**Doc. No. SSE/2/a**
**Case Ref. 2032278**

Appeal by BAA Ltd and Stansted Airport Ltd following the refusal by Uttlesford District Council of planning application UTT/0717/06/FUL

# Proof of Evidence on behalf of Stop Stansted Expansion

# Strategic Environmental Issues

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# 1 INTRODUCTION

## 1.1 Personal details

1.1.1 My name is Riki Therivel and I appear at the Public Inquiry on behalf of Stop Stansted Expansion ('SSE').

## 1.2 Qualifications and experience

1.2.1 I have a PhD in strategic environmental assessment from Oxford Brookes University, and studied environmental engineering at MSc level at Cornell University (USA) and Kyoto University (Japan). I am a part-time visiting professor at Oxford Brookes University's School of the Built Environment and a partner in the environmental consulting firm Levett-Therivel.

1.2.2 I have advised a wide range of organisations about impact assessment, including the Department for Transport, the former Office of the Deputy Prime Minister, the Ministry of Defence, the Scottish Executive and the governments of Iceland, South Africa, Austria and Qatar. Recently I advised the East of England Regional Assembly about the Habitats Regulations Assessment prepared for the East of England Plan, and provided evidence to the public inquiry on the Thames Gateway Bridge on behalf of Transport 2000.

1.2.3 I have written eight academic books about strategic environmental assessment, environmental impact assessment and environmental auditing. I was the 2002-3 recipient of the International Association for Impact Assessment's Individual Award for Contribution to Impact Assessment.

# 2 SCOPE OF EVIDENCE

## 2.1 Core evidence

2.1.1 In July 2006, I produced a report for SSE entitled 'Environmental Statement for Stansted Generation 1: Analysis of Strategic Issues'. This was included at Section 3, Volume 2 of SSE's submission to Uttlesford District Council ('UDC') dated 14 July 2006 [CD/202].

2.1.2 My July 2006 report, updated to reflect changed policy and environmental circumstances, forms my core evidence. I focus on how well the Generation 1 environmental statement (ES) covers cumulative impacts, whether its proposed mitigation measures adequately deal with the proposal's likely impacts, and issues of long-term sustainability.

# 3 CUMULATIVE IMPACTS OF STANSTED GROWTH

## 3.1 The proposal is inextricably linked to other projects

3.1.1 The Generation 1 ES begins by stating that the proposed development is a mere change to planning conditions:

> *'The proposed development is... that which was granted planning permission in 2003 subject to the same conditions, save in respect of MPPA1 [which would be removed] and ATM1 [which would be increased from 241,000 to 264,000 ATMs]... This application does not seek planning permission for any additional physical developments/facilities that do not currently have planning permission'*.[1]

3.1.2 However subsequent sections make clear that achieving the proposed increases in air traffic movements and passenger numbers would require new developments in addition to those that already have planning permission. They include:[2]

- Zone G short stay car park extension;
- Northside Long Stay car parking infill;
- Northside Long Stay car parking Phase 5;
- Westward extension to Enterprise House staff car parking zone;
- Two new hotels plus a restaurant at South Gate + car parking;
- Two additional bases for car rental operators – 'Car Rental Sites 5 and 6'.

3.1.3 The ES's surface access predictions also assume that various road works – new bypasses, widening, dualling etc. – will take place. The ES makes no predictions for the year 2023 that do not involve at least 14 road works.[3]

3.1.4 Clearly the proposed development is inextricably linked to a wide range of other projects. If permission is given for the proposed development, then this implicitly also supports all of the extra projects, which themselves are likely to have additional significant impacts

Although several of these projects are likely to require environmental impact assessment themselves – including additional projects that have been granted reserved matters approval – this drip-feed of ESs for individual projects would not adequately describe the sum of the projects' impacts: this is discussed in the next two sections.

