	
		Current	Proposed
Day	07:00 to 23:00	94	89
Day Shoulder Period	06:00 to 07:00	89	84
Night Shoulder Period	23:00 to 23:30	89	84
Night	23:30 to 06:00	87	84

9.209 The fining structure would remain as current practice, as set out in Table 7.23.

Period	Time	Noise Limit	Fine ≤3 dB above limit	Additional fine >3 dB, per dB(A) or part
Daytime	07:00 to 23:00	89 dB(A)	£1000	£250
Night time	23:00 to 07:00	84 dB(A)	£1000	£1000

9.210 The fines would be paid into the Stansted Airport Community Trust Fund which would be given over to community projects. This is discussed in further detail under Chapter 14. The operation of the scheme and the fund allocation mechanism can be secured by s106 Legal Obligation if planning permission is granted.

9.211 The principle of the mitigation scheme as currently existing and proposed, is in line with the principles of the APF which seeks to ensure that future growth in aviation shares the benefits with local communities. It is also a measure whereby noise levels are reduced and financial mitigation is provided to those communities where the noise limits are exceeded.

9.212 Overall, it is reasonable to consider that the assessment methodology, approach and level of detail contained in the ES is satisfactory. The ES is comprehensive and UDC's consultants advise that they have no doubts over its integrity. The ES demonstrates that the proposed noise impacts should not be materially different between the DM and DC scenarios. Therefore, it can reasonably be concluded there are no grounds to object to the proposed application on noise impact grounds, subject to securing appropriate mitigation by means of conditions and/or s106 Legal Obligation.

D Ground Noise

9.213 Chapter 8 of the ES assesses the impacts of ground noise. This chapter needs to be read in conjunction with the accompanying ground noise assessment set out in Appendix 8.1 (Volume 2 of the ES).

9.214 Paragraphs 9.157 to 159 above set out the policy position with regards to noise.

9.215 This chapter assesses the impacts of the temporary construction period noise as well as the permanent operational noise. The principal sources of ground noise are:

- Aircraft taxiing or holding with main engines in operation at any point between the parking stand and the point at which the aircraft commences its departure roll (start of roll) or exits the runway on arrival. This includes

engine start-up and shut down when parked on the stand and all holding on the taxiways and aprons;

- Aircraft auxiliary power units (APUs) for supplying cabin air and electrical power, and other aircraft services mainly when the main engines are not operating;
- Mobile ground power units (GPUs) which supply the required electrical power to the aircraft and other equipment such as PCA units that supply pre-conditioned air during turnarounds when fixed electrical ground power (FEGP) is not available;
- Aircraft engine ground run (EGR) tests; and
- Fixed plant and equipment

9.216 Due to controls in place regarding the use of GPUs, plus due to the nominal noise impact arising from fixed plant and equipment which is subject to noise attenuation where required, these sources of noise are not considered as part of calculations of the overall ground noise impact.

9.217 Ground noise has been assessed in a similar way as air noise in that the LAeq, 16h metric has been used for daytime noise between 07:00 and 23:00, and the LAeq, 8h metric has been used for night time noise between 23:00 and 07:00. The same predicted aircraft movements and fleet mix have been used for assessing potential impacts in respect of ground noise. This includes an aggregated typical day of operations based on the 92 day summer period referred to in the air noise section.

9.218 Forecast ground noise levels have been compared to:

- The background noise levels prevailing at any assessment position in the absence of noise due to ground activities at the airport
- Threshold levels that reflect the onset of community annoyance to aircraft ground noise, ie 55 dB LAeq, 16h for daytime and 45 dB LAeq, 8h for night time

9.219 Key assumptions include all of the permitted 15 stands on Echo Apron E being operational in 2023 in both the DM and DC scenarios, and also in 2028 DM scenario. The 2028 DC scenario assumes that the additional 3 stands proposed on Echo Apron will also be in use. Echo Apron is located to the west of the bund west of Molehill Green. The proposed stands at Yankee Apron would be used for overnight parking of home-based towed aircraft and would not require the use of APUs. These stands are located towards the centre of the airfield and their use should have a negligible effect on overall ground noise levels.

9.220 Noise certification levels relate to airborne aircraft and noise levels for ground operations are not measured. As such the ERCD confirm that it is appropriate to predict ground noise levels on the basis of departure noise levels. The ground noise study area is approximately 8km x 8km, much smaller than the air noise study area because aircraft engines are at lower power and ground noise is more readily attenuated such as by natural screening.

9.221 Noise assessments have been carried out in respect of 9 locations and background noise levels have been established with a mix of attended and unattended daytime and night time surveys.

9.222 Tables 8.9 and 8.10 set out the calculated noise levels for daytime and night time at the monitoring points. For ease of reference, the case officer has added an extra column to the right end of the two tables below to indicate the difference between 2016 baseline and the 2028 DC scenario.

Table 8.9: Calculated daytime levels at various points

Receptor location	Daytime, LAeq, 16h						Baseline v 2028 DC
	25+Full capacity	2016 baseline	DM 2023	DC 2023	DM 2028	DC 2028	
P1 – Molehill Green	56.7	53.4	55.7	55.8	55.4	56.4	+3
P2 – Gaunts End	56.2	53.6	55.3	55.4	54.9	55.8	+2.2
P3 – Tye Green	56.2	54.2	55.4	55.6	54.8	55.5	+1.3
P4 – Ash Pub	54.8	54.1	55.1	55.3	54.5	52.1	-2
P5 – Bury Lodge	53.5	53.6	54.5	54.7	54.0	48.7	-4.9
P6 – Warmans Farm	49.9	48.9	50.0	50.2	49.4	47.9	-1
P7 - Takeley	46.3	44.3	45.4	45.6	44.9	45.6	+1.3
P8 - Elsenham	44.8	42.8	44.0	44.2	43.5	44.1	+1.3
P9 – Brick End	44.8	42.3	43.8	44.0	43.4	44.3	+2

Table 8.10: Calculated night time levels at various points

Receptor location	Night time, LAeq, 8h						Baseline v 2028 DC
	25+Full capacity	2016 baseline	DM 2023	DC 2023	DM 2028	DC 2028	
P1 – Molehill Green	51.5	49.9	52.1	52.3	52.3	52.5	+2.6
P2 – Gaunts End	51.0	50.1	51.7	51.9	51.8	51.9	+1.8
P3 – Tye Green	51.1	50.9	51.7	51.9	51.7	51.6	+0.7
P4 – Ash Pub	49.6	50.4	51.1	51.4	51.1	48.2	-2.2
P5 – Bury Lodge	48.3	49.7	50.5	50.7	50.5	44.8	-4.9
P6 – Warmans Farm	44.8	45.4	46.1	46.3	46.1	44.0	-1.4
P7 - Takeley	41.1	41.0	41.8	42.0	41.8	41.7	+0.7
P8 - Elsenham	39.6	39.3	40.4	40.6	40.4	40.2	+0.9
P9 – Brick End	39.5	38.8	40.3	40.5	40.4	40.4	+1.6

9.223 The above tables indicate that in 2016 baseline none of the receptors experienced daytime noise levels above the threshold of 55dB LAeq 16h, although Tye Green and the Ash Public House are approaching this level at 54.2 and 54.1dB respectively. In terms of night time noise, receptors P1-P6 experienced noise levels exceeding the threshold of 45dB LAeq 8h.

9.224 The location which would experience the greatest increase in noise levels is Molehill Green with an increase of 3dB for daytime noise and 2.6dB for night time noise in the DC scenario compared to the baseline. However, it should be noted that an increase in noise levels would also arise in the DM 2028 scenario and that the difference in noise levels at this location would be 1dB in daytime and 0.2dB in night time.

9.225 In the DC scenario three receptors would exceed the daytime 55dB LAeq, 16h threshold, compared to just one receptor in the DM scenario. In the DM scenario

Molehill Green (P1) would experience a noise level of 0.4dB above the threshold. However, in the DC scenario this noise level would be 1.4dB above the threshold. In addition, Gaunts End (P2) would experience noise levels 0.8dB above the threshold and Tye Green (P3) 0.5dB above the threshold compared to noise levels of 54.9dB and 54.8dB respectively in the DM scenario.

9.226 Similarly, in the DC scenario four receptors would exceed the night time 45dB LAeq, 8h threshold, compared to six receptors in the DM scenario. Two receptors, Bury Lodge and Warmans Farm would experience betterment with noise levels falling below the night time threshold. See table below for a breakdown in the information.

Receptor	Baseline	2028 DM	Exceed 45dB LAeq, 8h	2028 DC	Exceed 45dB LAeq, 8h	Difference between DM & DC
P1 Molehill Green	49.9	52.3	+7.3	52.5	+7.5	+0.2
P2 Gaunts End	50.1	51.8	+6.8	51.9	+6.9	+0.1
P3 Tye Green	50.9	51.7	+6.7	51.6	+6.6	-0.1
P4 Ash Pub	50.4	51.1	+6.1	48.2	+3.2	-2.9
P5 Bury Lodge	49.7	50.5	+5.5	44.8	-0.2	-5.7
P6 Warmans Farm	45.4	46.1	+1.1	44.0	-1.0	-2.1

9.227 The applicant contends that the reduction in noise levels during the night time period arises because of:

- There being virtually no increase in the number of movements between the 2028 DC and the DM scenario operating conditions due to the overriding constraints imposed by the Government's Night Noise Regulations
- The significant reduction in GA movements under the DC scenario. This has the benefit of bringing into use a greater proportion of new generation lower noise aircraft, replacing small numbers of general aviation and corporate movements which are typically by older generation, noisier aircraft.

9.228 Similarly, the contention made in respect of the reduction in daytime noise levels at the Ash Pub, Bury Lodge and Warmans Farm is directly related to the reduction in GA movements which take place on the northside apron. Receptors P4 – P6 are located in closer proximity to the area of the airfield generally associated with GA movements and are therefore more affected by these movements. Reductions in GA movements would be beneficial to these properties.

9.229 The applicant's conclusion in respect of operational noise is that there should be no adverse effects, with only minor adverse effects arising at Molehill Green due to a daytime increase of 1dB between the DM and DC scenario and an exceedance of the threshold of only 0.1dB.

9.230 The Environmental Health Manager has reviewed the ES and concludes that a comparison of data sets shows negligible impact in the 2028 DC scenario compared to the 25+ permission. The level change when compared to the DM scenario is concluded by him to be equally negligible. Comparisons with the

2016 baseline show increases of +3dB in the worse location (Molehill Green) during the day and +2.5dB at night. As this is a marginal increase over time and that the resultant level when compared to the DM scenario, there should be little impact.

- 9.231 In terms of night time noise, the noise levels would increase above the 45dB LAeq, 8h in 2028. Comparing ground noise contours with and without the development in place, shows they are virtually indistinguishable throughout the surrounding community, except where benefits will arise from reduced activity associated with the northside apron should permission be granted. In those areas ground noise levels are expected to reduce. It remains the case that night time aircraft movements at Stansted are subject to Government control under the Night Noise Regulations and, as a consequence, the airport will reach its cap on movements before 2028 whether or not permission is granted for this application.
- 9.232 Mitigation measures in respect of ground noise are partially covered by those set out in the air noise section above.
- 9.233 In terms of ground noise, the findings of the ES are not disputed and the proposed mitigation measures are considered to be acceptable. The Environmental Health Manager (Protection) has recommended a condition requiring a noise envelope contour to not exceed the predicted Do Minimum 54dB LAeq, 8h contours set out in the ES. This would ensure that the overall population exposed to the SOAEL at night does not increase over what could occur if the application did not proceed.
- 9.234 Whilst the principle of a night noise contour at 54dB LAeq, 8h could potentially be welcomed, in this instance this would not relate to the development applied for. The application relates to the increase in passenger numbers and a change to the mix of ATMs per annum. However, it does not relate to any changes to the permitted number of flights at night, these being controlled by the Night Noise Regulations. On this basis, such a condition would fail to meet the test of being relevant to planning and to the development to be permitted (paragraph 55 of the NPPF).

Construction noise

- 9.235 Construction noise would only occur in the period 2021-2 in respect of the engineering works applied for in this application. Other engineering works already have the benefit of planning permission and are envisaged to be carried out prior to this timeframe. In addition, other works may come forward either as a result of other applications or as permitted development. However, the ES considers the potential impacts in respect of ground noise for the engineering works as applied for. The main focus of the construction noise assessment is the key sensitive night time period.
- 9.236 Table 8.25 sets out the calculated construction noise levels at the sensitive receptors together with the change assessed by the applicant.

Receptor Location	Night time noise level, LAeq, 1h (dB)			
	Baseline	Construction	Combined	Change
P1 – Molehill Green	41.0	43.1	45.2	+0.2
P2 – Gaunts End	31.0	45.7	45.8	+0.8
P3 – Tye Green	48.0	42.3	49.0	+1.0
P4 – Ash Pub	33.0	43.2	43.6	No change*
P5 – Bury Lodge	47.0	42.3	48.3	+1.3
P6 – Warmans Farm	40.0	40.1	43.1	No change*
P7 – Takeley	43.0	35.9	43.8	No change*
P8 – Elsenham	48.0	35.1	48.2	+0.2
P9 – Brick End	35.0	31.5	36.3	No change*

* Baseline level lower than 45dB threshold

- 9.237 The above table indicates that all locations will experience increases in noise levels, ranging from an increase of 0.2dB to 10.6dB at the Ash Public House. However, these have been assessed as having a negligible significance as the increases would either result in noise levels remaining below the threshold of 45dB or would give rise to increases of less than 3dB above existing levels. These are reasonable conclusions to have reached and these findings are not disputed.

E Surface Access Noise

- 9.238 Chapter 9 of the ES assesses the impacts of surface access noise. This chapter needs to be read in conjunction with the accompanying transport assessment (Volume 3 of the ES) and the traffic data set out in Appendix 9.1 (Volume 2 of the ES).
- 9.239 Paragraphs 9.157 to 159 in the Air Noise section above set out the policy position with regards to surface access noise.
- 9.240 This chapter assesses the surface access noise impacts arising from the proposed construction and operational phases of the development. Whilst rail is a form of surface access which generates noise, this has been scoped out of the assessment. The basis for this decision is the fact that the proposed capacity changes at the airport will not lead to any change to the activity on the railway. AGA separately proposes to introduce 12-car Stansted Express trains in 2019 but without any changes to the number of trains per day. This alteration to existing capacity will occur with or without the development the subject of this application.
- 9.241 The Design Manual for Roads and Bridges (DMRB) sets out the noise assessment procedures for undertaking highway works such as building new roads. This provides thresholds at which potential impacts may start to become apparent, based on changes in 18-hour daytime noise levels (06:00-24:00) over both short and long term scenarios. For the proposed development, the long term changes are appropriate to assess as the forecast growth of the airport would lead to gradual increases in traffic flows to 2028. Specifically, the proposed development differs from the type of development that DMRB primarily relates to. The DMRB requires a two-stage process to be undertaken, the short term on the opening of the new road and long term operational effects. In this instance there is no new road and therefore no short-term effects.

- 9.242 Calculations are based on the Department for Transport calculation of Road Traffic Noise (CRTN). The assessment is based on noise levels as defined at 10m from the edge of the carriageway. The method adopted is universally applied and considered to be acceptable.
- 9.243 In carrying out the assessment the 2028 DC scenario has been compared with the 2028 DM scenario. A further assessment is made comparing the 2028 DC with 2016 baseline.
- 9.244 Comparisons of the 2028 DC and 2028 DM scenarios show that noise levels would increase between 0.1dB and 0.7dB, with the largest increase being at Thremhall Avenue. Comparisons between the 2028 DM and 2016 baseline indicate that increases will be larger, ranging from 0.7dB to 3.8dB, the largest increase being at Round Coppice Road.
- 9.245 The changes in noise levels would be negligible, with the exception of the 3.8dB increase at Round Coppice Road in comparison to baseline levels. The nearest receptor to this road is the Novotel Hotel, more than 150m from the road. The ES states that it should be noted that this increase primarily occurs as a result of the permitted uplift of the baseline (2016) level of annual passenger throughput up to 35mppa under the 2028 DM scenario, coupled with the proposed employment allocation at Northside, rather than as a result of the additional uplift in annual passengers triggered by the proposed 43mppa development.
- 9.246 The other building that would be affected by the proposals is the Stansted College building which opened in September 2018. However, the ES states that the design of the building includes high performance glazing and mechanical ventilation, due to the building's proximity to the runway. These features have been included on all elevations, not just those facing the runway. On this basis, it is concluded that the increases in Round Coppice Road traffic should not have any significant effects on staff and pupils within the College.
- 9.247 In conclusion, the ES considers that the impacts of surface access noise would be negligible. Cumulative impacts have been taken into consideration and no mitigation is identified as being required. These are reasonable conclusions to have reached and these conclusions are not disputed.

F Air Quality

- 9.248 Chapter 10 of the ES assesses the impacts of air quality resulting from development-related traffic. This chapter needs to be read in conjunction with the accompanying appendices 10.1 to 10.5 (Volume 2 of the ES) and the Technical Note, Annex 4A of the Consultation Response and Clarifications Document, July 2018. In addition, the information contained in Annex 1 of this document (as amended by Revision to Annex 1: Information for Epping Forest July 2018) now requires the potential impacts on Epping Forest to be discussed under Air Quality and not Biodiversity.
- 9.249 Adopted Uttlesford Local Plan Policy ENV13 identifies poor air quality zones, which are not within the application site. It also states that development that would involve users being exposed on an extended long-term basis to poor air quality near ground level will not be permitted. This policy is generally consistent with the NPPF, although the latter document sets out a requirement that any development in Air Quality Management Areas and Clean Air Zones is consistent

with the local air quality action plan. The policy therefore carried moderate weight.

- 9.250 Uttlesford District Council has designated one AQMA in Saffron Walden. Given the distance between the application site and the AQMA is it considered that the proposals should not result in significant impacts to the AQMA.
- 9.251 Adopted Uttlesford Local Plan Policy ENV7 seeks to protect designated sites, such as Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR). Development will only be permitted where the need for development outweighs the particular importance of the nature conservation value of the site or reserve. The policy also seeks to protect other areas of nature conservation significance, such as local wildlife sites, ancient woodlands and other wildlife habitats. This policy is only partially consistent with the NPPF with the emphasis shifting from the need for development to the benefits needing to clearly outweigh the harm. In addition, there are additional requirements under the Habitats and Species Regulations (2010) which relate to European designated sites. Therefore, the policy has little weight.
- 9.252 Paragraph 181 of the NPPF states:
- “Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”*
- 9.253 Paragraph 175 seeks to protect biodiversity, including protected species, SSSIs, ancient woodland and ancient or veteran trees, and to conserve or enhance biodiversity.
- 9.254 The APF (2013) sets out the government’s position in respect of air quality in and around airports. It identifies sources of pollution around airports as including aircraft engines, airport-related traffic on local roads and surface vehicles at the airport. The most important pollutants are oxides of nitrogen (NO_x) and particulate matter (PM).
- 9.255 It recognises that limits in respect of PM are largely met, but challenges remain with nitrogen dioxide, while pressures from increasing pollution, transport and land use mean that considerable efforts to improve air quality to protect health and the environment continue to be needed.
- 9.256 Paragraph 3.51 of the APF states that studies have shown that NO_x emissions from aviation-related operations reduce rapidly beyond the immediate area around the runway. Road traffic remains the main problem with regard to NO_x in the UK.
- 9.257 Paragraph 1.9 of “Beyond the Horizon” (June 2018) states:

“Most of the concerns raised can be addressed through our existing policies as set out in the 2013 Aviation Policy Framework, or through more recent policy updates such as the new UK Airspace Policy or National Air Quality Plan. For the majority of environmental concerns, the government expects these to be taken into account as part of existing local planning application processes. It is right that decisions on the elements which impact local individuals such as noise and air quality should be considered through the appropriate planning process and CAA airspace change process.”

9.258 In the area near to the airport, adjacent East Herts District Council’s adopted Local Plan has saved Policy ENV27 which relates to air quality which states:

“(I) The Council will have regard to the potential effects of a development on local air quality when determining planning applications. Consideration will be given to the impact caused by both the operational characteristics of the development (industrial, commercial and domestic) and the traffic generated by it, and development which will significantly increase air pollution will not be permitted. Where development proposals are likely to involve emissions into the air, submission of appropriate details will be required to enable a full judgement of the impact of the development to be made.

(II) Any development within designated Air Quality Management Areas must have regard to the strategy for reduction of pollutants in such areas and to guidelines for ensuring air quality is thereafter maintained at acceptable levels as set out in the national air quality strategy.”

9.259 The East Herts District Plan has been the subject of Examination and the Inspector’s Final Report and Schedule of Main Modifications was received on 9 July 2018. In respect of Policy EQ4, the Inspector considered that the criteria within the policy were not precise or comprehensive enough to be effective. Modification MM/24/01 rewrites the policy to make it more comprehensive, taking account of legislation and national policy on air quality. This modification results in the policy being sound.

9.260 Modification MM/24/01 states:

“I. The effect of development upon air quality is a material consideration. All applications should take account of the Council’s Air Quality Planning Guidance Document, which details when an air quality assessment is required.

II. All development should take account of the Council’s Air Quality Action Plan, local Air Quality Strategies, Local Transport Plans, as well as national air quality guidance.

III. All developments should include measures to minimise air quality impact at the design stage and should incorporate best practice in the design, construction and operation of all developments.

IV. Where development (on its own or cumulatively) will have a negative impact on local air quality during either construction or operation, mitigation measures will be sought that will remove overriding impacts, such as an air quality neutral or negative development. Evidence of mitigation measures will be required upfront.

V. Where on-site mitigation is not sufficient, appropriate off-site mitigation measures may be required. Where adequate mitigation cannot be provided, development will not normally be permitted.

VI. Developments must not:

- *Lead to a breach or worsening of a breach of UK or EU limit values;*

- *Lead to a breach or worsening of a breach of an Air Quality objective or cause the declaration of an Air Quality Management Area or;*
- *Prejudice the implementation of any Air Quality Action Plan or local air quality strategy.”*

- 9.261 Following receipt of the Inspector’s Final Report on the Examination of the East Herts District Plan, an Extraordinary Council meeting was arranged for Tuesday 11 September with the intention that the Council would be asked to determine to adopt the Local Plan. However, the SoS issued a Holding Direction on that date which prevented EHDC from adopting the Local Plan. Subsequently, on 12 October, the Holding Direction was lifted although, at the time of writing the report, the District Plan had not been adopted, although UDC was advised that EHDC proposed to hold an Extraordinary meeting of the Council on 23 October 2018 with a view to adopting the Plan. Notwithstanding this, given the fact that Policy EQ4 has been tested and found to be sound it carries significant weight.
- 9.262 East Herts District Council has designated three AQMAs and the one of concern in respect of this application is the Bishop’s Stortford AQMA which is centred on the Hockerill traffic lights junction close to the town centre. East Herts has published an Air Quality Action Plan (AQAP) 2017/18 – 2019/20. SP6 of the AQAP states that air quality measures will be taken into consideration on all planning applications, particularly when these are within or closely adjoining an AQMA. SP9 of the AQAP seeks to ensure that developers have taken sufficient steps to minimise any increase in air pollution.
- 9.263 The ANPS (2018) sets out where planning considerations in respect of air quality are likely to be relevant. These are:
- within or adjacent to Air Quality Management Areas, roads identified as being above limit values, or nature conservation sites (including Natura 2000 sites and Sites of Special Scientific Interest);
 - where there would be effects sufficient to bring about the need for new Air Quality Management Areas or change the size of an existing Air Quality Management Area, or bring about changes to exceedances of the limit values, or have the potential to have an impact on nature conservation sites; and
 - after taking into account mitigation, where there would be a significant air quality impact in relation to Environmental Impact Assessment and / or to a deterioration in air quality in a zone or agglomeration.
- 9.264 The ES assesses the impacts of NO₂, PM₁₀ and PM_{2.5} for human health and NO_x for the natural environment. The study area is 15km x 15km centred on the airport and focusses on the potential impacts of the development on major roads and the main towns around the airport.
- 9.265 Within the study area 244 representative receptors were selected for assessment (49 schools/nurseries, 7 hospitals/care homes and 188 dwellings). Sensitive ecological receptors have also been identified with 6 falling within the study area.
- 9.266 Paragraph 10.37 of the ES addressed Epping Forest Special Area of Conservation (SAC) which is some distance south of the airport. Following an objection from Natural England, further work has been undertaken with regards to the potential impacts of increased airport related traffic on air quality within Epping Forest SAC. This issue was originally covered in the Biodiversity section

of ES Chapter 16 (Non-Significant Topics). In light of Natural England's recent advice, this is now being treated as an elevated concern within the air quality general topic area.

- 9.267 It is established throughout the ES that the construction period is expected to be 2021/2 and therefore predicted to take place prior to exceeding the currently permitted 35mppa limit. Construction works would be located away from sensitive receptors. In addition, vehicular movements would not be significant and therefore should not give rise to a level of increase of emissions which would result in harmful impacts on sensitive receptors. Therefore, the construction phase, with its proposed mitigation by way of a Construction Environmental Management Plan should ensure adverse harm would not arise as a result of pollutants.
- 9.268 With regards to the operational phase, the following pollution sources were assessed:
- Aircraft main engines in the landing and take-off (LTO) cycle;
 - Aircraft auxiliary power units (APUs) while in use on the ground
 - Ground support equipment (GSE), namely airside vehicles which handle aircraft turn-arounds, load and unload baggage and cargo, and conduct inspections and essential maintenance of airfield infrastructure, particularly the runway which is in constant use;
 - Other airport sources, including car parks, airport heating plant and the fire training ground; and
 - Road vehicles using the local and strategic highway network around the airport.
- 9.269 The applicant created a model to allow for the prediction of effects at future years using industry standard modelling software which was also used to inform the recommendations made by the Airports Commission. This model requires verifying to the existing monitored levels which is achieved through replicating the existing emissions sources in the area and including them in the modelled input, then adding them to the background levels which make up all other sources not included in the model. The applicant has included sources from aircraft and vehicles on the local highway network in their model and obtained the emissions for each of these from appropriate sources.
- 9.270 The background pollutant concentrations used for the modelling were taken from the National Air Emissions Inventory with the road transport and aviation emissions subtracted from the background so as not to double count. The model has been verified to local monitoring to ensure that the results from the model are accurately representing the actual monitored levels. This verification showed that the modelled concentrations of NO₂ were significantly under-predicted within Bishop's Stortford and Stansted Mountfitchet. However, the Council's air quality consultant confirms that the report provides enough information to consider the effect of the scheme with the required elevated background and that the effect of the scheme (inclusive of the enhanced verification factor) should be 'negligible' with increases in pollution levels being $\leq 0.1 \mu\text{g}/\text{m}^3$.
- 9.271 The applicant was required to carry out sensitivity analysis for multiple years to ensure the meteorological data for the baseline year was representative. Sensitivity testing was undertaken for 2014, 2015 and 2016 and demonstrated that the baseline data was representative.

- 9.272 It is a generally accepted principle that emissions will reduce in future years as technology becomes more efficient and more sustainable transport measures are encouraged amongst the general population. However, the rate at which emissions will improve is disputed and the DEFRA predictions which the applicant has used for their assessment are potentially over optimistic. To provide a sensitivity analysis, the applicant was requested to carry out analysis using existing baseline emissions in future year scenarios assuming that there will be no reduction in emissions. Whilst the results from this sensitivity modelling were higher than those in the original ES, the relative significance of the effect as a result of the scheme did not change and remains in the 'negligible' band.
- 9.273 The Council's consultants concluded that, based on the information within the ES and the additional information supplied, there should be no predicted increase in pollutant levels at modelled receptors in Stansted Mountfitchet. The scheme would increase pollutant emissions as a result of additional vehicle movements within the Bishop's Stortford Air Quality Management Area where levels of pollutants are already above the level where health effects are likely to be observed in the most sensitive members of the population. These health effects should be considered against the benefits of the scheme and an appropriate balance of mitigation sought.
- 9.274 Adopted Uttlesford Local Plan Policy ENV13 predates current legislation in respect of air quality. The draft policy in the Regulation 19 Plan has yet to be tested for soundness. However, in this instance the impacts will arise in Bishop's Stortford which is within the administrative district of East Herts District Council. The East Herts District Plan has been examined and the soundness of their policy in respect of air quality was been found to be sound and has significant weight.
- 9.275 Policy ENV27 of the Regulation 19 East Herts District Plan requires applications to be supported by an Air Pollution Assessment in line with the Council's Air Quality Planning Guidance Document. This sets out a requirement for Major Developments to be accompanied by a detailed air quality assessment to determine the impact on public health and the local environment. The methodology to be used for the determination of pollutant concentration change should meet the requirements of the Defra Technical Guidance Note (TG.16) (Defra 2016). The use of the ADMS-Airports model is an appropriate assessment in this instance.
- 9.276 The Air Quality Planning Guidance Document then requires the calculation of pollutant emission costs (known as damage cost) from the development to be carried out using the most recent Defra Emissions Factor Toolkit. This will determine the level of mitigation required. To date, this work has not been carried out.
- 9.277 However, it should be recognised that DEFRA's "Valuing impacts on air quality: Supplementary Green Book guidance" is a supplementary document to DEFRA's Green Book which cost assesses various elements of development proposals as a balancing exercise, and not just air quality impacts in isolation. However, paragraphs 1.6 and 2.1 explain that a damage costs approach is a recommended approach only. Therefore, there is no requirement to follow that approach. The NPPF (2018) does not require that approach to be followed for Air Quality and instead seeks to limit the need to travel and offer genuine transport solutions and mitigate impacts through measures such as traffic and travel management. Decisions should take account of AQMAs. See paragraphs 103 and 181.

Paragraph 181 explains that new development inside an AQMA needs to be consistent with the air quality action plan. The application is not inside an AQMA and has addressed transport measures.

- 9.278 The application includes measures consistent with the NPPF and reflecting the detail of those in the East Herts Air Quality Planning Guidance for developments in the EHDC area classified as Major such as local sourcing of staff, products and raw materials, development of car sharing initiatives, provision of low emission shuttle bus, provision of low emission fuelling infrastructure (electric car charging points), provision of new or enhanced public transport services to the site, and supporting sustainable travel initiatives. The applicant is already undertaking many of these initiatives. For example, their Staff Travel Plan encourages car sharing. The Transport Forum helps to support sustainable forms of travel by funding new public transport services or routes. The Airport's Sustainable Development Plan also includes "Meet the Buyers" events where local companies have the opportunity to promote themselves to secure local business contracts.
- 9.279 The continuation of those mitigation measures in respect of air quality effects, in particular in relation to sustainable travel initiatives, would be required if planning permission is granted, and this could be secured by way of s106 Legal Obligation.
- 9.280 Turning to impacts on ecological features as a result of air quality, an assessment in accordance with the DMRB HA 207/07 and the Environment Agency's H1 Guidance has been carried out in light of paragraph 10.34 of the ES stating that deposition of pollutants derived from NO_x emissions contributes to acidification and/or eutrophication of sensitive habitats leading to a loss of biodiversity. Nitrogen deposition rates and information on sensitive habitats for the designated sites were taken from the APIS (Air Pollution Information System) website.
- 9.281 The DMRB guidance recommends the reduction in total nitrogen deposition rates of 2% per year based on predicted improvements in vehicle technologies. Sensitivity testing using 2016 road traffic emission factors for future assessment years was also carried out following discussions between the Council's consultant and the applicant.
- 9.282 The original conclusions of the ES, paragraphs 10.127-132, were that there would be no significant effects on any of the identified ecological receptors within the study area. The conclusion of the sensitivity testing found that exceedances of the NO₂ air quality standard are predicted at a few more receptor locations compared to the ES: at 5 receptors out of the 244 assessed in 2023 rather than one; and six receptors in 2028 rather than zero. The change in concentrations due to the proposed development at all of these locations would be very small, no greater than 0.1µg/m³.
- 9.283 Exceedances of the NO_x air quality standard are also predicted at the western boundary of Elsenham Woods SSSI. No exceedances are predicted at any of the other ecological receptors, including the Hatfield Forest SSSI and NNR. The predicted changes in nitrogen deposition at the Hatfield Forest SSSI and NNR and the Elsenham Woods SSSI would be less than 1% of the relevant lower critical loads for those site and therefore no significant effects are anticipated.

- 9.284 The Council's consultant confirms that they have no concerns with regards to ecological receptors.
- 9.285 In terms of ecological receptors, the assessment has also been considered by Natural England. They welcome the precautionary approach carried out in the sensitivity testing and note the results but raise concerns regarding the use of TEMPro as this may not accurately reflect the actual environmental conditions over the mid-longer term that ecological receptors needs to function within.
- 9.286 With regards to impacts on Hatfield Forest SSSI and NNR, Natural England welcomes the commitment to continue to monitor impacts on the receptor and would wish to ensure that this continues beyond the 35mppa limit. This could be secured by way of s106 Legal Obligation with a requirement to identify and implement mitigation measures if required.
- 9.287 Elsenham Woods SSSI is already subject to nitrogen deposition that significantly exceeds the Critical load for its SSSI woodland habitat feature. In recognition that the proposed 35mppa+ development is predicted to increase road traffic and nitrogen deposition onto Elsenham Wood SSSI, Natural England advises it would be appropriate for Stansted Airport to undertake any necessary measures to reduce NO_x outputs and nitrogen depositions. This would be consistent with the aims and targets of the Airport Sustainable Development Plan to 'reduce air pollution' deposition within the woodland habitats of the Airport owned Elsenham Woods SSSI. This could be secured by way of a condition or s106 Legal Obligation.
- 9.288 The Council's Ecologist has advised that monitoring of Elsenham Woods SSSI should become part of any consent should planning permission be granted. They have also advised that the Elsenham SSSI Management Plan should be updated in accordance with the Airport Sustainable Development Plan. Whilst this is recognised as being beneficial to the Elsenham Woods SSSI there needs to be a distinction between the applicants' statutory duty as the owner of Elsenham Woods SSSI under legislation outside of the planning system, and the requirements as mitigation in respect of any planning permission granted.
- 9.289 In terms of Quendon Wood SSSI and High Wood Dunmow SSSI, Natural England accepts the conclusions of no significant impact.
- 9.290 With regards to Epping Forest SSSI, this is divided up into units given its scale. Units 103 and 201 are close to the M11 between junctions 6 and 7 and SSSI unit 106 is within 200m of the M25. This proximity necessitates further assessment in accordance with DMRB guidance and consideration within the ES.
- 9.291 The original additional information submitted made no reference to units 103 and 201 and as such Natural England assumed that distance measurements have been taken from the centre line of the carriageway and that this distance is regarded to be greater than 200m thus eligible for screening out in strict adherence to DMRB guidelines.
- 9.292 An additional Technical Note was submitted on 10 August covering the SSSI receptors between junctions 6 and 7 of the M11. The plan attached to the Technical Note indicates that unit 201 (for some reason appears to be referred to as receptor 13 in the report) is within 200m of the M11, whereas unit 103 is beyond the 200m range. Using modelling of traffic flows between junctions 8 and 7 of the M11, which is likely to result in a conservative estimate as it ignores

traffic leaving the motorway at junction 7, predicted traffic flows in 2028 in the DC scenario are predicted to be 5,149 AADT (2-way). This is predicted to increase nitrogen deposition by 0.08kgN/ha/yr, which is below 1% of the minimum critical load. Levels of deposition drop off rapidly away from the road.

- 9.293 Natural England notes that Epping Forest SSSI unit 201 is mainly Oak-Hornbeam woodland with additional interest provided by the ponds. For the purposes of this assessment, the woodland habitat (including ground flora, veteran trees and epiphytes) and wetlands are the main SSSI interest features that need to be considered from an air quality perspective. In this context and at this location, the minimum Critical load threshold for Nitrogen is correctly identified as 10kgN/Ha/Year. Natural England note that the deposition rates fall below the 1% threshold of significance. They also note that this area of Epping Forest is already subject to Nitrogen deposition that significantly exceeds the Critical load for its SSSI woodland and wetland habitat features and this development is likely to contribute to prolonging the exceedances of Nitrogen loading.
- 9.294 Natural England acknowledges that the strict application of current guidelines (eg, DMRB) for SSSI and EIA-linked assessments provide an accepted justification for not regarding the impact as 'significant' and therefore not requiring further assessment or mitigation. Ideally, mindful of sustainability and SSSI targets, this section of M11 adjacent to Epping Forest SSSI unit 201 should be subject to periodic traffic monitoring and linked AQ modelling to verify the predictions to see whether further assessment and remediation is necessary. In light of the context, Natural England does not expect this provision, but for the record would support a solution that included this provision within any Highways-linked obligation. However, given the level of predicted impact it is not considered that this level of mitigation can be justified in respect of this application.
- 9.295 Epping Forest is also designated as a Special Area of Conservation (SAC) and therefore an assessment under the Conservation of Habitats and Species Regulations 2010 (as amended) is required. On 10 May 2018, Natural England provided Advice on the Scope of an Appropriate Assessment that it considered was required because critical loads of Nitrogen Oxides and Nitrogen deposition are currently exceeded for the SAC and a likely significant effect, alone or in combination, from the traffic resulting from the application could not be discounted. Of particular importance is unit 105 which is located within 200m of the stretch of the M25 between junctions 25 and 26.
- 9.296 Natural England notes that the predicted contributions to NO_x Critical Levels and Nitrogen deposition Critical Loads from the M25 are well below 1%, and so it is reasonable to conclude for SSSI unit 105 that the proposed development 'alone' can avoid a likely significant effect on the SAC features within SSSI unit 105, however with reference to the Wealden case there was still a need to consider whether there is a likely significant effect 'in combination' with other plans and projects.
- 9.297 For SSSI unit 109, also located between junctions 25 and 26 of the M25, Natural England notes distance measurements have been taken from the centre line of the carriageways and this distance is greater than 200m. Strict adherence to the DMRB guidelines (HA 2007) indicates that it is acceptable to screen out any further HRA assessment for SSSI unit 109, either 'alone' and/or 'in combination'.

- 9.298 Natural England welcomed the detail provided in the Habitats Regulations Assessment to enable further consideration of the 'in combination' effects and advises that if the background concentration/deposition is currently exceeding the environmental benchmark and the new development contribution will cause an additional small increase then, a decision will have to be made on a case by case basis. For this case, the complexities involved with the likely 'in combination effects' associated with the HMA Local Plans and the highlighted concerns about the ecological sensitivity of Epping Forest SAC (and SSSI) features has required this proposed development to be considered in more detail.
- 9.299 The revised Epping Forest District Council traffic assessments and linked Local Plan HRA are not yet available for consideration. To enable Natural England to meet the consultation timescales for this application the council has provided advice based on the information that is available, rather than requesting a further extension to the consultation period to allow for this additional third party 'in combination' information. Natural England notes the reasonable assumption that the M25 carries a wide range of longer distance trips and acknowledges that the local road B1393, which runs through Epping north to M11 J8 has no direct connection for traffic to access the M25 at this assessed location. Natural England notes the predicted AADT increase of 12 for the B1393 that can be attributed to the Stansted Airport 35+ development, which is very small compared with the predicted increases >1000 AADT that have been attributed to the Local Plan growth (available HRA figures). Based on assurances from the applicants that the assessments have adhered to available standard guidelines it is reasonable to conclude that the Stansted Airport development would not significantly contribute to traffic levels on the local Epping road network, whereas the growth associated with HMA Local Plans will significantly contribute to the local roads and potentially other major roads including the M25. With an absence of locally validated 'in combination' traffic and AQ assessments for the B1393 at this stage. Natural England is minded to accept the use of TEMPro growth for assessment purposes and note for future reference the predicted AADT contributions that would be required to meet 1% NOx threshold.
- 9.300 The Epping Forest Survey Note (Appendix 3 of the document Revision to Annex 1: Information for Epping Forest July 2018) helpfully provides additional detail that supports Natural England's previous advice. Natural England notes that a condition survey undertaken in 2009 confirms that the 'zone of influence' within the SSSI unit 105 is Nitrogen polluted when considering its Lichen Indicator Scores and other notable field signs (eg, signs of stress, elevated insect damage and dominance nitrogen-loving field layer where present). This aligns with their observations and concerns that 'Epping Forest SSSI unit 105 (within SAC) has been subject to Nitrogen deposition above Critical Loads for a prolonged period resulting in Natural England identifying the unit as a 'SSSI Threat' and an 'SAC IPENS (Improvement Programme for England's Natura 2000 sites) issue' since at least 2009. This is reducing the capacity for sensitive SAC features and their supporting habitats to maintain or achieve favourable condition and/or favourable conservation status.'
- 9.301 Natural England note the applicant's evidence of the lack of clear trend between the % lichen cover and the change in the distance from the M25, but also recognise the increase from 'Nitrogen Polluted' to 'Very Nitrogen Polluted' (based on Lichen Indicator Score / Nitrogen Air Quality Index) with increasing proximity to the M25 (ie, comparing c200m with c50m distances from the M25). Natural England's considers that the assessment helpfully contributes to their understanding of how the features of this specific area of the SSSI, SAC are

performing at different distances from the M25 and also demonstrates the challenges within the short timescales of the planning process to obtain definitive proof that elevated NO_x and Nitrogen deposition from development will cause a significant and quantifiable impact.