## 3.2 Future plans for Stansted Airport are unclear

3.2.1 The Generation 1 ES suggests that the area will be subject to rapid, incremental growth with no clear end-point, and no comprehensive and transparent future plan for dealing with the impacts of that growth. Although the ES consistently makes predictions for 35 million passengers per annum (mppa), in fact the proposed development is for 264,000 air transport movements (ATM) plus 10,000 non-commercial movements. This

[1] CD/4, para 1.1.6, 1.1.8.
[2] CD/4 para 7.3 and App. A4; CD/12, Fig. 2; CD/14, App. A.
[3] CD/12, para 10.3.4, 10.3.6.

represents *'some 35mppa'* [4]and, with a different mix of aircraft, could represent '*approximately 37.5mppa*' (para 1.1.16). The ES includes a scenario of 40mppa '*to demonstrate that replacing the current 25mppa conditions with a new passenger limit is not necessary*' (para 1.1.18), although it considers this to be '*well in excess of that considered reasonably possible*' (para 1.1.17).

3.2.2 However, with growing aircraft sizes[5], it is not unreasonable to assume that 264,000 ATMs could, in time, easily represent more than 40mppa, possibly nearer 50mppa. The ES includes a 40mppa scenario, but not one of 45 or 50mppa.

3.2.3 ATMs are important because they determine the amount of impact from *flights*, e.g. noise and air pollution etc. from aircraft. Mppas are important because they affect the impact from *ground activities*, notably surface access but also waste, energy use etc.

3.2.4 The timescales and scenarios the ES covers are:

- the current baseline at 2003 or 2004, with some reference to 1999
- '15mppa+', which actually means 25mppa or 241,000 ATM
- '25mppa': 25mppa in 2014, equating to roughly 190,000 ATMs + cargo flights
- '35mppa' in 2014, which actually means 264,000 ATMs handling 'some 35mppa' + cargo flights
- 'fleet mix sensitivity', namely 264,000 ATMs in 2014 handling 'approximately 37.5mppa' + cargo flights
- '40mppa', namely 264,000 ATMs (including cargo flights) and 40mppa
- implicit reference to Generation 2.

3.2.5 The confusing wording – '15mppa+' actually means 25mppa, '35mppa' actually means up to 50mppa – is notable. Also notable is the consistent reference to the 40mppa scenario not really being much worse than the 35mppa scenario, which in turn is sometimes even better than the '15mppa+' scenario. All of this suggests that the current proposal may be '35mppa' in name, but is likely to be much more than this in practice. Furthermore, the ES notes that the proposed project would make 'better use of the runway' [6], whereas the Air Transport White Paper[7] supports 'full use of the existing runway' (our underlining). This suggests that yet further proposals could be put in for more ATMs.

3.2.6 The ES does not clarify why it uses 2014 as an end-point, and 2014 is illogical in light of possible plans for a second runway for Stansted. Essex County Council noted that:

> *'This salami slicing of consultation and impact analysis of Stansted growth makes it extremely difficult to identify and plan for the major implications that any growth at Stansted would have. BAA is presenting a description of the Airport in 2015 but this is not the position they*

[4] CD/4, para 1.1.13.
[5] for instance, the new Airbus A380 jets (the first is to be delivered in 2007) takes up to 840 passengers compared to a Boeing 747's 568 maximum passengers.
[6] CD/4, para 1.1.5.
[7] Department for Transport (2003) Air Transport White Paper, *The Future of Air Transport,* http://www.dft.gov.uk/about/strategy/whitepapers/air/ [CD/87].

*expect to be extant in 2015, since the second runway should in theory be operational by then.'*[8]

3.2.7 By not looking at what full use of the runway implies, nor at longer timescales**,** the ES is part of a continuing drip-feed of proposals and impacts: none on their own seems overly onerous, but the sum total is one of significant cumulative impacts.

### 3.3 The ES does not adequately assess cumulative impacts

3.3.1 Schedule 4 of the Town and Country Planning (EIA) Regulations [CD/309] require an assessment of the development's 'direct effects and any indirect, secondary, cumulative ... effects' (our underlining). Cumulative impacts are

*'impacts on the environment that result from incremental changes to environmental parameters when added to changes brought about by other past, present or reasonably foreseeable actions*'[9].

Cumulative impact assessment thus focuses on the impacts of multiple activities, including past activities and the proposed project, on specific receptors (or environmental parameters)[10].

Although each chapter of the Generation 1 ES includes a section called 'cumulative and interactive effects', these focus on the impacts of the proposed airport development plus only a very limited number of other activities - three housing projects near the airport; in some cases the standby runway; and in some cases the impact of increasing traffic growth[11]. They do not focus on past activities, underlying trends, likely changes as a result of the Government's Sustainable Communities plan etc.