- 9.302 When considering the 'in combination' figures generated by TEMPro for the Stansted 35+ traffic on the M25, Natural England notes the maximum increase in nitrogen deposition into this discrete area of SSSI unit 105 of the SAC is predicted to be 0.02kgN/ha/yr. This is well below the 1% level of the Critical Load for this woodland area of the SAC and the modelled reductions in Nitrogen deposition at increasing distances from the M25 is a reasonable assumption based on general studies. Natural England state that it is not yet clear to them what the likely increase in Nitrogen deposition will be from the B1393 onto this area of the SSSI unit 105 that can be attributed to the increased traffic generated by the HMA Local Plans. It is anticipated that the effect of the forthcoming Local Plans on the local roads and the adjacent SAC areas (including the B1383 and SSSI unit 105) will have to be considered as part of their HRA assessment process.
- 9.303 However, based on available and submitted information, Natural England broadly accepts, in its further representation of 31 August 2018, that the application of the distance criteria and the 1% significance threshold at this location for this development and generally accepts that the Stansted 35+ development can avoid an adverse effect on the integrity of Epping Forest SAC, either alone and in combination with other relevant plans or projects.
- 9.304 This does not mean that Natural England could then rule out a likely impact on the SSSI features within SSSI unit 105 caused by this scale of development-linked Nitrogen deposition if it were considered in combination with unexpected levels of growth beyond TEMPro assumptions, but it merely acknowledged that the strict application of current guidelines (eg, DMRB) for SSSI and EIA-linked assessments provide an accepted justification for not regarding the impact as 'significant' and therefore not requiring further assessment or mitigation. Ideally, mindful of sustainability and SSSI targets, this section of M25 adjacent to Epping Forest SSSI unit 105 should be subject to periodic traffic monitoring and linked AQ modelling to verify the predictions to see whether further assessment and remediation is necessary. In light of the context, Natural England advised that it does not expect this provision, but for the record would support a solution that included this provision within any Highways-linked obligation.
- 9.305 Notwithstanding the advice of Natural England on 31 August 2018 that it "broadly accepts the application of the distance criteria and the 1% significance threshold at [location unit 105] for this development and generally accepts that the Stansted 35+ can avoid an adverse effect on the integrity of Epping Forest SAC, either alone or in combination with other relevant plans or projects", in parallel and to ensure that the Council complies with Regulation 63 of the Conservation of Habitats and Species Regulations (2017), and pursuant to the Advice of Natural England in relation to its scope and in light of its representations, Place Services was commissioned to carry out an Appropriate Assessment (<https://uttlesford.moderngov.co.uk/documents/s8354/Place%20Services.pdf>). This Assessment (11 October 2018) concluded in paragraphs 4.5 to 4.32 and Table 4.34 that, alone, the 35+ Project "Do Minimum" scenario there is no potential for Adverse Effects on Integrity of the Epping Forest SAC due to changes in air quality from traffic generation as a result of increased traffic flow

on the M25 from the 35+ project along under the “Do Something” scenario. It also concluded, at paragraphs 4.37 to 4.59, in particular paragraphs 4.58-4.59, that the 35+ development, acting in combination with the plan and projects in Table 4.56 “only makes an insignificant contribution to perpetuating the situation of the Critical Loads and Levels being exceeded”. Paragraph 4.58 assessed in conclusion such contribution of emissions from the 35+ development as “de Minimis”. The Conclusion summarises the assessment, at paragraph 5.3, along or in combination: the Annex I SAC will not be reduced by the Project; there will be no direct adverse effects by the Project on Annex II species; there will only be “de Minimis” indirect adverse effects on SAC Annex II species; there will be no change to habitat composition from the Project; and the Project will not interrupt or degrade the processes that support the SAC and species justifying designation. That conclusion was also supported by particular advice summarised in paragraphs 5.4-5.6 that included further vegetation surveys. The conclusion at paragraph 5.7 is that the application will have no Adverse Effect on the Integrity of the Epping Forest SAC objectives, alone or in combination. Therefore, Regulation 63 does not prevent the development, subject to other considerations, being granted consent and Uttlesford District Council can demonstrate its compliance with the UK Habitats Regulations 2017. In addition, paragraph 177 of the NPPF (2018) does not prevent the development engaging the paragraph 11 presumption in favour of sustainable development since an appropriate assessment is not required and has now been done.

- 9.306 The conclusions of Natural England are also noted, but their request for monitoring at Epping Forest appears to not have taken account of the Appropriate Assessment above and would not satisfy the tests as set out in Paragraph 56 of the NPPF due to the fact that the proposals would not result in any significant impact on this ecological receptor.

G Socio-Economic Impacts

- 9.307 In more detail that has been set out above in relation to the economic contribution of the application proposals and need, Chapter 11 of the ES assesses the socio-economic impacts of the proposal. This chapter needs to be read in conjunction with the accompanying appendices 11.1 and 11.2 (Volume 2 of the ES).

- 9.308 The NPPF (2018) sets out the principles of sustainable development and the document must be read as a whole. In respect of economic development, paragraph 80 states:

“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.”

- 9.309 The ANPS (2018) sets out the importance of aviation to the UK economy in Section 2. This includes employment and economic benefits, including those associated with freight and tourism.

9.310 Paragraph 2.9 refers to the position in respect of Brexit. It states:

“The importance of aviation to the UK economy, and in particular the UK’s hub status, has only increased following the country’s decision to leave the European Union. As the UK develops its new trading relationships with the rest of the world, it will be essential that increased airport capacity is delivered, in particular to support development of long haul routes to and from the UK, especially in emerging and developing economies.”

9.311 Notwithstanding the benefits of the aviation industry, the government recognises that there are constraints due to capacity issues. Aviation demand is likely to increase significantly between now and 2050 and all major airports in the south east of England are expected to be full by the mid-2030s, with four out of five full by the mid-2020s (paragraph 2.12).

9.312 Paragraph 2.14 states that the consequences of not increasing airport capacity in the South East of England would be detrimental to the UK economy and the UK’s hub status. Restrictions on international connectivity would result in airlines seeking to maximise profits with routes being prioritised to other locations. In addition, operating at capacity means there would be little resilience to unforeseen disruptions, leading to increased delays.

9.313 Paragraph 2.16 sets out the Government’s position with regards to not expanding airport capacity. It states:

“The Government believes that not increasing capacity will impose costs on passengers and on the wider economy. The Airports Commission estimated that direct negative impacts to passengers, such as fare increases and delays, would range from £21 billion to £23 billion over 60 years. Without expansion, capacity constraints would impose increasing costs on the rest of the economy over time, lowering economic output by making aviation more expensive and less convenient to use, with knock-on effects in lost trade, tourism and foreign direct investment.”

9.314 Chapter 1 of the APF (2013) sets out the aviation industry’s contribution to the UK economy, including the fact that it provides better access to markets, enhances communications and business interactions, facilitates trade and investment and improves business efficiency through time savings, reduced costs and improved reliability for business travellers and air freight operations.

9.315 One of the main aviation objectives is to ensure that the UK’s air links continue to make it one of the best connected countries in the world. This includes increasing links to emerging markets so that the UK can compete successfully for economic growth opportunities. This will increase in importance following Brexit.

9.316 In addition to national and aviation policy, the importance of economic development is set out in a raft of local strategies, policies and guidance including:

- The London-Stansted-Cambridge-Corridor (LSCC) Growth Commission
- South East LEP Strategic Economic Plan
- Economic Plan for Essex
- Haven Gateway Partnership A120 Campaign
- Uttlesford District Council Regulation 19 Local Plan

- Uttlesford Economic Development Strategy
- Uttlesford Corporate Plan 2017-21
- Local Plans for surrounding local authorities
- Stansted Airport Sustainable Development Plan

9.317 The methodology for assessing socio-economic impacts is the same used in the ES accompanying the Generation 1 application as well as a range of other aviation projects and endorsed by the Airports Commission.

9.318 The ES assesses the impacts on the following:

- User benefits
- Wider socio-economic effects
- Employment effects
- Employment study areas
- Airport related employment
- Construction employment

9.319 In terms of user benefits, the ES argues that the increase in access to air services will increase business investment, support business growth and tourism. It predicts that in the DC scenario there would be an increase of 1.2 million business passengers and 6.8 million leisure passengers in comparison with the DM scenario.

9.320 Given the capacity constraints within the London airports system, it is contended by the applicant that this proposal would enable an extra 8 million passengers to access flights whose demand would not otherwise be met. As such, the development case is assessed by the ES as being moderately beneficial.

9.321 The ES predicts that the potential to provide for an additional 1.2 million business passengers per annum would increase the attractiveness of the area for investment. In addition, in terms of business efficiency and productivity, this is predicted to produce an increase in annual UK GVA of £1.2 billion. As around 79% of the passengers will be from the East of England and London the impact at that level is estimated to be £0.95 billion. The wider impacts are predicted to be £5.6 billion at UK level and £4.4 billion at the London and East of England level. Therefore, this is seen as being a major beneficial impact.

9.322 In respect of in-bound tourism, the average spend of a visitor arriving by air is around £700 per visit, and this rises to £860 per business passenger. The predicted increase of 1.1 million leisure passengers into the UK would result in an additional estimated spend of £779 million in 2028. This additional expenditure is estimated to support an additional 13,900 jobs in the tourism industry which would create GVA of £336 million (2016 prices) in 2028. On the basis that these passengers would not be able to visit the UK due to capacity constraints without this planning permission, the proposed development is assessed as being major beneficial.

9.323 In respect of international trade, all UK airports account for 48% of exports and 46% of imports by value, but less than 1% of the total volume of exports and imports which reflects the high value, low weight characteristics of air freight. In 2016, goods with a value of £6.3 billion were exported through Stansted to non-EU destinations, while goods with a value of £6 billion were imported. Overall,

Stansted accounted for 5% of all non-EU trade carried through UK airports in volume terms but almost 7% in value terms.

- 9.324 The ES concludes that the proposals would result in an additional 800 tonnes of cargo passing through the airport, representing an increase of 0.2% on the Do Minimum scenario, thus being a minor beneficial effect.
- 9.325 It should be noted that the 2008 consent permits 20,500 CATMs and this application seeks to limit the number of CATMs to 16,000. Therefore, it is considered that the proposals would be neutral in their impacts in terms of cargo as this growth could happen without the benefit of this planning permission being granted. Indeed, it could be argued that the proposals would result in a negative impact in respect of cargo due to the reduction in the number of CATMs per annum. However, in reality the moving annual total of CATMs has only exceeded 14,000 once in information provided by MAG to UDC under Condition ATM5 of the Generation 1 planning permission.
- 9.326 The employment effects would arise from both the construction and the operational phases of the proposals. The construction period (2021-2) is predicted to give rise to almost 200 direct jobs and 100 indirect jobs over the period. This is predicted to give an estimated £16.2m GVA for direct employment and £7.2 million GVA for indirect employment. These benefits are assessed as being negligible given the size of the construction industry and the short length of the construction period.
- 9.327 The operational phase of the proposal is estimated to give rise to an additional 3,000 direct on-airport jobs and 2,400 indirect and induced jobs in comparison to the DM scenario. This is predicted to give a GVA of £198.5 million for direct employment and £158.8 million for indirect and induced employment, totalling £357.3 million. The benefits are assessed as being moderately beneficial.
- 9.328 Representations contend, by contrast, that the socio-economics chapter is not balanced, and that economic downsides (for example net tourism deficit and impacts on residential property market) are not considered. The applicant has responded that the comparison between the DM and DC scenarios is very small and any consequential effects on the net demand for housing in the study area can only be very minor.
- 9.329 Generalised concerns are also raised with regards to the potential impacts of Brexit and that the ES does not take this into account. However, and specifically, the economic forecasts that underpin the ICF traffic forecasts were provided by Oxford Economics in July 2016, following the Brexit Referendum result. The economic forecasts were predicated on Oxford Economics' central case. This is where the UK leaves the EU on unfavourable terms, without negotiating a significant trade deal and the trade relationship between the UK and the EU therefore reverts to WTO rules.
- 9.330 Essex County Council's Economic Growth, Regeneration and Skills Department has assessed the application. They consider that the increase in capacity and the development of new airfield infrastructure is important to the growth of the Essex economy. Further Foreign Direct Investment opportunities will arise from new access to international markets, such as those airlines recently signed up to operate from the airport.

- 9.331 The proposals would lead to the creation of further direct and indirect employment opportunities associated with the airport, providing additional jobs for the residents of Essex. The proposals would also increase supply chain opportunities for businesses related to the operation of the airport. ECC welcomes the opportunities to work with the applicant in order to identify initiatives and programmes of support to promote both business and employment growth in Essex.
- 9.332 In terms of skills, the applicant's commitment to STEM (science, technology, engineering and maths) engagements and its collaboration with Harlow College with the new Stansted Airport College opening in September is welcomed. In addition, their approach to apprenticeships is also recognised, although greater understanding of the numbers of Apprenticeships and Associated apprenticeship Standards was sought. This information has not been clarified, but there is a commitment from the applicant to continue the STEM opportunities, such as working with Harlow College/Stansted Airport College. The applicant continues to operate the Aerozone facility which enables school children to get an appreciation of the range of job opportunities available at an airport.
- 9.333 In respect of tourism, ECC recognises the benefits the proposals would bring to the local and regional economy of Essex, including tourism and leisure. Measures to promote Essex as a tourism destination are desired and in this regard ECC has requested a yearly sum of £6000. However, they have failed to demonstrate how this request meets the tests set on in paragraph 56 of the NPPF. Notwithstanding this, the applicant has expressed a willingness to explore measures to promote Essex but does not agree that this needs to be as a result of this application.
- 9.334 The findings of this chapter of the ES are therefore reasonably considered to be sound and would deliver in respect of the economic growth aspirations of national and local policy.

H CARBON EMISSIONS

- 9.335 Chapter 12 of the ES assesses the carbon emissions impacts of the proposal.
- 9.336 The NPPF (2018) sets out the principle of moving to a low carbon economy as one of the overarching objectives of the environmental strand of sustainability in paragraph 8(c), and in paragraphs 153-154 although this is predominantly aimed at energy sources and use within development.
- 9.337 The Government's objective for aviation, set out in paragraph 2.4 of the APF (2013) is "to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions."
- 9.338 The Government's response to its call for evidence on a new Aviation Strategy (April 2018) sets out that the government, at a global level, will consider their overarching framework for tackling UK aviation's carbon emissions to 2050 and how this can ensure that aviation contributes its fair share to action on climate change.
- 9.339 This states that UK aviation accounted for around 7% of the UK's total greenhouse gas emissions in 2016, an increase from around 5% in 2005 and that this is likely to continue to increase in proportion to other sectors, such as energy and manufacturing which are easier to decarbonise.

9.340 Paragraphs 6.12 and 6.13 state:

“In the UK, the Climate Change Act 2008 sets a legally binding target for the UK to reduce its greenhouse gas emissions by at least 80% by 2050, compared to 1990 levels. This target includes UK domestic aviation (flights which take off and land in the UK) but does not include emissions from international aviation. The government will use the Aviation Strategy to re-examine how the aviation sector can best contribute its fair share to emissions reductions at both the UK and global level.

Globally, international aviation’s carbon emissions currently account for less than 2% of total emissions, but these could increase by two to four times between now and 2050. Internationally, the UK is committed to taking action to ensure that aviation plays its part in contributing to the ‘well below two degrees goal’ established by the Paris Agreement in 2015, and to the International Civil Aviation Organisation’s (ICAO’s) goal of carbon neutral growth from 2020. Significant progress has been made towards this objective. Most notably, the UK played a crucial role in reaching agreement at the ICAO Assembly in October 2016 on the first ever sector based global climate change deal for aviation, an offsetting scheme involving the purchasing of emissions reduction credits from other sectors, known as the Carbon Offsetting and Reduction Scheme for International Aviation, or CORSIA. The Aviation Strategy will consider what further action the UK wants to encourage across ICAO’s full range of policy measures.”

9.341 The carbon emissions section then discusses the EU Emissions Trading Scheme (ETS), the future of which is uncertain as far as the UK is concerned. The government says that it will be seeking an approach that is at least as ambitious as the existing scheme and provides a smooth transition for the relevant sectors. Since 2012, the ETS has had its scope reduced to only cover flights within the European Economic Area, which at Stansted is currently about 89-90% of the total number of flights. The government’s position is that international aviation emissions are best tackled at an international level. Stronger action at the UK level without an equivalent level of action internationally is likely to impose greater costs on airlines flying to and from the UK, thereby putting UK airlines at a greater competitive disadvantage compared to foreign airlines and potentially increasing fares.

9.342 The government says that it will consider all cost effective measures to ensure that the sector continues to contribute to the UK’s emissions reductions obligations. This could include operational measures such as alternatives to engine power when taxiing and the higher uptake of renewable fuels in conjunction with carbon pricing.

9.343 The APF (2013) is now showing its age in relation to topics such as carbon emissions. However, this document also sets out the desire that this topic should be dealt with at an international level.

9.344 BTH (June 2018) the Government states that it will be using the Aviation Strategy to progress wider policy on carbon emissions. In the same document, the Government does recognise that airports making best use of their existing runways could lead to increased air traffic and emissions. Using the Committee on Climate Change’s planning assumption of limiting aviation emissions to 37.5Mt of CO₂ in 2050 (the carbon capped scenario), Government modelling

indicates that emissions in 2050 would total 40.8Mt taking into account “best use” and Heathrow Runway 3. The Government accepts that there is uncertainty over future climate change policy and international arrangements to reduce CO₂ and other greenhouse gases, but remains confident that measures such as single engine taxiing and higher uptake of renewable fuels will lead to the 37.5Mt cap being met in 2050. Under a carbon traded scenario requiring compensatory reductions elsewhere in the global economy, the Government sees nothing to prevent the UK meeting its obligations.

9.345 The ANPS (2018) also sets out that the government has undertaken significant work in respect of assessing carbon emissions in considering the future growth of aviation. Paragraph 5.70 states:

“The Government’s key objective on aviation emissions, as outlined in the Aviation Policy Framework, is to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. This must be achieved while minimising the risk of putting UK businesses at a competitive international disadvantage. The development of the Heathrow Northwest Runway scheme being considered under the Airports NPS does not override this objective.”

9.346 The approach taken in Chapter 12 of the ES is aligned with the carbon emissions assessment principles as undertaken by the Airport Commission Appraisal Framework (ACAF) when it examined the options for meeting the UK’s international connectivity needs.

9.347 The ACAF identified five areas where carbon emissions may change as a result of an airport scheme. These are set out in Table 12.1 of the ES.

ACAF categories	Relevance to the proposed scheme	Scheme phase
Increased airport capacity leading to a net change in air travel	Aircraft in the air and on the ground (LTO* and CCD**)	Operation
Departure and arrival route changes through altered flight operations	Not impacted by the proposed scheme	Operation
Construction of new facilities and surface access infrastructure	Embodied carbon from construction materials	Construction
	Energy consumption during construction	Construction
Airside ground movements and airport operations	Power and heat generation on-site	Operation
	Consumption of energy generated off-site	Operation
Changes in non-aviation transport patterns brought about by a scheme	Transport associated with staff commuting and passenger travel	Operation

*LTO: Aircraft on the ground and in the landing and take-off cycle (below 3000 ft)

**CCD: aircraft in the climb, cruise and descent cycle (above 3000 ft)

9.348 Table 12.10 in the ES sets out the baseline and predicted carbon emissions for the DM scenarios for 2023 and 2028.

	Unit	Base 2016	DM 2023	DM 2028
Passenger number	mppa	24.3	35	35
ATM	no	180,619	246,568	248,820
Carbon				
Flights	MtCO ₂	1560	2304	2274
Landside activities	MtCO ₂ e	0.003	0.004	0.004
Airside activities	MtCO ₂ e	0.007	0.010	0.010
Surface access transport	MtCO ₂ e	0.170	0.211	0.189
Total	MtCO₂e	1.740	2.529	2.478
Per passenger	kgCO₂e/ passenger	107	113	110

9.349 In respect of emissions three scenarios were used, pessimistic, central and best practice.

Pessimistic: The pessimistic scenario assumed a small amount of improvements in aircraft and engine efficiency to represent a conservative projection of future aviation improvements. The assumed improvement rate in this scenario is consistent with the bottom-up approach (where carbon emissions have been calculated from operational data provided by STAL) used for 2016-28.

Best practice: The best practice scenario assumed improvements in all three improvements areas (aircraft and engine efficiency, air traffic management and operations, sustainable aviation fuels) and reflects the assumptions set out by Sustainable Aviation in their Sustainable Aviation Carbon Road-Map report

Central: The central scenario represents a centred projection of improvement between the pessimistic and best practice scenario.

9.350 Using the pessimistic approach, Table 12.11 sets out the carbon emissions for the DM and DC scenarios for 2023 and 2028. The improved carbon intensity (reduced emissions per passenger) in the DC scenario compared to the DM one is principally due to increased passenger throughput using the same terminal infrastructure.

	Unit	2016-2028				
		Pessimistic				
		Base 2016	DM 2023	DC 2023	DM 2028	DC 2028
Passenger number	mppa	24.3	35	36.4	35	43
ATM	no	180,619	246,568	252,607	248,820	273,966
Carbon						
Flights	MtCO ₂	1560	2304	2.304	2274	2.504
Landside	MtCO ₂ e	0.003	0.004	0.004	0.004	0.006
Airside	MtCO ₂ e	0.007	0.010	0.010	0.010	0.011
Transport	MtCO ₂ e	0.170	0.211	0.211	0.189	0.232
Total	MtCO₂e	1.740	2.529	2.529	2.478	2.753
Emissions per passenger	kgCO₂e/ passenger	107	113	110	110	106

9.351 In 2028 the difference between the DM and DC scenario (rounded up) would be 0.3 MtCO₂e. When expressed as a value per passenger, the development case would see an improvement in emissions by 4 kgCO₂e.

- 9.352 The total emissions from flights for 2050 under the three scenarios are 2.031 MtCO₂ (pessimistic), 1.768 MtCO₂ (central) and 1.484 MtCO₂ (best practice). These reductions from 2028 are predicated upon technology improvements, operational improvements and use of sustainable aviation fuels.
- 9.353 The construction phase will contribute an estimated 0.22 MtCO_{2e} including emissions from the production of concrete and fuel use by construction plant on site. This represents 0.9% of Stansted's 2022 total annual emissions in the year during which construction is planned to be completed. This would fall within the UK's third carbon budget (2018-2022) of 2,544 MtCO_{2e} proposed by the CCC. This would account for approximately 0.001% of the total allocated budget, and for approximately 0.09% of all UK construction in 2022.
- 9.354 Flight carbon accounts for 89% of carbon emissions at Stansted Airport in 2016 and would account for 91% in the DC scenario. The majority can be attributed to the emissions taking place in the CCD cycle of aircraft departing from Stansted Airport.
- 9.355 By 2028, between the DM and DC scenarios there would be a 23% increase in mppa, a 10% increase in ATMs and a 10% increase in flight carbon emissions. As such, the carbon intensity of the DC scenario would improve by around 4% (flights only) in 2028 from 105kgCO₂/passenger to 100kgCO₂/passenger compared with the DM scenario. In the DC scenario, after 2028, passenger numbers would remain around 43mppa and the carbon intensity per passenger would fall to between 56kgCO₂/passenger (best practice) and 77kgCO₂/passenger (pessimistic).
- 9.356 By 2050, the annual flight emissions from Stansted are projected to reduce to between 1.5MtCO₂ (best practice scenario) and 2.0MtCO₂ (pessimistic scenario). This represents between 4% and 5.3% of the 37.5MtCO₂ target for UK aviation by 2050.
- 9.357 Transport carbon emissions relating to employee and passenger travel to Stansted are the second largest source of emissions after flights, accounting for 6% of the airport's total annual emissions in 2016 and 5% of the total annual emissions in 2023 and 2028. It is predicted that the DC scenario would increase for the DC scenario between 2023 and 2028 as increases in passenger numbers would outweigh the vehicle efficiency improvements.
- 9.358 Carbon emissions relating to gas consumption accounted for 0.2% of the airport's annual carbon emissions in 2016. Electricity consumption is reported as zero carbon emissions reflecting the airport's 100% 'green' tariff supply contract.
- 9.359 In respect of landside operations, emissions are predicted to rise from around 0.003MtCO_{2e} in 2016 to 0.0045 in the DM scenario and to 0.0055 in the DC scenario. Airside operations would see an increase from 0.7MtCO_{2e} in 2016 to just under 0.010 in 2028 in the DM scenario and around 0.011MtCO_{2e} in the DC scenario.
- 9.360 The ES concludes, at paragraphs 12.93 and 12.94, that Stansted Airport's share of UK aviation carbon emissions would rise from 4% in 2016 to between 4% and 5.3% of the UK's aviation emissions target in 2050, that this would not be a substantial change, and with annual aviation carbon emissions predicted to decrease between 2028 and 2050. It is considered that the DC scenario is

unlikely to materially impact the UK's ability to meet its 2050 national aviation target of 37.5MtCO₂e.

- 9.361 Concerns have been raised with regards to carbon emissions in the representations. In respect of CORSIA, the applicant confirmed that their projections are not presented with CORSIA implemented.
- 9.362 Concerns have been raised also in respect of the improvement factors used in the scenarios produced by Sustainable Aviation. However, comparisons between the three approaches and other studies carried out in respect of Heathrow NW runway and by the CCC (UK aviation target) demonstrate that the approaches are comparable. The three scenarios predict improvements in the range of 0.9% and 1.94%. This compares with Heathrow where improvements were predicted to be between 0.9% to 1.95%, and CCC where they were predicted to be between 0.9% and 1.8%. As such, this authority has no reason to dispute the predictions shown in the ES. Notwithstanding this, the topic is an international and national level issue as advised in the Aviation Strategy. Indeed, paragraph 6.24 of the 2018 Aviation Strategy call for evidence response states:

“The government’s Aviation Strategy presents an opportunity to take stock of the considerable progress made in recent years by both industry and government and to look ahead at what further action is required between now and 2050. The government will look again at what domestic policies are available to complement its international approach and will consider areas of greater scientific uncertainty, such as the aviation’s contribution to non-carbon dioxide climate change effects and how policy might make provision for their effects.”

- 9.363 It is reasonable to conclude that the application proposals will not materially impact on the ability of the government to meet its national carbon reduction target.

I Climate Change

- 9.364 Chapter 13 sets out the potential impacts with regards to climate change. This is a new requirement as set out in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 which requires an assessment of the risk of major accidents and/or disasters relevant to the development concerned, including those caused by climate change, in accordance with scientific knowledge. This chapter needs to be read in conjunction with Appendices 13.1 to 13.3 in ES Volume 2.
- 9.365 Paragraph 8(c) of the NPPF (2018) sets out climate change as an objective of the environmental objective of sustainable development. Section 14 of the NPPF (2018) sets out the government’s planning policy in respect of climate change. In paragraph 150 it states that developments should be planned for in ways that avoid increased vulnerability to a range of impacts arising from climate change and can help to reduce greenhouse gas emissions, such as through its location, orientation and design. The latter part of the policy is not relevant to the proposals as no buildings are proposed as part of the development.
- 9.366 The APF (2013), Section 2, Climate Change Impacts, provides guidance on climate change and, as with carbon emissions, paragraph 2.4 sets out the government’s objective similarly, together with a series of measures at different levels.

- 9.367 The Aviation Policy Framework states that *“the Government’s objective is to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions.”* This will require action at a global level. European and national level actions are also set out in the document.
- 9.368 Paragraph 2.55 of the APF refers to the Climate Change Act (2008) committing the UK to build resilience to the expected impacts of climate change. A Climate Change Risk Assessment is required to be produced every five years. In 2012 the CAA, NATS and ten airports published climate change adaptation reports under the Climate Change Act Reporting Power and this will be repeated every five years.
- 9.369 The reports identify climate variables that pose risks to the industry, including increases in extreme weather affecting operations; increases in temperature leading to runway damage; increased rainfall posing flood risk and changes in wind patterns affecting air traffic movements.
- 9.370 The government’s position with regards to climate change is set out in the 2018 Aviation Strategy call for evidence response in paragraphs 6.12 and 6.13, quoted in paragraph 9.340 above.
- 9.371 The ANPS sets out the government policy in respect of climate change. It states that climate change mitigation is essential to minimise the most dangerous impacts of climate change, as previous global greenhouse gas emissions will already mean some degree of continued climate change for at least the next 30 years. Climate change is likely to mean that the UK will experience on average hotter, drier summers and warmer, wetter winters. There is potentially an increased risk of flooding, drought, heatwaves, intense rainfall events and other extreme events such as storms and wildfires, as well as rising sea levels.
- 9.372 The ANPS states that new development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. These must be considered when planning design, build and operation. Any ES should use the latest UK Climate Projections and should cover the estimated lifetime of the new infrastructure. Any adaptation measures should be based on the latest set of UK Climate Projections, the most recent UK Climate Change Risk Assessment, consultation with statutory consultation bodies, and any other appropriate climate projection data.
- 9.373 The ES chapter reviews the meteorological data for the area, both local and regional, for the period 1981-2010. A review of weather related incidents has also been undertaken, including a high level assessment of events for the period 2014-17. The assessment uses the Met Office’s UK Climate Projections 2009 (UKCP09) to assess the potential weather patterns for the 2020’s and 2050’s.
- 9.374 The data indicates that the frequency of hot days, dry spells and heavy rainfall will increase in the future compared to the baseline, whilst the number of cold days will decrease. The change between baseline and 2020’s is not vastly different, but there is a significant change when looking forward to the 2050’s. The use of de-icing is predicted to decrease, which would be an environmental benefit.
- 9.375 Table 13.8 sets out the operational stage in-combination climate change effects by environmental topic. No in-combination effects were identified for the noise topics, nor public health and wellbeing topic.

Environmental topic	In-combination climate change effect	Existing or embedded mitigation
Surface access and transport	Adverse effect from increased stress on existing road and rail network in combination with increase in frequency of extreme weather events negatively impacting surface access and transport (eg damage to cabling and rails, inundation from flooding)	Existing mitigation is outline in the STAL Climate Change Adaptation Progress Report (CCAPR) and includes emergency contingency plans and coordination with road and rail operators (see risk ID CCA27)
Air quality	Adverse effects from increased prevalence of hotter and drier conditions in combination with increase in vehicle and aircraft emissions may result in changes in concentrations of nitrogen oxides (NO _x), fine particulate matter (PM ₁₀ and PM _{2.5}) and ozone (O ₃). Unclear whether the concentrations will increase or decrease.	Airlines have new, cleaner fleet on order. In cases where air quality targets are not met, an action plan to restore compliance is put in place by local authorities, which may include actions with which STAL would be expected to comply. Whilst ozone is likely to increase there are limited mitigation measures available to STAL.
Socio-economic effects	Adverse effect from increase in frequency of extreme weather events in combination with direct and indirect job creation during operation leading to increased stress on local infrastructure.	Existing mitigation is outlined in the STAL CCAPR and includes emergency contingency plans and coordination with road and rail operators (see risk ID CCA27).

9.376 Mitigation measures identified (other than the CCAPR) are operational matters which would lie outside of the planning system. These include monitoring of resilience plans, weather trends, local data and risks to infrastructure. Mitigation in respect of high temperatures, strong winds and high precipitation impacts and risks are:

- To review the demand placed on energy supplies to heat and cool buildings with mechanical and ventilation systems (HVAC)
- To review temperature thresholds for cooling systems within the main terminal building, satellite piers, and ancillary buildings, to ensure effective and efficient provision of cooling given projections for increased passenger numbers and higher temperatures in the future;
- To review allowances for maximum aircraft operating temperatures in collaboration with the airline operators to determine whether they are within tolerance of hot day (>25°C) occurrences which are likely to increase due to climate change
- To check weather data and potential impacts on operations

- 9.377 On the basis of the information submitted in the ES, it is considered that the applicant has reasonably met the requirements of the EIA Regulations and no significant effects are identified.
- 9.378 It is acknowledged that representations have raised issues in respect of climate change and also carbon emissions. This was also the case in respect of the Generation 1 application where the Inspector stated that the Inquiry into STAL's appeal against the Council's refusal to grant planning permission was not the forum for challenging the merits of current government policy or for debate on the direction of future policy. He stated that they were matters for Parliament and outside the scope of the appeal. Whilst these two issues remain to be dealt with at a national level by the government, the Inspector's comments remain valid in respect of the consideration of this application.

J Public Health and Wellbeing

- 9.379 Chapter 14 of the ES reviews public health and wellbeing and should be read in conjunction with the Health Impact Assessment contained in Appendix 14.1 (ES Volume 2). This is a new requirement set out in paragraph 4(2)(a) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. This stipulates that the ES must identify, describe and assess in an appropriate manner in light of each individual case, the direct and indirect significant effects of the proposed development on population and public health.
- 9.380 The NPPF (2018) sets out the government's principles for sustainable development. In terms of the social strand there is a requirement that developments support communities' health, social and cultural well-being.
- 9.381 Paragraph 180 of the NPPF (2018) states:
- “Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*
- a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
 - b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason;*
 - and*
 - c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”*
- 9.382 The Appraisal of Sustainability which accompanies the ANPS demonstrates that airport expansion will attract additional air traffic, which impacts upon quality of life and wellbeing, in particular through noise, air quality, housing, community facilities, and access to nature and cultural heritage. Whilst this application does not seek to increase ATMs it does seek to alter the composition of the ATMs, most notably a reduction in cargo flights and general aviation movements.
- 9.383 The construction and use of airports infrastructure has the potential to affect people's health, wellbeing and quality of life. Infrastructure can have direct impacts on health because of traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous

waste and pests. It can also impact on sites of local or regional interest for biodiversity which also play a role in the wellbeing of communities.

- 9.384 The APF states the Government’s intention that decisions in respect of aviation should be in accordance with sustainable development principles. This means making the necessary decisions now to realise its vision of stimulating economic growth and tackling the deficit, maximising wellbeing and protecting our environment, without negatively impacting on the ability of future generations to do the same.
- 9.385 ‘Health’ is commonly defined as *“a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”* (WHO).
- 9.386 The basis of the assessment in this application is to apply a broad socio-economic model of health that encompasses conventional health impacts such as disease, accidents and risk, along with wider health determinants vital to achieving good health and wellbeing such as employment and local amenity. It considers both physical and mental health, and also addresses equality and social impacts where possible. It considers three broad domains of public health practice:
- Health protection (ie environmental pollution and standards set to protect health)
 - Health promotion (ie healthy lifestyles, socio-economic status and equalities); and
 - Health care (ie provision, effectiveness and equality of access to healthcare services)
- 9.387 The assessment follows a source-pathway-receptor approach to identify and assess health impacts that are plausible and directly attributable to the proposed development. Table 14.1 sets out the potential health pathways summary.

Health pathway	Potential for impact	Impact type*
Construction		
Exposure to air pollution including dust, noise, ground or water contamination	The proposed physical infrastructure to be constructed is minimal, with no potential for significant environmental impacts identified in ES Chapter 5 or in the relevant ES topic chapters. Construction-stage health pathways are therefore not considered to give rise to any likely significant health or wellbeing effects and are scoped out of the further assessment in this chapter.	Temporary. Direct, indirect or secondary
Construction traffic (safety, amenity, severance)		
Construction workforce (housing/services demand, crime, infectious diseases)		
Construction employment, supply chain spending		

Health pathway	Potential for impact	Impact type*
Operation		
Airport/aircraft air pollutant emissions	Change in air quality at residential and other sensitive locations	Direct
	Impact on habitats and resulting change in amenity value of green/recreational space	Direct
Airport/aircraft noise	Change in noise environment at residential and other sensitive locations	Direct
	Change in amenity value of green/recreational space	Direct
Surface access road traffic generation	Contribution to air pollution and noise exposure	Direct
	Change in amenity value of green/recreational space	Direct
	Change in road safety	Direct
	Change in capacity or demand for public transport	Direct
	Community severance	Direct
	Impacts on non-motorised users (NMUs)	Direct
	Change in congestion, access to services	Direct
Governance (airport and regulator)	Public participation and empowerment concerning operational impacts	Direct
Increase in airport's economic activity with more passengers and flights	Direct employment generation	Direct
	Education/training opportunities	Direct
	Supply chain spending – indirect employment/wealth generation	Indirect
	Additional employees' impact on services, housing capacity, community cohesion	Indirect
Increase in flight capacity and/or connections	Increased opportunity for leisure travel and social connections	Direct
	Increased opportunity for business travel with economic benefit, with resulting employment/wealth benefit	Indirect, secondary
Flood risk	Risk to life or property; displacement from housing; impaired access to services	Direct
Water contamination	Drinking water contamination	Direct

* Impact type is 'permanent' (ie persisting for the foreseeable future) unless otherwise specified

9.388 Socio-economics:

As discussed earlier in this report, the proposals would give rise to an additional 3000 direct employment opportunities and 2400 indirect or induced opportunities. Direct and indirect/induced employment has the potential to offer important long-term health and wellbeing benefits affecting up to 5,400 people.

- 9.389 Indirect quality of life, wellbeing and possibly health benefits would also be associated with the predicted £357m of GVA per annum by 2028. These would arise through increase personal wealth and increased public revenue enabling spending on public services that affect health.
- 9.390 It is predicted that around 2.3 million additional leisure trips would be enabled by the proposals by 2028. These trips have social and family benefits, or offer cultural, recreational or educational experiences. This can improve general and mental health and thus quality of life.
- 9.391 The regional level benefits are assessed as having a major beneficial effect, supporting actions to address the Essex health objectives for 'people not in education, employment or training', 'loneliness and social isolation' and the Hertfordshire objective 'economic wellbeing'.
- 9.392 *Surface access:*
- 9.393 Additional demands placed on surface access should not result in adverse impacts on road safety, active travel or community severance. There should be negligible impacts in terms of road safety in respect of Junction 8 of the M11 and its link roads. Negligible impacts on driver delay on local minor and trunk roads and a minor impact on Junction 8 were identified.
- 9.394 In terms of impacts on health and wellbeing, the proposals should not result in adverse impacts in terms of road traffic growth. There should be no significant adverse impact on health and wellbeing due to increased congestion and reduced access to services is therefore considered unlikely.
- 9.395 The surface access chapter indicates that there would be a minor adverse impact on some rail, bus and coach travel services from the proposed development due to the increased usage. However, it is also recognised that local bus and coach service operators can respond quickly to new demand and that the proposed development may provide a catalyst for public transport improvements. Therefore, any adverse wellbeing impact is likely to be very minor, if present.
- 9.396 Overall, the magnitude of impact on health and wellbeing is considered to be negligible and would not result in a significant impact in terms of demands on surface access.
- 9.397 *Air Quality:*
- The predicted negligible changes in air quality should have no measurable extra adverse health outcomes per annum, with an increase of fewer than one emergency hospital admission or an effect on mortality equivalent to fewer than one additional death at typical ages predicted.
- 9.398 Vulnerable individuals, such as those in healthcare facilities or with existing respiratory diseases, will in some cases have greater susceptibility to health impacts from air pollutant changes. The ES argues that this cannot be quantified from statistical risks applicable to the general population, but given the negligible magnitude of air pollutant concentration changes predicted additional risks are unlikely to be significant.

9.399 *Noise:*

The predicted changes in air noise are considered to not result in any measured adverse health outcomes for ischemic heart disease (IHD), stroke or dementia, with an increase of fewer than one additional annual incident case predicted.

9.400 Approximately four to six additional cases of hypertension prevalent within the population are predicted, and additional cases of depression or anxiety associated with high annoyance are also possible. The magnitude of change predicted is very small, being less than 1% of the baseline rate.

9.401 An increase of around 339 people who consider themselves highly annoyed by aircraft noise is predicted, which is around a 28% increase compared to the do minimum scenario. However, a small reduction in the number of people with high sleep disturbance is predicted due to the very limited change in the L_{night} contours with the proposed development. The increase in the population predicted to be affected by noise should fall within the area designated for the revised SIGS mitigation package.

9.402 There would be a 13% increase in the number of daytime noise events above the assessment threshold at the most-affected school, Howe Green; the most-affected church, St Giles in Great Hallingbury; and the most-affected healthcare facility, Falcon House residential care home in Little Hallingbury. There may be minor potential for increased disruption to learning, to the care environment at Falcon House, or an impact on the quality of life for worshippers at the affected churches.

9.403 Overall, the magnitude of impact on health is considered to be minor adverse. The magnitude of impact on wellbeing and quality of life, taking into account the predicted changes in annoyance and sleep disturbance, is considered to be a minor adverse effect.

9.404 *Amenity, Green Space and Physical Activity:*

Significant reductions to the amenity of green space resulting in significant effects on quality of life and wellbeing are unlikely as a result in increases in noise due to the negligible increases predicted.

9.405 Some areas of the countryside, including parts of Hatfield Forest, will be affected by a greater level of activity exceeding 25 events a day with noise events greater than 65dB. The magnitude of impact would result in a minor adverse effect on quality of life and wellbeing due to reduction in the amenity of green space. The impacts would adversely affect actions to address the Hertfordshire objective 'Open space provision' and NPPF objective 'Open space provision and rights of way'.

9.406 *Flood Risk and Water Contamination:*

No impact on health and wellbeing due to water contamination or flooding is predicted.

9.407 *Governance:*

The application is accompanied by a Statement of Community Involvement detailing the consultation and public engagement undertaken by the applicant.

- 9.408 The applicant engages actively with local stakeholders through the quarterly Stansted Airport Consultative Committee, Parish and District Council liaison meetings, annual community impact surveys, outreach events, complaints monitoring and a noise track keeping system, and reporting of all air quality and noise impacts. Any adverse wellbeing and quality of life impacts due to poor governance are minimised and a negligible impact is predicted overall.
- 9.409 Mitigation measures have been briefly discussed in the relative chapters. These include:
- Travel Plan – joint working with public transport providers
 - A new SIGS for dwellings and other noise-sensitive properties
 - A Community Fund to support projects for cultural and community wellbeing (see attached map for proposed funding areas)
 - Stansted Airport College – complements the Airport Employment and Skills Academy
- 9.410 Further mitigation is not required as a result of the findings of the ES, but the applicant is seeking to develop a closer working relationship with the Directors of public health/local public health teams, potentially via participation in the Stansted Airport Consultative Committee. This approach is supported by ECC.
- 9.411 Discussions have been ongoing with various parties as to how the Community Fund could be refreshed and operated to ensure effective mitigation in terms of public health and wellbeing. This mitigation can be secured by way of s106 Legal Obligation with appropriate terms of reference to ensure community involvement with the relevant stakeholders. Previously, the fund has operated successfully under clauses of the 2003 s106 agreement and the 2008 unilateral undertaking. Although both these time-limited obligations have now expired, the applicant has continued to voluntarily top up the fund each year in addition to the accumulated noise funds.

J Water Resources and Flood Risk

- 9.412 Chapter 15 of the ES discusses the potential impacts on water resources and flood risk. This should be read in conjunction with the Flood Risk Assessment (FRA) in Appendix 15 (Volume 2) and the response to ECC LLFA consultation response set out in Annex 5: Water Technical Note in the Consultation Response and Clarifications document.
- 9.413 Adopted Uttlesford Local Plan Policy GEN3 seeks to direct new development to areas of low flood risk and to ensure that new development does not increase flood risk to other areas. This policy is only partly consistent with the NPPF with approaches to flooding issues having developed considerably in the time since the policy was adopted. Therefore, the policy has limited weight with full weight being given to the NPPF and associated guidance.
- 9.414 Policy ENV12 seeks to prevent development which would cause contamination of groundwater, particularly in protection zones, or result in contamination of surface water. This policy is consistent with the NPPF and carries full weight.
- 9.415 The NPPF (2018) sets out the government's approach with regards to flood risk and how decisions should be made in respect of development proposals. In this instance, the physical infrastructure works are located within an area designated

as Flood Zone 1 which has a low probability of flooding (less than 1 in 1,000 annual probability of river flooding in any year).

- 9.416 The ANPS (2018) refers to the NPPF for the approach to flood risk. It identifies that there is the potential for airport expansion to result in increased risk from climate change effects, particularly to increased surface water runoff rate and pressure on potable water supply. There may also be effects on groundwater.
- 9.417 Sensitive receptors have been identified as:
- Stort River catchment, Pincey Brook and other associated ordinary watercourses that are tributaries to the main rivers
 - Existing groundwater within the study area (generally the airport boundary)
 - Human health and wellbeing, in respect of:
 - Flood risk from all sources, including fluvial, pluvial, groundwater, sewer or other artificial sources
 - Water quality, notably in respect of the risk of contamination from the use of glycol as a de-icer on the airport, as well as traces of oils, hydrocarbons and aircraft fuels
 - Water supply and capacity, notably the potential increased demand on potable water supply
 - Existing drainage asserts (water utility infrastructure) for the airport which traverse the study area
- 9.418 The new airfield infrastructure being proposed is located within the largest drainage catchment at Stansted which feeds into Balancing Pond C, which consists of three ponds located between the A120 and the B1256.
- 9.419 The conclusion of the FRA is that the risk of flooding is low or negligible from all sources, but possible in respect of culverts. The existing infrastructure can be adapted to ensure surface water drainage flows are in line with the required greenfield run-off rates. In terms of the construction phase and operational phases the impacts are considered to be negligible.
- 9.420 The LLFA has not raised an objection to the proposals on the basis of the FRA, the Drainage Strategy and run-off rates as set out in the original submissions and subsequent update.
- 9.421 In terms of potential contamination, the construction phase could potentially alter ground conditions resulting in a deterioration of surface water quality or a reduction in flows in the water courses. The sensitivity of underlying groundwater is considered high due to the regional importance of groundwater resources but the risk of vertical migration of pollutants from the construction works is low. Therefore, there could be a short term negligible to minor adverse effect, before mitigation.
- 9.422 Mitigation for the construction phase is proposed by way of a Construction Environmental Management Plan, which is standard mitigation for this type of impact. This would reduce the potential impacts to negligible.
- 9.423 In terms of operational impacts, potential contaminants are glycol (de-icer) and small traces of oil, hydrocarbons and aircraft fuel. Contaminated water is currently managed within Balancing Pond C which has three compartments termed 'clean', 'dirty' and 'overflow'. Subsequently, discharged water is pumped

through the Thames Water (TWUL) sewerage network for treatment at Rye Mead Waste Water Treatment Works (WWTW) at the rates agreed with TWUL.

- 9.424 It is proposed that this arrangement would continue as a result of the proposed development. In respect of this the LLFA raised an objection on the basis that the proposed pollution risk had not been fully addressed. In addition, TWUL raised concerns with regards to proposed discharge rates.
- 9.425 Additional information has been supplied by the applicant in respect of pollution controls and these have been assessed by the LLFA who now raises no objections. In respect of flow rates, the applicant, outside of the planning system, is addressing this issue with additional information passed to the Asset Planners at Thames Water for review. In terms of impact, the contaminated flow is anticipated to increase by around 1.9% as a result of the additional 7.02ha increase in hardstanding over the existing 36.8ha.
- 9.426 The ES concludes that there is likely to be a direct, long term negligible effect due to the additional surface water discharges from the site, prior to the implementation of additional mitigation.
- 9.427 In terms of impacts on potable water supplies, the demand will fluctuate throughout the construction phase. Nevertheless, given the context of daily water consumption throughout the airport, this is envisaged as being minimal and representing a negligible effect on the local water supply network.
- 9.428 Water efficiency measures across the airport have seen water consumption reduce by around 50,000m³ since 2008. The average consumption per passenger has reduced from 30 litres to 28 litres. In respect of the operational phase, a worst case scenario has been used which envisages no further improvements to water efficiency across the airport. On this basis it is predicted that the airport would consume 1,172.5 million litres of water in the 2028 DM case and 1.474 million litres in the 2028 DC scenario.
- 9.429 The ES specifies that Anglian Water does not raise concerns with regards to the volume of water consumption, but rather the rate of supply. It has been proposed that the rate of supply is reduced but the period over which it is supplied is extended. This would reduce the pressure on the existing AW mains, but should allow the airport's private water supply network to continue to operate in a similar manner to existing. This would be a private arrangement between the applicant and AW outside of the planning system. This is viewed as having a minor adverse effect, which would reduce to negligible with the implementation of additional water efficiency measures which could reduce consumption by around 20%. Anglian Water has not responded to the consultation and therefore case law states that assumptions must be made that the statutory consultee has no issues to raise.
- 9.430 Demands on foul water infrastructure in respect of the additional infrastructure are not required to be considered as part of the planning process as these now fall outside of the planning system. However, in the winter period when glycol is being used then the development is likely to increase the amount of contaminated water which would need to be treated at Rye Mead WWTW. Thames Water has raised concerns that the potential increase in flows could result in upgrades to the WWTW that are either not technically feasible or not cost effective.

- 9.431 The applicant's response on this matter is that in line with the latest connection charges rules introduced on 1 April 2018 under the Water Industry Act 1991 (as amended 2014) any offsite reinforcement works to sewers or waste water treatment works will now be captured by Thames Water through adjustments to the infrastructure charges, not through any planning agreements or conditions.
- 9.432 Thames Water has subsequently responded that the new connection charge rules are not applicable to Wastewater Treatment. However, it has confirmed that a study is currently being undertaken to investigate the potential options to accommodate increased wastewater flows from predicted growth, both in respect of this application and additional housing associated with Uttlesford and East Herts new Local Plans. The results of the study are not expected until December 2018, but a technical option is believed to be feasible.
- 9.433 Contaminated flows are processed by Water and Sewerage Undertakers as part of Trade flows (ie contaminated surface water). Sewer network capacity and treatment capacity is a commercial agreement whereby the applicant will be required to fund any upgrades needed to accommodate increase discharge rates (if capacity does not currently exist). This would be outside of the planning system.
- 9.434 The EA has raised issues relating to the Uttlesford District Council Water Cycle Study update. They state that the assumptions in the ES will need to be reviewed following the publication of the update. This would certainly be the case if the revised WCS had been published. However, this is not envisaged to be completed until February 2019, with an interim note at the end of October 2018. The WCS interim note will include a high level sensitivity test for 43mppa at Stansted Airport.
- 9.435 The EA understands that the foul water from Stansted Airport is treated at Bishops Stortford Waste Water Treatment Works (WWTWs). The consented discharge of final effluent from Bishops Stortford WWTWs discharges into the Water Framework Directive (WFD) designated water body of Great Hallingbury Brook. The EA advises that this water body currently has a Poor classification, with Very Certain confidence, for Phosphate. Source Appointment GIS (SAGIS) modelling indicates that 94.2% of the phosphate input into this water body is the result of WWTW load. All other Phys-chem determinants are at High, Very Certain, status.
- 9.436 The EA has reviewed data submitted through Operator Self-Monitoring for the final effluent of Bishops Stortford WWTWs which indicates that the airport is currently operating within the industry standard for phosphorus; concentration levels of the final effluent were within 1-2milligrams per litre (mg/l) of phosphorus. However, unless the phosphate treatment process is improved, then increased total volumes of foul water to Bishops Stortford WWTWs will further add to the phosphate load for Great Hallingbury Brook.
- 9.437 Additionally, the EA has concerns regarding deterioration of the other Phys-chem elements, specifically Ammonia and Dissolved Oxygen. Their guidance allows for a 10% deterioration of water quality, providing there is no deterioration of the WFD Classification status.
- 9.438 Whilst the EA acknowledges that STAL is correct in their understanding of the new charging rules introduced 01 April 2018, as detailed in Section 10.11 (STAL Response Column) they state that STAL do need to be aware that it is up to the

developer to demonstrate that their proposal will have no detrimental impact with regards to WFD.

- 9.439 The EA has therefore recommended a condition be imposed requiring the applicant to undertake modelling to ensure that the increased passenger numbers and associated increase in total foul water volumes will not result in a deterioration of the water body known as Great Hallingbury Brook.

K NON-SIGNIFICANT TOPICS

- 9.440 Chapter 16 of the ES discusses what is termed as non-significant topics, those where significant effects are not envisaged and therefore scoped out of the main report. These are:

- Biodiversity
- Land and soil (including contamination)
- Cultural Heritage (including archaeology and built heritage assets)
- Landscape (including visual impacts)
- Waste
- Major Accidents and/or Disasters

- 9.441 *Biodiversity:*

In respect of biodiversity, the issue of air quality impacts on biodiversity, in particular local SSSIs and Epping Forest SAC, is discussed in the Air Quality section of this report.

- 9.442 Policy GEN7 seeks to protect wildlife and planning permission will only be granted when the need for the development outweighs the harm. Where protected species would be affected then mitigation measures would need to be secured by way of a condition or legal obligation. This policy is only partially consistent with the NPPF with the latter document clarifying and strengthening the requirements in protecting and enhancing the natural environment. The policy therefore has little weight.
- 9.443 Paragraph 8(c), environment objective, of the NPPF (2018) considers improving biodiversity. Chapter 15 of the NPPF relates to conserving and enhancing the natural environment. Paragraph 175(a) states that if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.
- 9.444 The Biodiversity and ecological conservation section of the ANPS sets out the government's policies in respect of biodiversity, the main aims of which are to halt overall biodiversity loss, support healthy, well-functioning ecosystems, and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.
- 9.445 On-site ecology is limited to four areas of airfield grassland and, at one location, the potential disturbance/displacement of protected species (common lizard and great crested newt). Surveys reveal that this is likely to be a 'low' population of common lizards, with a high number of juveniles suggesting that this is a breeding population. Two great crested newts were found during the reptile surveys.

- 9.446 Mitigation in respect of the protected species is to re-survey the land prior to the construction works being undertaken and translocation under licence from Natural England. Translocation, if necessary, will be to an off-site receptor site (Monk's Farm, Burton End) which is within the applicant's ownership and had planning permission granted under reference UTT/16/0837/FUL for the creation of new aquatic and terrestrial habitats. This would be in accordance with Policy GEN7 and the NPPF. ECC Ecologist has advised that the site should be monitored and that this should be secured by condition or s106 Legal Obligation.
- 9.447 Whilst there is a monitoring programme associated with the consent granted under UTT/16/0837/FUL, this is only for a period of 5 years. Therefore, if planning permission is granted there is the potential for the translocation works to take place towards the end of the current monitoring programme. As such, it is considered reasonable to require a condition relating to the monitoring of the translocation site should planning permission be granted.
- 9.448 With regards to non-statutory wildlife sites, the ES identifies that there are 10 sites within 2km of the application boundary, six of which fall within the airport boundary. The main focus of the ES is in respect of air quality impacts on the SSSIs, which has been discussed previously.
- 9.449 The potential impacts on special verges have been raised as a concern by a consultee. Adopted Uttlesford Local Plan Policy ENV9 states that development likely to harm such environments will not be permitted unless the need for the development outweighs the historic significance of the site. The policy is consistent with the NPPF (2018) and the added criteria for the assessment of substantial and less than substantial harm for designated assets is also relevant in respect of this policy. The policy therefore carries full weight.
- 9.450 In this instance, the potential for harm is not direct but rather potential harm from increased vehicular movements or fly parking. Some fly parking may be directly related to the application and the Transport Forum has and will continue to work with other stakeholders on a measured response. Therefore, it is not considered that the potential harm to special verges would outweigh the benefits of the proposal. The less than substantial harm to special verges would be outweighed by the public benefits of the proposals.
- 9.451 In relation to potential impacts on Hatfield Forest, there is already a requirement in the 2008 Legal Obligation for the applicant to carry out air quality monitoring at the site. Planning permission has been granted and consent has been obtained from Natural England to install the monitoring equipment. It is considered appropriate to require the continued monitoring of Hatfield Forest if planning permission is granted, with the requirement to implement agreed mitigation measures if harm related to the development is identified and mitigation is required.

9.452 *Land and Soil (including ground conditions and contamination)*

Approximately 7ha of land is required for the provision of new infrastructure in relation to the proposals. This is land within the airport boundary and immediately adjacent to the runway. It is noted that representations have been made in respect of the loss of land for the growing of crops. However, given its airside location and the operational safety issues regarding the use of this land for crops this is not a material planning consideration.

- 9.453 Whilst this proposal would result in the loss of greenfield areas, there are no specific planning policies relating to such land, other than those in respect of biodiversity and protected habitats.
- 9.454 Approximately 46,000m³ of spoil would be generated by the excavation works for the new taxiways and stands. This is not expected to be contaminated spoil and is therefore proposed to be used for landscaping within the airport boundary. In the event that the spoil cannot be used within the airport boundary then it would be stored for use elsewhere. Details of how the spoil will be utilised should be included in a CEMP which can be secured by way of a condition if planning permission is granted.
- 9.455 The proposed development is not envisaged to give rise to increased risk of contamination and as such no significant effects on land and soil are predicted.
- 9.456 *Cultural Heritage*
- Significant archaeological investigations have previously been carried out within the airport boundary. These have found evidence of a medieval settlement and the location of Stansted Park.
- 9.457 Adopted Uttlesford Local Plan Policy ENV4 seeks to protect sites of archaeological interest and where preservation is not possible or feasible then archaeological investigation works will be required. The policy is consistent with the NPPF (2018) and carries full weight. Chapter 16 of the NPPF (2018) seeks to conserve and enhance the historic environment. A balanced judgement is required when considering applications which will affect the significance of a non-designated heritage asset. This includes assessing whether the harm arising from the proposals is substantial or less than substantial. The level of harm must then be weighed against the public benefits arising from the proposals.
- 9.458 Adopted Uttlesford Local Plan Policy ENV2 seeks to protect the setting of listed buildings. This policy is consistent with the NPPF (2018) as it is in line with statutory duties as set out in the Planning (Listed Buildings and Conservation Areas) Act 1990. The policy therefore has full weight. Similarly, paragraphs 193-6 of the NPPF (2018) set out the planning considerations in respect of assessing planning applications affecting listed buildings, including their setting. Where less than substantial harm would arise the harm should be weighed against the public benefits of the proposal.
- 9.459 The assessment of impacts on archaeology concludes that there would only be a negligible impact on archaeology as long as standard mitigation measures were followed during the construction works.
- 9.460 The application has been considered by ECC's Principal Historic Environment Advisor who advises that there would not be any impacts on archaeology and no conditions are recommended requiring investigation prior to development.
- 9.461 With regards to listed buildings, there are two Grade II listed buildings within the airport boundary. These are currently within the setting of the wider airport and this would not change as a result of the proposals. There would not be any harm arising from the proposed development in terms of the physical works. Therefore, it is not considered that there should be any adverse impacts on listed buildings.

9.462 *Landscape:*

Adopted Uttlesford Local Plan Policy S4 has a presumption in favour of development directly related to or associated with Stansted Airport. Policy GEN2 relates to development which needs to be compatible with its surroundings and should minimise its impacts on neighbours. Adopted Uttlesford Local Plan Policy GEN4 seeks to protect the occupiers of surrounding properties from impacts relating to noise, vibrations, smell, dust, light, fumes and other pollutants. This policy has been assessed as being compatible with the NPPF (2018) and carries full weight. Adopted Uttlesford Local Plan Policy GEN5 seeks to prevent development resulting in adverse impacts with regards to light pollution. This policy has no compatibility issues with the NPPF (2018) and carries full weight. The majority of impacts have already been discussed in detail in previous topic chapters.

9.463 The construction works would be compatible with airfield operations and should not result in any visual impacts. Construction lighting would be required, but this should be seen in the context of the existing airfield lighting and therefore should not give rise to any harm.

9.464 The operational phase would see an intensification of use of the airfield, the impacts of which have already been discussed. Whilst there would be an increase in flights from the current level of operations, the ATMs already have the benefit of planning permission with the 2008 consent.

9.465 As such, the proposals should not give rise to any adverse impacts and would comply with policies S4, GEN2, GEN4 and GEN5.

9.466 *Waste:*

Construction waste would predominantly be spoil which would be reused within the airport boundary. In addition, it is proposed that there would be a CEMP in place during the construction works to ensure best environmental practices are undertaken.

9.467 With regards to operational waste, the applicant requires all new development to incorporate appropriate waste management and recycling facilities, and resource efficiency is considered in procurement decisions. They are working towards a minimum target of 70% operational waste being recycled by 2020 as well as sending zero waste to landfill.

9.468 In 2017 the airport produced approximately 6,909 tonnes of waste (including hazardous waste; excluding cabin waste), corresponding to approximately 0.26kg waste per passenger.

9.469 The airport has a Waste Strategy 2014-2030 which sets out its monitoring and targeting of waste. It sets out waste reduction measures to be carried out across the airport.

9.470 Given the existing measures in place, plus the proposals within the Waste Strategy, it is not considered that the proposals should give rise to any significant environmental impacts in terms of waste.

9.471 *Major Accidents and/or Disasters:*

The airfield is governed by a rigorous safety regime, licensed by the CAA. The risk of a major aviation safety breach, accident or related disaster involving an aircraft because of the proposed development is determined to be negligible.

9.472 Construction works will at some points be carried out whilst the runway is operational. There are strict operational controls in place to ensure work place safety. The likelihood of an accident occurring as a result of the construction activity is minimal.

9.473 Public Safety Zones are designated on land either end of the runway and there are policy objectives which seek to ensure that there is no increase in the number of people living, working or congregating in these zones. These zones are not envisaged to be altered as a result of the proposed development. Public Safety Zone policy is administered by the DfT, and the extent of each zone is reviewed periodically.

9.474 Bird control measures are in place at the airport to mitigate the potential for accidents from bird strike. These risks are not envisaged to increase as a result of the proposed development.

9.475 Airfield lighting is installed in accordance with other legislation outside the control of the planning system. Therefore, there is no potential for increased risk of accidents in relation to lighting.

9.476 The airport suffers no exceptional climatic conditions that regularly affect its operations (eg extended periods of fog or high winds) and it currently offers an excellent level of resilience during adverse weather conditions. In addition, the surrounding area is free of natural or physical obstructions that might impact on aircraft range or payload. The proposed development has no bearing on these existing conditions. As such, the risk of major accidents and/or disasters occurring at the airport in the construction and operational phases is negligible.

L Cumulative Effects

9.477 Chapter 17 of the ES considers the cumulative effects of the proposals. These fall within two categories:

9.478 **Type 1** – The interactive effects resulting from the associated effects of individual components or activities of the proposed development on a sensitive receptor, for example noise, airborne dust or traffic effects on a single receptor/group of receptors; and

Type 2 – The combined effects of several schemes which may on an individual basis be insignificant (negligible or minor), but additively, have a significant (moderate or major) effect.

9.479 A list of schemes considered with regards to cumulative effects is set out in the ES. This is a list of consented schemes envisaged to be delivered within the foreseeable future which have the benefit of planning permission. In all cases, the addition of these schemes has already been factored into the future environmental baseline within any assessments based on traffic data.

- 9.480 Developments outside of the administrative boundary of Uttlesford have not been included in the cumulative assessment. Given the location of potential schemes in relation to the airport, the cumulative impacts are most likely to arise in respect of effects where traffic data would be used. By using TEMPro for the traffic model it ensures that traffic generation from with schemes outside of the district are factored into the environmental baseline for future years.
- 9.481 In addition to committed schemes, proposed works which already has the benefit of planning permission, or are proposed to be carried out under permitted development, are included. These include:
- Stansted Transformation Phase 1 – improvements to the terminal
 - Stansted Transformation Phase 2
 - Arrivals terminal
 - Conversion of existing terminal to departures terminal
 - Airfield: Runway Rehabilitation (part of Phase 3) – expected to take place in 2022-23
 - New car parks
 - Two new ‘meet and greet’ surface car parks
 - Two short stay multi-storey car parks
 - The extension of an existing surface car park
 - New staff car park
- 9.482 Whilst there is the potential for some overlap between the construction phase and the cumulative schemes, the ES concludes that there should not be any significant environmental effects arising. CEMPs would be in place in respect of each of the projects which would require the monitoring and mitigation of any adverse effects that could arise from issues such as noise, HGV movements, waste, erosion, sedimentation and pollution.
- 9.483 Table 17.3 sets out the cumulative impact assessment matrix (see attached at end of report). This concludes that for the majority of topics the residual impacts and combined cumulative effects should be negligible. In respect of socio-economic impacts, the residual impacts were concluded to be minor-major beneficial and the cumulative effects moderately beneficial. In terms of public health and wellbeing, the residual impacts should be negligible – major beneficial and the cumulative effects are considered to be the same. Negligible – minor adverse residual impacts and cumulative effects are predicted in relation to water resources. These conclusions are reasonable.

M Other issues

9.484 Education:

ECC Education has requested a financial contribution in respect of the provision of Early Years and Child Care facilities. They consider that an additional 5,500 employees would generate a requirement for an additional 220 EYCC places. However, this calculation has only assessed the total amount of additional employment without any analysis of the origin of the additional employees, working patterns or the potential for child care facilities being made in locations other than the immediate area around the airport.

- 9.485 There is a suggestion that a new facility should be provided within the airport. However, discussions between officers, the applicant and ECC have revealed

that such a facility was provided previously but was not successful and subsequently closed.

9.486 Given the flawed analysis by ECC, which has not been reassessed despite requests to do so, it is not considered that the proposed request would meet the NPPF or CIL Regulations tests. Therefore, it would not be appropriate to request the financial contribution of £3,194,180 for the 220 EYCC places.

9.487 *Rapid Transit System*

One of the requirements set out in the Regulation 19 Uttlesford Local Plan Policy SP11 is “*To assist development of new rapid transit options between the airport and new and existing communities, land will be safeguarded to allow access at the terminal. The council will seek financial contributions from the airport operator for the delivery of an appropriate scheme.*”

9.488 There is an ambition to develop an RTS connecting proposed new settlements across North Essex, including the settlement West of Braintree, proposed Easton Park and Stansted Airport, and potentially Gilston located in the East Herts district. To date the feasibility study work on the Stansted Airport to West of Braintree section is on-going and no firm conclusions have been reached about mode or proposed route(s).

9.489 ECC has set out a requirement in their response for the applicant, in agreement with the local highway authority to identify and reserve land required to accommodate any future Rapid Transport System, and form an east-west link between the airport and any future growth locations identified in the Local Plan(s).

9.490 The ES has not identified a significant increase in demand as to warrant the development of an RTS to serve the airport, either in isolation or in combination. Furthermore, the stages reached in the preparation of the relevant local plans mean that there are still uncertainties as to where new growth will be proposed in plans yet to be examined or still being examined and not yet adopted, with the potential for main modifications. Given the uncertainties around future development, and the fact that the development does not generate a requirement for the RTS, it would be inappropriate to require the applicant to safeguard the land as part of this application.

9.491 The potential provision of the RTS will need to be explored by way of the Local Plan process.

10 Conclusion

10.1 In paragraph 1.26 of Beyond the Horizon (June 2018), the government expects applications to increase existing planning caps by fewer than 10 million passengers to be taken forward under the Town and Country Planning Act 1990. The application was made in February 2018 and proposes to change the existing cap by increasing the passenger numbers that can go through Stansted Airport by 8mppa, from 35mppa to 43mppa.

10.2 The application is made against a backdrop of national and local policy support for, and new particular national policy for, making best use of the existing runway infrastructure, as set out in the Aviation Policy Framework (2013), and the most recent Policy Statement on best use of existing capacity, taking careful account

of relevant considerations, particularly economic and environmental impacts and proposed mitigations taking account also of relevant national policies in “Beyond the Horizon” (June 2018).

- 10.3 The application is for EIA development and Regulation 3 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires that the planning authority not grant planning permission unless an EIA has been carried out in respect of that development. The application is accompanied with an ES which demonstrates the applicant’s case that the proposals represent sustainable development and would not result in significant adverse impacts. This ES has been assessed for its adequacy in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 and has been considered to be adequate notwithstanding some omissions and inadequacies (see section 10 below).
- 10.4 Regulation 4(5) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires the local planning authority to ensure they have, or have access as necessary to, sufficient expertise to examine the environmental statement. In this regard, the case officer has worked in conjunction with officers from Essex County Council (ECC), Hertfordshire County Council (HCC), East Herts District Council (EHDC), Place Services (ECC), Network Rail, Highways England (HE), Natural England, and UDC’s Environmental Health Manager (Protection), Senior Health Improvement Officer and the Communities Manager. Further expertise has been provided to ECC and HE by Jacobs and AECOM respectively. Officers have also been advised by consultants from WYG (air quality) and Bickerdike Allen Partners LLP (BAP). Consultation advice has been given by Thames Water and the Environment Agency (EA).
- 10.5 Regulation 63 of the Conservation of Habitats and Species Regulations 2017 requires the competent authority, before deciding to give any permission for a plan which is:
- a. Is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and
 - b. Is not directly connected with or necessary to the management of that site,

make an appropriate assessment of the implications of the plan or project for that site in view of that site’s conservation objectives. Natural England is satisfied that the application is broadly acceptable, alone and/or in combination with the Regulations, in particular, in relation to Epping Forest SAC. An Appropriate Assessment has concluded that only a de Minimis effect from nitrogen deposited on vegetation on a particular unit in that SAC, resulting from vehicles related to the development passing along the nearby M25, occurs and that as such adverse effects will not arise.

Development Plan

- 10.6 Section 38(6) of the Planning Act 2004 requires that the determination be made in accordance with the provisions of the development plan unless material considerations indicate otherwise.
- 10.7 Paragraphs 9.78 to 9.105 set out the planning balance in respect of the Development Plan.

Material Considerations

- 10.8 The Regulation 19 Uttlesford District Plan is a material consideration but carries limited weight at this time. The Spatial Vision identifies the importance of Stansted Airport in the London Stansted Cambridge Corridor and Policy SP11 – London Stansted Airport reflects this. This policy is subject to 20 objections and has not yet been tested for soundness. Notwithstanding this, the emphasis of the policy at the present time is to support sustainable growth of the airport. This assessment will be made in respect of adopted policies, the NPPF and other material considerations.
- 10.9 The NPPF (2018), Aviation Policy Framework (2013), the emerging Aviation Strategy (April 2018), and Beyond the Horizon, The Future of UK Aviation, Making best use of existing runways (June 2018), are material considerations. In summary, the first supports sustainable development and the last provides government support for making best use of existing runways, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations. The NPPF (2018), Beyond the Horizon (April and June 2018) carry substantial weight because each have an evidence base, are up to date, and were widely consulted on. The Aviation Policy Framework (2013) carries substantial weight insofar as it is the government's policy in respect of aviation. However, some aspects may be slightly dated in their approach and also overtaken by the more recent particular Policy Statement in "Beyond the Horizon" (June 2018).

Growth and Need

- 10.10 The ES sets out the predicted growth of the airport from the baseline of 2016 with a DM scenario of the consented 35mppa and a predicted growth to 43mppa, as applied for in this application. The ES then assesses the impacts of the additional growth from 35mppa to 43mppa with a DM and DC scenario for 2023, the year at which the divergence is predicted to occur, and 2028, the year in which the level of growth is predicted to reach the limits applied for. The approach by the ES to growth and need of the particular airport is reasonable.

Surface Access

- 10.11 The impacts on the strategic and local road networks have been considered in conjunction with Highways England, ECC and HCC. Overall, it is predicted that there would be no significant adverse impacts on either the strategic or local road networks subject to appropriate mitigation being secured by way of s106 Legal Obligation. The mitigation measures include a scheme for alterations to the M11 Junction 8 which is considered to be acceptable to Highways England. Other mitigation measures relate to funding for improvements to local roads, including the improvements to cycling and walking links, and bus and coach services and infrastructure. The funding mechanisms would be overseen by the SATF and its working groups. Funding would come from the Transport Levy plus sums of ring fenced capital funding.
- 10.12 These funding mechanisms have previously been incorporated into earlier s106 Legal Obligations (or equivalents) and have been assessed as being the most appropriate mechanism for delivering the mitigation measures. However, the terms of reference for SATF working groups, in particular the Bus and Coach Group need to be refreshed to enable future flexibility given the changes in

technology and service delivery that are being explored. Whilst specific routes and services have been identified by consultees it is not considered that this is an appropriate way of delivering the mitigation as the services are reliant on third party bus and coach companies who will need a business case for delivering a new or improved service. The SATF will also need to be reassured that any proposal represents value for money before agreeing to release funding.

Noise:

- 10.13 Air noise is an area of great complexity given different perceptions to noise across the population. The government recognises that evidence has shown that people's sensitivity to noise has increased in recent years, and there has been growing evidence that exposure to high levels of noise can adversely affect people's health.
- 10.14 There is also recognition that over recent decades there have been reductions in aviation noise (air and ground) due to technological and operational improvements and that this trend is expected to continue. The government, therefore, wants to strike a fair balance between the negative impacts of noise and the positive impacts of flights. They expect airports looking to make best use of their existing runways to share in the economic benefits of expansion with the communities by way of reducing noise impacts.
- 10.15 Impacts from air noise and ground noise from aircraft and associated operations, construction operations and vehicles associated with the proposed growth of the airport have been considered in the ES.
- 10.16 The ES demonstrates that there will be an increase in population within the LOAEL category in daytime, as set out in the NPSE. There will be a reduction of population affected by night time noise. However, whilst there will be an increase of people affected, the increases in noise levels will be around 0.5 and 0.6dB and therefore imperceptible.
- 10.17 Noise contours only tell part of the story and relate to average noise levels across a specific time period, 16 hours in the day and 8 hours at night. However, noise isn't perceived on an average basis but rather in terms of the number of events. Averaging can hide impacts from increases in numbers of events. In order to enable an assessment of overflight impacts Nx contours were produced, N65 for daytime (number of flights exceeding 65dB(A)) and N60 for night time (number of flights exceeding 60dB(A)). These demonstrate that there will be an increase of 72 movements per day. The N65 contours at levels of 100 and 200 (the number of overflights) closest to the airport enlarge at 2028 in comparison to the 2016 baseline as these areas will experience the increased number of overflights.
- 10.18 There are concerns in respect of noise levels at four schools, Howe Green School, Spellbrook Primary School, The Leventhorpe School and Mandeville Primary School. Spellbrook Primary School is predicted to experience noise levels slightly higher than the recommended 73dB LAmax when B737Max are in operation.
- 10.19 The mitigation measure for properties, including schools, community buildings and places of worship, affected by noises is a revised and updated SIGS. This offers financial support for noise insulation measures. The current scheme requires funding from property owners and covers 1088 properties. The revised scheme offers maximum grants and would not require funding from the owner.

The scheme would be available for over 2000 properties offering different levels of grants according to the noise levels experienced at the property.

- 10.20 An additional mitigation measure in respect of daytime noise is a noise contour which currently has a maximum area of 33.9km². Operations at the airport are not predicted to exceed this contour and the ES predicts that this would reduce over time with the introduction of quieter aircraft. Therefore, it is considered that to ensure the operations at the airport share the benefits with the local community it is appropriate to impose a noise contour condition which reduces in size over time. If, as a consequence of slower uptake of quieter aircraft for example, noise levels do not reduce at the rate set out in the ES then operations at the airport would be curtailed by the noise contour.
- 10.21 Night noise is controlled by measures put in place by the government and is not a matter for the local authority to seek to control. Night movements are predicted to increase from 82 movements per night to 104 and 107 in the DM and DC scenario under the current restrictions. These levels would be reached irrespective of planning permission being granted for this proposal.
- 10.22 An additional mitigation measure is the imposition of fines for flights exceeding noise levels. The fines are proposed to be paid into a Community Fund which would be given over to community projects to improve health and wellbeing.
- 10.23 In terms of air noise, the assessment methodology, approach and level of detail contained in the ES is satisfactory and the proposed mitigation measures are adequate. As such the proposals should not result in significant adverse impacts in respect of air noise.
- 10.24 Ground noise comes from various sources including the use of power units, plant and equipment and also construction. Comparison of the data sets shows increases in noise levels indicate an increase at Molehill Green (the worst affected location) of +3dB during the daytime and +2.5dB at night from the 2016 baseline. However, the comparison between the DC and DM scenarios indicates an imperceptible change.
- 10.25 Construction is predicted to take place between 2021-2 and the main focus of the assessment was the key sensitive night time period. This showed increases at the receptors of between 0.2dB and 10.6dB. Whilst the increase of 10.6dB (at the Ash Public House) is a large increase, the noise level experienced at that receptor would still be below the 45dB threshold where annoyance is expected to be experienced.
- 10.26 Some of the mitigation measures associated with air noise would also be applicable to receptors affected by ground noise. The findings of the ES are not disputed and the proposed mitigation measures are considered to be acceptable.
- 10.27 Surface access noise assessments did not include rail on the basis that the new rolling stock which would accommodate that additional growth in passenger numbers would be coming on-line with or without the proposed development.
- 10.28 Comparisons between the 2028 DC and DM scenarios indicate that noise levels would increase by 0.1dB and 0.7dB with the largest increase being at Thremhall Avenue. In comparison to the 2016 Baseline, increases of 3.8dB would be experienced at Round Coppice Road. The receptors at this point are the Novotel Hotel, located more than 150m from the road, and Stansted College which has

been designed with noise protection measures incorporated into the fabric of the building.

10.29 Surface noise impacts are therefore considered to be negligible and no mitigation is required.

10.30 *Air Quality:*

Air quality is an area of concern raised in many of the representations. There are two particular areas to consider, impacts on AQMA, (focussing on human health), and impacts on sensitive ecological receptors. There is an AQMA located in Saffron Walden in the Uttlesford district which would not be impacted by the proposals. In addition, there is an AQMA located at Hockerill junction in Bishop's Stortford which would experience an increase in traffic.

10.31 The local plan policy position in East Herts has recent been clarified with EHDC expecting to adopt their new District Plan on 23 October 2018. The proposed policy in the East Herts District Plan refers to a requirement for applications to be accompanied by an Air Pollution Assessment in line with the Council's Air Quality Planning Guidance Document. However, whilst this policy has full weight in East Herts it is a material planning consideration in Uttlesford and there is no policy basis for any such assessment in national planning policy, for example the NPPF (2018) and the National Planning Policy Guidance.

10.32 The impacts at Hockerill are predicted to be negligible, even after sensitivity testing. However, the benefits of the proposal would need to be weighed against the potential health impacts resulting from this negligible increase.

10.33 Mitigation measures aimed at improving sustainable links to the airport, such as a 50% mode share of employees and passengers accessing the airport by public transport, and the improvement to bus services, are measures that improve air quality. Bishop's Stortford is well connected to the airport by both direct rail and bus services. The continuation of air quality measures would be secured by way of s106 Legal Obligation if planning permission were to be granted. On balance, the benefits of the mitigation measures outweigh the negligible harm arising from air quality impacts.

10.34 In terms of impacts on ecological receptors, there are two principal areas of concern, local SSSIs and Epping Forest SAC and SSSI. In terms of impacts on SSSIs, the impacts are predicted to be negligible when comparisons between the DM and DC scenario are made. However, mitigation measures for Hatfield Forest and Elsenham Woods by way of monitoring, and the implementation of additional mitigation measures if identified as being required as a result of the monitoring, would be secured by way of s106 Legal Obligation if planning permission were to be granted.

10.35 NE raised concerns about the alone and in-combination impacts on Epping Forest SAC. Additional work was carried out in this respect by the applicant that demonstrated that the impacts would be negligible. To ensure the Council can comply with Regulation 63 of the Conservation of Habitats and Species Regulations (2017), Place Services was commissioned to carry out an Appropriate Assessment (11 October 2018). This concluded that the project for the development will not have an adverse effect on the integrity of Epping Forest SC as no failure of the conservation objectives is predicted, either alone or in combination.

Socio-economics

- 10.36 The ES sets out the benefits arising in respect of socio-economics. Concerns were raised in respect of the potential impacts of Brexit and the fact that the negative impacts, such as tourism deficit, were not considered. The ES was based on the Oxford Economics scenario whereby the UK leaves the EU on unfavourable terms, without negotiating a significant trade deal and the trade relationship between the UK and the EU therefore reverts to WTO rules.
- 10.37 The benefits of the proposals are recognised by a variety of parties, and the ECC Economic Growth and Skills Department consider that the increase in capacity is important to growth in Essex. In addition, the proposals increase job and skills training opportunities as well as supports local businesses and employment growth in Essex.
- 10.38 The findings of the socio-economics chapter of the ES are considered to be sound and would deliver in respect of the economic growth aspirations of national and local policy.
- 10.39 *Carbon emissions:*
- The policy in respect of carbon emissions sets out that this is an issue best dealt with at a national level. The ES used the pessimistic approach for assessing the impacts of carbon emissions as a result of the proposals. This indicates that the difference between the DM and DC scenario would be 0.3MtCO₂e. When assessed as a value per passenger, the development case would see an improvement in emissions by 4 kgCO₂e.
- 10.40 The ES concludes that Stansted Airport's share of UK aviation carbon emissions would rise from 4% in 2016 to between 4% and 5.3% of the UK's aviation emissions target in 2050, with annual aviation carbon emissions predicted to decrease between 2028 and 2050. It is considered that the DC scenario is unlikely to materially impact the UK's ability to meet its 2050 national aviation target of 37.5MtCO₂e.
- 10.41 The findings of the ES in this respect are not disputed, and as already stated, this is an issue to be addressed at a national level by the government.
- 10.42 *Climate Change:*
- National policy in respect of aviation and climate change focusses on the vulnerability of the asset in extreme weather arising from climate change impacts. In addition, the APF seeks to ensure the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. However, this aspect requires intervention at a global and national level and is not appropriate for discussion at a local level.
- 10.43 In terms of resilience of the airport in respect of climate change, mitigation measures to ensure the continued operation of the airport are identified. On this basis, the applicant has met the requirements of the EIA Regulations and no significant effects are identified.
- 10.44 *Public Health and Wellbeing:*

Decisions in respect of aviation growth are required to be in accordance with sustainable development principles, and this includes maximising wellbeing and protecting our environment, without negatively impacting on the ability of future generations to do the same.

- 10.45 The ES follows a source-pathway-receptor approach to identify and assess health impacts that are plausible and directly attributable to the proposed development.
- 10.46 Benefits, both direct and indirect, would arise from increased employment, quality of life and wellbeing from the predicted £357m GVA per annum by 2028, additional leisure trip opportunities and the associated family and social benefits arising from these.
- 10.47 Impacts on health and wellbeing are not predicted in relation to surface access, congestion or potential for reduced access to services.
- 10.48 Less than one additional emergency hospital admission and less than one additional death per annum are predicted as a result of impacts in respect of air quality. A less than 1% increase from the baseline in hypertension, depression or anxiety is predicted.
- 10.49 An increase of around 339 people who consider themselves highly annoyed by aircraft noise is predicted, which is around a 28% increase compared to the DM scenario. However, those affected at night is predicted to be very limited due to the controls set out in the Night Noise Regulations.
- 10.50 A predicted 13% increase in daytime noise events above the assessment threshold are predicted at Howe Green School, St Giles Church in Great Hallingbury, and Falcon House Care Home in Little Hallingbury. In this respect, the impacts are considered to be minor adverse. Similar impacts are considered in respect of the quality of life and wellbeing in association with amenity of green space.
- 10.51 Mitigation in the form of a Community Fund is proposed which it is envisaged would cover all the parishes in Uttlesford and the parishes falling within a 10 mile radius of the airport (whole parishes included where part of the parish falls outside of the radius). The Community Fund would be available for health and wellbeing projects within the parishes. (see attached map for proposed areas for funding)
- 10.52 *Water Resources and Flood Risk:*
- The airport has significant drainage infrastructure in place, including the balancing ponds located between the A120 and B1256. As a result of the new infrastructure an increase in capacity will be required and the proposals have been assessed by the LLFA as being acceptable and not increasing the risk of flooding.
- 10.53 Water efficiency measures are proposed to be increased on the airport and Anglian Water, as the utility provider, has not commented on the application.
- 10.54 In terms of demands on foul water infrastructure, Thames Water has identified that increased capacity will be required in association with the predicted housing growth and as a result of the proposals in this application. A technical option is

believed to be feasible and Thames Water does not object to the proposals. Likewise, the EA does not object to the proposals, subject to a condition in respect of modelling to ensure that the increased passenger numbers and associated increase in total foul water volumes will not result in a deterioration of the water body known as Great Hallingbury Brook.

10.55 *Non-Significant Topics:*

Non-significant topics relate to biodiversity, land and soil, cultural heritage, landscape, waste and major accidents and/or disasters.

10.56 Contamination and spoil are not considered to be issues resulting in significant impacts. Likewise, archaeology is not an issue in the location of the proposed airfield infrastructure works. Similarly, the construction works would not be harmful to the character of the area and would not result in harm to the landscape.

10.57 Waste would be dealt with in accordance with the Airport's Waste Strategy. This sets out its monitoring and targeting of waste, including reduction measures to be implemented across the airport. Therefore, no significant impacts are predicted.

10.58 Major accidents and/or disasters are not predicted to increase as a result of the proposals, not least because of the stringent safety regimes in place outside of the planning system.

10.59 In terms of biodiversity, translocation of protected species will be required as a result of the infrastructure works. This would be to a translocation site owned by the applicant and monitoring would be required after translocation has taken place. As a result no significant impacts would arise in respect of biodiversity.

Cumulative Effects:

10.60 Cumulative effects of the proposals with committed schemes have been assessed. This includes works proposed under permitted development by the applicant within the airport boundary.

10.61 Cumulative effects are assessed as being negligible. In respect of socio-economic impacts, the residual impacts were concluded to be minor-major beneficial and the cumulative effects moderately beneficial. In terms of public health and wellbeing, the residual impacts should be negligible – major beneficial and the cumulative effects are considered to be the same. Negligible – minor adverse residual impacts and cumulative effects are predicted in relation to water resources.

Consistency

10.62 Paragraph 213 of the NPPF (2018) states that, "existing policies [in adopted Local Plans] should not be considered out-of-date simply because they were adopted or made prior to the publication of this Framework. Due weight should be given to them, according to their degree of consistency with this Framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given)."

10.63 Policies S4 and AIR1-6 relate to proposed development within the airport boundary. S4 relates to the whole airport site and is a strategic policy and

Policies AIR1-6 are site specific. These have been assessed as being in accordance with the NPPF and can be afforded full weight, subject to their compliance with government's policy in respect of aviation.

- 10.64 Policy GEN1 relates to highway safety and alternative transport options rather than the private car. The policy is generally consistent, although there is more emphasis in the NPPF to sustainable transport modes whilst acknowledging that there will be differences in opportunities between rural and urban areas. Uttlesford is a rural area where there are challenges in providing public transport for a dispersed population, but at the same time airport demand boosts services along certain transport corridors. The NPPF is more positively worded in seeking to minimise the need to travel and maximise cyclist and pedestrian and public transport opportunities. This policy should therefore be given moderate weight.
- 10.65 Policy GEN2 relates to design and as such is only partially relevant to the application. The policy is generally in conformity with the NPPF and the areas where it doesn't strictly comply are areas around sense of place, mix of uses and function, which would not be applicable in this instance. The criteria applicable to the application are e) – water and energy consumption; g) – waste; h) environmental impacts on neighbours. Insofar as it is relevant to the application, the policy should be given full weight.
- 10.66 Policy GEN3 relates to flooding and is only partly consistent with the NPPF with approaches to flooding issues having developed considerably in the time since the policy was adopted. Therefore, the policy has limited weight with full weight being given to the NPPF and associated guidance.
- 10.67 Policy GEN4 relates to good neighbourliness and seeks to protect existing properties and users from harm arising from nuisance. This can include noise, pollution, light pollution and fumes. The policy has been assessed as being consistent with the NPPF and should be given full weight.
- 10.68 Policy GEN5 seeks to protect against harmful impacts arising from light pollution. This policy has no compatibility issues with the NPPF and should be given full weight.
- 10.69 Policy GEN6 relates to securing infrastructure required in association with proposed development. This policy is generally consistent with the NPPF, but the latter recognises the need for viability of development to be considered. In addition, there is a requirement to take into account the Community Infrastructure Regulations. The policy should be given moderate weight.
- 10.70 Policy GEN7 relates to nature conservation, seeking to protect and enhance biodiversity. The policy is only partially consistent with the NPPF with the latter document clarifying and strengthening the requirements in protecting and enhancing the natural environment. The policy therefore has little weight.
- 10.71 Policy ENV2 is consistent with the NPPF as it is in line with statutory duties as set out in the Planning (Listed Buildings and Conservation Areas) Act 1990. The NPPF gives additional assessment criteria relating to the assessment of substantial and less than substantial harm. The policy therefore carries full weight.
- 10.72 Policy ENV4 relates to the protection of archaeological remain and scheduled protected ancient monuments. The policy is consistent with the NPPF and

therefore carries full weight. The assessment of substantial and less than substantial harm for designated assets is also relevant in respect of this policy.

- 10.73 Policy ENV7 relates to the protection of designated ecological assets. The policy is only partly consistent with the NPPF with the emphasis shifting from the need for development to the benefits needing to clearly outweigh the harm. In addition, there are additional requirements under the Habitats and Species Regulations (2010) which relate to European designated sites. Therefore, the policy has little weight.
- 10.74 Policy ENV9 relates to the protection of historic landscapes. The assessment criteria for the assessment of substantial and less than substantial harm for designated assets is also relevant in respect of this policy. It is consistent with the NPPF and therefore carries full weight.
- 10.75 Policy ENV11 seeks to protect existing uses from noise generators. The policy is generally consistent with the NPPF but the NPPF is more specific with regard to existing businesses recognising the need to balance the needs of business and the protection of existing amenities. The policy therefore carries moderate weight.
- 10.76 Policy ENV12 relates to the protection of water resources in respect of pollution. The policy is consistent with the NPPF and carries full weight.
- 10.77 Policy ENV13 seeks to prevent development in areas of poor air quality. This is generally consistent with the NPPF, although the latter document sets out a requirement that any development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan. The policy therefore carries moderate weight.

The Planning Balance

- 10.78 S70(2) of The Town and Country Planning Act 1990 requires the local planning authority, in dealing with a planning application, to have regard to:
- (a) the provisions of the development plan, so far as material to the application,
 - (aza) a post-examination draft neighbourhood development plan, so far as material to the application,
 - (b) any local finance considerations, so far as material to the application, and
 - (c) any other material considerations.
- 10.79 S38(6) of the Planning and Compulsory Purchase Act 2004 requires that, if regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts, the determination must be made in accordance with the plan unless material considerations indicate otherwise.
- 10.80 Policy S4 supports the principle of development directly related to or associated with Stansted Airport that Policy S4 covers. The proposed infrastructure applied for in this application is directly related to the airport and therefore complies with Policy S4. Policies AIR1-6 do not directly relate to any of the areas where infrastructure is proposed to be constructed and likewise do not specifically relate to a proposed uplift in passenger numbers.

- 10.81 Other policies relevant to the consideration of this application fall within two general categories – general policies and environmental policies.
- 10.82 Policy GEN1, which received moderate weight due to its compatibility with the NPPF, states that development will only be permitted if all of the following criteria are met:
- a) Access to the main road network must be capable of carrying the traffic generated by the development safely
 - b) The traffic generated by the development must be capable of being accommodated on the surrounding transport network
 - c) The design of the site must not compromise road safety and must take account of the needs of cyclists, pedestrians, public transport users, horse riders and people whose mobility is impaired
 - d) It must be designed to meet the needs of people with disabilities if it is development to which the general public expect to have access
 - e) The development encourages movement by means other than driving a car.
- 10.83 The proposal does not propose any new or alterations to access to the main road network so criterion a) is not relevant. Similarly, there are no alterations to the layout of the site itself proposed within the application so criteria c) and d) are also not relevant. In terms of traffic generation, the proposals have been considered by the highway authorities for Essex and Hertfordshire and Highways England who have all concluded that the proposals, subject to appropriate mitigation measures would comply with criterion b).
- 10.84 In terms of criterion e), the application site is already well served by public transport, and there are commitments to use best endeavours to maintain and/or increase sustainable transport mode shares. Furthermore, whilst limited options exist for access by walking and/or cycling, the Stansted Area Transport Forum and the reporting sub-groups (bus and coach, highways and rail) have the ability to authorise funding for sustainable transport improvements, including schemes which incentivise walking and/or cycling. The schemes are funded by two means; two fixed capital ring fenced sums, one associated with bus and coach improvements and the other related to local roads. In addition, there is funding secured by way of a transport levy, a on every car parking transaction, and a fixed annual sum for staff parking. These mechanisms already exist and have performed well and, if planning permission were to be granted are proposed to be carried forward in a new s106 Legal Obligation. As such, the mitigation measures proposed result in the proposals complying with Policy GEN1. Furthermore, they would comply with the sustainable transport objectives of the NPPF.
- 10.85 Policy GEN2 sets out various design criteria and proposals are required to meet all aspects. However, as these are generally related to physical structures or developments freely accessible by members of the public. In this instance the proposed physical works relate to infrastructure within the airfield and therefore the majority of the criteria are not relevant to the proposals. However, criterion e) relates to energy and water consumption, g) relates to waste and h) relates to environmental impacts. Insofar as these criteria are relevant to the proposals, the statutory consultees have confirmed that they have no objections to the proposals and as such they comply with Policy GEN2.

- 10.86 Policy GEN3 relates to flood protection and is only partially compatible with the NPPF and therefore only has limited weight. In terms of flood protection, the proposals have been considered by the LLFA who confirm that they have no objections to the proposals. This would be subject to appropriate mitigation measures being secured by condition relating to increased storage capacity for surface water runoff. Insofar as the policy relates to the prevention of increased risk of flooding the proposals comply with Policy GEN3 and with the requirements set out in the NPPF.
- 10.87 Policy GEN4 does not permit development where it will give rise to nuisance, such as noise, pollution or cause material disturbance or nuisance to occupiers of surrounding properties. In this regard, the proposals do not comply with Policy GEN4 due to the impacts arising from noise and air pollution. Paragraph 180 requires decisions to mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development.
- 10.88 Currently the applicant operates a Sound Insulation Grant Scheme (SIGS) which covers around 1080 properties. A new, enhanced scheme is proposed in relation to this application which would increase the funding available and around 2000 properties would be eligible for grants.
- 10.89 Other mitigation measures currently in place are a limit on the number of flights, capped at 274,000, and a noise contour. Outside of the planning system there are also controls on night flights which are not affected by this application. The Aviation Policy Framework and subsequent documents in relation to the development of the aviation strategy recognises the need for airports wishing to make better use of their runways to pass on the benefits of quieter aircraft. Currently, the 57dB leq noise contour has a maximum area of 33.9sqkm. The airport is operating well inside that limit, and could continue to do so up to and including their current cap of 35mppa. Therefore, if planning permission were to be granted, it is appropriate to require the applicant to put forward a scheme to reduce the size of the contour in line with the increase of their operations. This can be secured by way of a condition and the Council would seek a reduction to 28.7sqkm, in line with the predictions in the ES. These measures would ensure that the proposals would comply with the NPPF and the APF.
- 10.90 Policy GEN5 does not permit lighting schemes unless the level of lighting is the minimum necessary and glare and light spillage from the site is minimised. Whilst no details of lighting is included in the application, given the location and nature of the proposals it is acknowledged by the applicant that additional lighting will be required in this location. Given the operational requirements of the applicant, as regulated by bodies and legislation outside of the control of the planning system, the lighting will be the minimum necessary. The location of the infrastructure works is within the operational airfield and therefore an area which already has significant lighting requirements. Therefore, in this context the proposals comply with Policy GEN5.
- 10.91 Policy GEN6 states that development will not be permitted unless appropriate infrastructure which arises as a result of the proposals is secured. In this case, the proposed development would result in impacts on the strategic highway network which would require mitigation works to be carried out. A mitigation scheme has been identified and could be secured by way of a clause in s106 Legal Obligation, as recommended by HE. However, given the potential lead-in time before the requirement for the mitigation package being required to be delivered, there is the potential that the proposed identified mitigation may not be

the appropriate mechanism. Therefore, a secondary clause is proposed which requires a reassessment of the situation at the time the mitigation is required and the implementation of an alternative scheme, or if funding for a strategic mitigation measure for the M11 J8 being forthcoming, a financial contribution towards that scheme would be required as alternative mitigation.

- 10.92 Additional mitigation measures associated with surface access will also be required. These would be delivered through the Stansted Area Transport Forum. The funding mechanisms will be a mix of fixed capital sums to be spent over a period of time and funds raised by the Transport Levy. By securing the mechanisms by way of s106 Legal Obligation the proposal would meet the requirements of Policy GEN6.
- 10.93 Policy GEN7 does not permit development that would have a harmful effect on wildlife, protected species or habitats suitable for protected species unless the need for development outweighs the importance of the feature for nature conservation. Mitigation and/or compensation measures are acceptable provided they can be secured by way of condition and/or s106 Legal Obligation. The proposal will result in direct impacts on protected species and their habitat through the development of the new infrastructure. Mitigation by means of translocation to an off-site receptor has been put forward by the applicant. The off-site receptor is within the control of the applicant and the mitigation measures proposed would be appropriate.
- 10.94 Policy ENV2 seeks to protect, inter alia, the setting of listed buildings. The location of the proposed infrastructure is such that impacts are unlikely to arise. Indirect impacts in terms of increased flights would arise from the proposals. On balance, it is considered that the proposals comply with Policy ENV2.
- 10.95 Policy ENV4 seeks to protect archaeological remains in situ, unless the need for development outweighs the importance of the archaeology. In this instance, whilst there are areas within the airport boundary where significant archaeological remains have been discovered, it is considered that there is little scope for there to be any in the locations of the proposed infrastructure. On that basis, the proposals would comply with Policy ENV4.
- 10.96 Policy ENV7 does not permit development which would adversely affect nationally or locally designated sites unless the need for development outweighs the particular importance of the nature conservation value of site or reserve. Any potential impacts on such sites would be indirect as a result of pollution, in particular in respect of Hatfield Forest SSSI and East End Wood SSSI. In this instance there would need to be a balance between the potential harm, although no significant levels of harm have been identified in the ES, and the need for the development. Both sites are currently experiencing harm due to pollutants and mitigation measures in the form of long-term monitoring are proposed to be continued, with appropriate mitigation being identified and implemented if required. Given the limited weight that can be applied to this policy due to the shift in national policy towards assessing the benefits of the proposal against the harm, the proposals can be considered to comply with Policy ENV7. In terms of the NPPF, this states that unless the benefits of development outweigh the harm to designated sites then planning permission should be refused. The APF sets out that the social and economic benefits of aviation growth need to be weighed against the environmental impacts. On the basis that no significant impacts have been identified and mitigation measures involving monitoring and implementing

mitigation if harm is arising as a result of the proposals, it is considered that the proposals comply with the NPPF and the APF.

- 10.97 Wider potential impacts were identified by Natural England in respect of Epping Forest SSSI and SAC, the latter designation requiring the Council to undertake an Appropriate Assessment. The additional information submitted by the applicant, and the Appropriate Assessment, confirm that the proposals would not adversely affect the integrity of the Epping Forest SAC either alone or in combination. In addition, there would not be any adverse impacts on Epping Forest SSSI.
- 10.98 Policy ENV9 does not permit proposals likely to harm significant local historic landscapes, in this instance protected lanes, unless the need for development outweighs the historic significance of the site. The proposals would not have a direct impact on historic landscapes, but there is the potential for indirect impacts arising from activities such as fly parking. The applicant, by way of the Stansted Area Transport Forum, operates a mechanism for trying to resolve or at least minimise fly parking issues. As such, any potential impact on historic landscapes would be minimal and the proposal can be considered to comply with Policy ENV9.
- 10.99 Policy ENV11 prevents noise generating development particularly where it would adversely affect the reasonable occupation of existing or proposed noise sensitive development nearby. The exception is where the need for the development outweighs the degree of noise generated. In respect of aircraft noise, the impacts arising affect people in different ways. Some people can live very close to the airport and not consider themselves to be affected by noise, whereas people living some distance from the airport, where aircraft are overflying at heights in excess of 5,000 ft consider themselves to be adversely affected. In order to assess noise impacts a series of analytical measures are used in the form of various noise contours. Historically noise contours have been set at 57dB leq and the current noise contour must not exceed 33.9sqkm. The assessment of the application using a mix of contour types has demonstrated that the proposals would not exceed the current conditioned noise contour, and will reduce in the future. On the basis of the assessment the proposals would not give rise to increased noise and would result in a reduction of the existing 57dB leq noise contour to no more than 28.7sqkm by the end of 2028, which could be secured by way of a condition. On balance, it is considered that the proposals comply with Policy ENV11.
- 10.100 Policy ENV12 does not permit development likely to cause contamination of groundwater unless effective safeguards are provided. An analysis of the predicted impacts has indicated that contamination is not likely and as such the proposals comply with Policy ENV12.
- 10.101 Policy ENV13 does not permit development where users would be exposed on an extended long-term basis to poor air quality outdoors near ground level. The development itself does not result in a scheme where users would be exposed to poor air quality. However, the vehicular movements associated with surface access to the airport, plus the pollution from aircraft, would result in impacts on the local area. On the basis that this policy is specifically directed towards two specific areas adjacent to the M11 and the A120, the proposals technically comply with the requirements of the policy.

- 10.102 However, on air quality issues, the NPPF states that decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas. Opportunities to improve air quality or mitigate impacts should be identified.
- 10.103 Uttlesford only has one AQMA this is located in Saffron Walden where impacts are unlikely to arise as a result of the development proposals. However, Bishop's Stortford, falling under the administration of East Hertfordshire District Council, has an AQMA based around the Hockerill junction, and a further one located in Sawbridgeworth. The East Herts adopted policy is Policy ENV27 which states, inter alia, that development which will significantly increase air pollution will not be permitted. East Herts District Plan Policy EQ4, which has been tested for soundness but not yet adopted, states that the effect of development on air quality is a material consideration. The policy refers to that Council's Air Quality Action Plan and Air Quality Planning Guidance.
- 10.104 The ES identifies additional traffic would flow through the Hockerill AQMA but this increase would result in negligible impacts on the AQMA. EHDC does not have a mitigation plan for the AQMA but seeks to ensure that appropriate alternative sustainable transport measures are incorporated into developments affecting the AQMA. As discussed above, the applicant already provides sustainable transport initiatives by way of funding for new bus and coach routes, funding towards local schemes for improving walking and cycling opportunities. Additional funding for schemes could be secured in respect of the current proposals and appropriate sustainable transport schemes can be identified and financed by way of the SATF and the Working Groups. On this basis, the proposals comply with the requirements of the NPPF.
- 10.105 Overall, the proposals comply with the relevant local plan policies. The proposals also comply with the material considerations of national policy, the policies as set out in the NPPF (2018), the APF (2013) and the BTH (June 2018), and insofar as it is relevant ANPS (2018). The APF sets out the government's primary objective which is to achieve long-term economic growth. The aviation sector is seen as a major contributor to the economy and its growth is supported but within a framework which maintains a balance between the benefits of aviation and its costs, particularly its contribution to climate change and noise. Whilst issues around climate change and carbon emissions are to be dealt with at a government level, it is considered that this application balances the primary objective of economic growth with the impacts of aviation. Appropriate mitigation measures are identified and could be secured by way of conditions or s106 Legal Obligation.

Overall Conclusion:

- 10.106 The ES has demonstrated that there would be negligible impacts arising from the proposals. These have been assessed and tested by various consultees and issues arising have been addressed and appropriate mitigation measures identified.
- 10.107 Section 38(6) of the Planning Act 2004 requires that the determination be made in accordance with the provisions of the development plan unless material considerations indicate otherwise. The application accords with the development plan.

- 10.108 It is considered that the proposal represents a sustainable form of development in line with the NPPF (2018) paragraph 8 and accords with the NPPF.
- 10.109 The application makes best use of the existing runway infrastructure in accord with Beyond the Horizon (June 2018) and the Aviation Framework (2013).
- 10.110 No other matters sufficiently outweigh these considerations.
- 10.111 It is therefore recommended that the application be approved subject to s106 Legal Obligation and conditions, as set out below.

11 Adequacy of the ES

11.1 Uttlesford District Council commissioned ESIA-Consult Ltd to undertake an Independent Peer Review of the Environmental Statement submitted with the application (<https://uttlesford.moderngov.co.uk/documents/s8353/ES%20Review.pdf>). The evaluation was undertaken by Martin Broderick (principal reviewer) and Dr Bridget Durning (secondary reviewer). The ES was assessed using a grading system A-F which are used to establish whether the document overall passes or fails the assessment.

11.2 The Assessment Grades are as follows:

A = indicates that the work has generally been well performed with no important omissions

B = is generally satisfactory and complete with only minor omissions and inadequacies

C = is regarded as just satisfactory despite some omissions or inadequacies

D = indicated that parts are well attempted but, on the whole, just unsatisfactory because of omissions or inadequacies

E = Not satisfactory, significant omissions or inadequacies

F = Very unsatisfactory, important task(s) poorly done or not attempted

N/A = Not applicable in the context of the ES or the project

11.3 The results of the assessments are as follows:

Section in proforma	Overall grade for that section	Area where more information required
1 Description of the development	B/C	The description of the development is generally satisfactory and complete. However, there are some omissions or inadequacies relating to raw materials usage, waste arisings and discussions of limitations.
2 Description of the environment	B/C	The description of the environment is generally satisfactory and complete. However, there are some omissions or inadequacies relating to addressing uncertainty, assessment of alternatives and need to provide a policy compliance schedule.
3 Scoping, consultation and effect identification	C	There are omissions and inadequacies relating to showing where responses to consultation comments have been addressed in ES. Also no

		discussion of hazards and potential for accidents.
4 Prediction and evaluation of effects	B/C	The prediction and evaluation of effects is generally satisfactory and complete. However, there are some omissions or inadequacies relating to using more up to date guidance i.e. noise and discussions of consequential impacts.
5 Alternatives	D	This section is unsatisfactory because design and size not considered and there is no tabulated comparison of these alternatives.
6 Mitigation and monitoring	C/D	Limitations of mitigation measures not explicitly discussed. An overarching EMP needs to be produced that links the CEMP, CoCP and CTMP to STALs ISO14001 EMS.
7 Non-Technical Summary	B/C	The NTS is generally satisfactory and complete. However, there is one omission relating to discussion of the confidence which can be placed in the assessment.
8 Organisation and Presentation of information	C	The Table of Contents is not adequate and there are no contact details provided in ES.
Overall Grade (A-F)	C	The documentation evaluated is overall graded as C i.e. as just satisfactory despite some omissions and inadequacies.

- 11.4 The final grading of the assessment is noted and analysis indicates that the overall grading of C/D is dragged down due to “design and size not considered and there is no tabulated comparison of these alternatives”.
- 11.5 Regulation 18(3)(d) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires an environmental statement to include:
“a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment”
- 11.6 The reviewer has marked this section of the ES down due to “design, technology, location size, and scale, layout of site, management arrangements” not being considered.
- 11.7 The proposal is for a throughput of a specific number of passengers and the assessment has been made on that basis. The “Do Minimum”, also known as “Do Nothing”, compared to the “Do Something” or “Development Case” scenarios are the most appropriate assessments to be undertaken. This is noted by the reviewer at section 5.4, but again this has been graded as D with no explanation as to why this grading was reached. However, in respect of comparing the “no action do-nothing” alternative with the proposals at 5.2, this section has been graded C/D with the downgrading attributed to the fact that there is no tabulation of advantages/disadvantages being provided.
- 11.8 In terms of physical infrastructure such as the RAT and RET, the way in which the runway operates limits the alternative positions and options that can be considered.

- 11.9 Therefore, it is officer's view that this criterion should be more realistically be graded as C as a minimum. This would result in the overall grading for the ES being B/C – is regarded as generally satisfactory with only some omissions or inadequacies.
- 11.10 The Assessment included a suggested condition that a comprehensive Environmental Management Plan be linked to the applicant's Environmental Management System (EMS) which is certified under the international standard ISO 4001:2015. However, the EMS would deal with issues controlled by legislation outside of the planning system. Therefore, it is not considered appropriate to impose the recommended condition as this would be duplicating requirements, which is not the role of the planning system.

RECOMMENDATION – CONDITIONAL APPROVAL SUBJECT TO S106 LEGAL OBLIGATION:

- (I) The applicant be informed that the Planning Committee would be minded to refuse planning permission for the reasons set out in paragraph (III) unless the freehold owner enters into a binding obligation to cover the matters set out below under Section 106 of the Town and Country Planning Act 1990, as amended by the Planning and Compensation Act 1991, in a form to be prepared by the Assistant Director – Legal and Governance, in which case he shall be authorised to conclude such an obligation to secure the following:**
- i) Noise mitigation – new Sound Insulation Grant Scheme to be introduced (see map attached)**
 - ii) Transport:**
 - a. Providing capacity and safety improvements OR an equivalent funding for a package for the M11 and associated junctions**
 - b. Providing funding for a package of transport related improvements for:**
 - i. Local Roads Network Fund**
 - ii. Local Bus Network Development Fund**
 - c. Continue to provide the existing Transport Levy and increase it by the addition of a contribution from every transaction from the Express Set Down (forecourt) area**
 - d. Rail users discount scheme, with a higher rate of discount and revised eligibility criteria**
 - e. Revised targets for public transport mode share and 'Kiss and Fly' access for passengers and staff access by single occupancy private car with penalty clauses for missed targets**
 - f. Update and revise working arrangements for the Transport Forum**
 - g. Updated and revised Airport Surface Access Strategy and Travel Plan production schedule**
 - h. Commitment to improve bus and coach station**
 - i. Monitor STAL road network and provide mitigation if required as a result of adverse impacts arising on the local road network**
 - iii) Skills, education and employment – To provide, support and maintain a package of measures to secure local socio-economic benefits:**
 - a. Airport Employment Academy**
 - b. Aerozone**
 - c. Stansted Airport College**
 - d. Local Supply Chain Support**
 - iv) Ecology – protect and enhance environmentally sensitive sites**

- a. Produce and implement a Management and improvement Plan for East End Wood
 - b. Continue to monitor, and provide mitigation if required as a result of adverse impacts arising, Hatfield Forest
 - c. Monitoring of water quality of the biological interests of local brooks
 - v) Public Health and Wellbeing – provide funding for a Community Fund for public health and wellbeing projects (see draft proposals attached)
 - vi) Payment of monitoring fee
- (II) In the event of such an obligation being made, the Assistant Director Planning shall be authorised to grant permission subject to the conditions set out below
- (III) If the freehold owner shall fail to enter into such an obligation within a reasonable period of time, the Assistant Director Planning shall be authorised to refuse permission in his discretion anytime thereafter for the non-delivery of:
- i) Noise mitigation – new Sound Insulation Grant Scheme to be introduced
 - ii) Transport:
 - a. Providing capacity and safety improvements OR an equivalent funding for a package for the M11 and associated junctions
 - b. Providing funding for a package of transport related improvements for:
 - i. Local Roads Network Fund
 - ii. Local Bus Network Development Fund
 - c. Continue to provide the existing Transport Levy and increase it by the addition of a contribution from every transaction from the Express Set Down (forecourt) area
 - a. Rail users discount scheme, with a higher rate of discount and revised eligibility criteria
 - b. Revised targets for public transport mode share and ‘Kiss and Fly’ access for passengers and staff access by single occupancy private car with penalty clauses for missed targets
 - c. Update and revise working arrangements for the Transport Forum
 - d. Updated and revised Airport Surface Access Strategy and Travel Plan production schedule
 - e. Commitment to improve bus and coach station
 - iii) Skills, education and employment – To provide, support and maintain a package of measures to secure local socio-economic benefits:
 - a. Airport Employment Academy
 - b. Aerozone
 - c. Stansted Airport College
 - d. Local Supply Chain Support
 - iv) Ecology – protect and enhance environmentally sensitive sites
 - a. Produce and implement a Management and improvement Plan for East End Wood
 - b. Continue to monitor, and provide mitigation if required as a result of adverse impacts arising, Hatfield Forest
 - c. Monitoring of water quality of the biological interests of local brooks

v) Public Health and Wellbeing – provide funding for a Community Fund for public health and wellbeing projects

Conditions:

STAL is accepting of the conditions, and in particular the pre-commencement conditions as per the Town and Country Planning (Pre-commencement Conditions) Regulations 2018.

1. The development hereby permitted shall be begun before the expiration of 3 years from the date of this decision.

REASON: To comply with the requirements of Section 91 of the Town and Country Planning Act 1990 as amended by Section 51 of the Planning and Compulsory Purchase Act 2004.

2. Prior to reaching 35mppa and following consultation with the Environment Agency a scheme for the provision and implementation of water resource efficiency measures, during the operational phases of the development shall be submitted to and agreed, in writing, with the Local Planning Authority. The scheme shall include a clear timetable for the implementation of the measures in relation to the operation of the development. The scheme shall be implemented and the measures provided and made available for use in accordance with such timetables as may be agreed..

The scheme shall include the identification of locations for sufficient additional water meters to inform and identify specific measures in the strategy. The locations shall reflect the passenger, commercial and operational patterns of water use across the airport:

REASON: In order to secure a sustainable form of development, as set out in paragraph 150 of the National Planning Policy Framework and Policy GEN2(e) of the Uttlesford Local Plan (adopted 2005).

3. Prior to the commencement of construction works, a Construction Environmental Management Plan shall be submitted to and approved in writing by the local planning authority. The construction works shall subsequently be carried out strictly in accordance with the approved CEMP, unless otherwise agreed in writing.

The CEMP must incorporate the findings and recommendations of the Environmental Statement and must incorporate the following plans and programmes:.

- (a) External Communications Plan
 - (i) External communications programme
 - (ii) External complaints procedure
- (b) Pollution Incident Prevention and Control Plan
 - (i) Identification of potential pollution source, pathway and receptors
 - (ii) Control measures to prevent pollution release to water, ground and air (including details of the surface/ground water management plan)

- (iii) Control measures for encountering contaminated land
- (iv) Monitoring regime
- (v) Emergency environmental incident response plan
- (vi) Incident investigation and reporting
- (vii) Review/change management and stakeholder consultation
- (c) Site Waste Management Plan
 - (i) Management of excavated materials and other waste arising
 - (ii) Waste minimisation
 - (iii) Material re-use
- (d) Nuisance Management Plan (Noise, Dust, Air Pollution, Lighting)
 - (i) Roles and responsibilities
 - (ii) Specific risk assessment – identification of sensitive receptors and predicted impacts
 - (iii) Standards and codes of practice
 - (iv) Specific control and mitigation measures
 - (v) Monitoring regime for noise
- (e) Management of Construction Vehicles
 - (i) parking of vehicles of site operatives
 - (ii) routes for construction traffic

REASON: To protect amenity of neighbouring properties and in the interests of highway safety, in accordance with Uttlesford Local Plan Policies GEN1, GEN2, GEN4, ENV11 (adopted 2005).

4. Prior to commencement of the development, a detailed surface water drainage scheme for the airfield works hereby approved based on the calculated required attenuation volume of 256m³, must be submitted to and approved in writing by the local planning authority. The scheme must be implemented in accordance with the approved details as part of the development, and should include but not be limited to:

- Detailed engineering drawings of the new or altered components of the drainage scheme.
- A final drainage plan which details exceedance and conveyance routes, and location and sizing of any drainage features.
- A written report summarising the scheme as built and highlighting any minor changes to the approved strategy.

REASON: To prevent surface water flooding both on- and off-site, in accordance with the National Planning Policy Framework. This condition must be 'pre-commencement' to ensure that the development is only carried out in accordance with the above details.

5. A Biodiversity Management Strategy (BMS) in respect of the translocation site at Monks Farm shall be submitted to, and approved in writing by, the local planning authority prior to the commencement of construction works.

The content of the BMS shall include the following:

- Description and evaluation of features to be managed
- Ecological trends and constraints on site that might influence management
- Aims and objectives of management
- Appropriate management options for achieving aims and objectives
- Prescriptions for management actions

- Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five year period)
- Details of the body or organisation responsible for implementation of the Strategy
- Ongoing monitoring and remedial measures

The Strategy shall also set out (where the results from monitoring show that conservation aims and objectives of the BMS are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The approved Strategy will be implemented by the developer in accordance with the approved details.

REASON: To conserve protected and priority species and allow the Local Planning Authority to discharge its duties under the UK Habitats Regulations 2017, the Wildlife and Countryside Act 1981 as amended, and Policy GEN7 of the Uttlesford Local Plan (adopted 2005) and the NPPF.

6. All ecological mitigation and enhancement measures and/or works shall be carried out in accordance with the details contained in the Stansted – Ecology Mitigation Strategy (RPS, February 2018) forming part of the ES Appendix 16.2 to the satisfaction of the local planning authority.

REASON: To conserve and enhance protected and priority species and allow the Local Planning Authority to discharge its duties under the UK Habitats Regulations, the Wildlife and Countryside Act 1981 as amended and s40 of the NERC Act 2006 (Priority habitats and species) and s17 Crime and Disorder Act 1998, and in accordance with Policy GEN7 of the Uttlesford Local Plan (adopted 2005) and the NPPF.

7. The area enclosed by the 57dB(a) Leq, 16h (0700-2300) contour shall not exceed 33.9 sq km for daytime noise.

By the end of the first calendar year that annual passenger throughput exceeds 35million, or by 31 December 2024, whichever is the sooner, a strategy shall be submitted to, and agreed with, the local planning authority, which defines the measures to be taken by STAL or any successor or airport operator to reduce the area of the noise contour by the end of 2028 for daytime noise to 28.7sq km for the area exposed to 57dB(A) Leq 16h (0700-2300). Thereafter, from 2029, the area enclosed by the 57dB(A) Leq 16hr (0700-2300) contour shall not exceed 28.7sqkm for daytime noise.

REASON: In the interests of protecting the amenity of local residents, in accordance with Uttlesford Local Plan Policy ENV11, and in accordance with the principle of the aviation industry sharing the benefits of improvements to technology with local communities, as set out in the Aviation Policy Framework.

For the purposes of condition 7, the noise contour shall be calculated by the CAA's Environmental Research and Consultancy Department (ERCD) Aircraft Noise Contour (ANCON) model (current version 2.3). (or as may be updated or amended) and using the standardised average mode.

8. The passenger throughput at Stansted Airport shall not exceed 43 million passengers in any 12 calendar month period. From the date of this permission, the airport operator shall report the monthly and moving annual total numbers of

passengers in writing to the local planning authority no later than 28 days after the end of the calendar month to which the data relate.

REASON: To ensure the predicted effects of the development are not exceeded, in accordance with policies in the Uttlesford Local Plan and the NPPF.

9. There shall be at Stansted Airport a limit on the number of occasions on which aircraft may take-off or land at Stansted Airport of 274,000 Air Transport Movements during any 12 calendar month period, of which no more than 16,000 shall be CATMs (Cargo Air Transport Movements). From the date of the granting of planning permission, the developer shall report the monthly and moving annual total numbers of Aircraft Movements, PATMs (Passenger Air Transport Movements) and CATMs in writing to the local planning authority no later than 28 days after the end of the calendar month to which the data relate.

REASON: To protect the amenity of residents who live near the airport and who are affected by, or may be affected by aircraft noise, in accordance with Uttlesford Local Plan Policy ENV11 (adopted 2005) and to ensure the predicted effects of the development are not exceeded.

For the purposes of condition 9, the limit shall not apply to aircraft taking off or landing in any of the following circumstances:

- a) the aircraft is required to land at the airport because of an emergency, a divert or any other circumstance beyond control of the operator and commander of the aircraft; and
- b) the aircraft is engaged on the Head of State's flight, or on a flight operated primarily for the purposes of the transport of government Ministers or visiting Heads of State or dignitaries from abroad.

10. Within 6 months from the date of this permission a scheme for the installation of electric vehicle charging points at the airport shall be submitted to and approved in writing by the local planning authority. The scheme shall indicate the numbers, locations and programme for installation. Subsequently, the charging points shall be installed in accordance with the approved details and retained thereafter.

REASON: To ensure adequate mitigation measures are in place to address the predicted increase in air pollution as a result of the development, in accordance with paragraph 181 of the NPPF.