[8] Essex County Council, report to Planning, Environment & Commerce Policy Development Group, 13 October 2005 [CD/275].
[9] Ibid, footnote 1.
[10] As opposed to the impacts of a specific project on multiple receptors/environmental components, which is the main focus of EIA.
[11] For instance:

- Air quality: *"The modelling results... already include any additional road traffic that might arise from the three [housing] developments... The operation of the standby runway, when completed, would have little, or no effect on the concentration estimates given in this volume*" [CD/6, para 11.1.1-2].
- Energy: "*Consideration has been given to the committed developments in the vicinity of the airport... In conjunction with the utility suppliers, it is concluded that there is currently adequate available allowances from local suppliers...*" [CD/10, para 11.1.1].

Cumulative impacts of different aspects of the proposal

3.3.2 The ES rarely presents the total impacts of the proposed development. Instead, it typically splits up impacts and leaves the reader to add them up. For instance:

3.3.3 The ES splits air noise [CD/5]) from ground noise [CD/11] and never discusses the cumulative impact of air plus ground noise. Even the respective chapters' sections on cumulative impacts do not address the other form of noise. In full, these sections read:

- Air noise: '*There are no developments in the local area that would have an air noise impact and therefore there are no cumulative effects'* ;[12]
- Ground noise: *'There are a number of committed residential developments in the area surrounding the airport that have been taken into account in the road traffic models referred to in paras 10.2.1 and 10.2.2 above'* .[13]

3.3.4 However it is the sum of both, plus underlying trends (e.g. increasing noise from increasing baseline / non-airport traffic) that matters to receivers. The ES notes that '*No areas or populations are exposed to [air] noise level increases greater than 2dB*' between the 25mppa and 35mppa scenarios[14]. Given that ground noise levels will increase by more than 10dB(A) at some properties, this statement is clearly incorrect when considering cumulative impacts.

3.3.5 The ES does not clearly state what the total traffic levels on roads near the airport are now, nor does it predict total traffic levels (including underlying rises in traffic) in 2014 or 2023. It does not discuss whether there will be an overlap of traffic from construction and operational activities: operational traffic is discussed at CD/14 and construction traffic at CD/18. The ES even splits construction traffic into vehicle-movements by construction workers (550 per day at peak[15]) and HGVs (224 per day at peak[16]), without giving the total of the two.

3.3.6 The ES does not predict climate change impacts from flights plus ground operations. It does not state the total land take from all the proposed projects.

Cumulative impacts with underlying trends

3.3.7 In addition to the drip-feed of airport development is the planned development of the wider London-Stansted-Cambridge Growth Area as part of the Government's Sustainable Communities Programme. What this means in detailed spatial terms is not yet clear, in part due to uncertainties about the East of England Regional Spatial Strategy (RSS),

[12] CD/5, para 12.1.1.
[13] CD/11, para 11.1.1.
[14] CD/5, para10.2.18.
[15] CD/18 Table 2.
[16] CD/18 Table 3.

but what is clear is that the 'without development' baseline in 2014 is already one of:

- more housing: for instance, the Government Office for the East of England's proposed changes to the draft RSS[17] would see 430 new homes built every year in Uttlesford District Council (6380 by 2021); and 660 per year in East Hertfordshire (9,860 by 2021);
- more people: for instance, BAA assumes a 17% increase in households[18] (12% increase in population) in Cambridgeshire to 2015; and a 10% increase in households (7% increase in population) in Hertfordshire;
- more traffic: base traffic is expected to increase by 24-32% between 2003 and 2014[19] even without the proposed development
- increased pressure on resources: for instance, Three Valleys Water had a drought order in place from 3 April 2006 until 18 January 2007; additional housing proposed for the region would exacerbate demands on water; and the airport development would come on top of this;
- more climate change, with attendant flooding, droughts, extreme weather events etc.

3.3.8 However, several key chapters in the ES do not assume such growth and therefore do not adequately describe the 'without development' situation. For instance:

- CD/6 on air pollution distinguishes between 'background' air pollution concentrations, those caused by non-airport roads, and airport-related pollution. It assumes that background levels and non-airport road pollution will be the same in 2014 (Table 23) as in 2003 (Table 17) which is extremely unlikely given the trends described in CD/14.
- Neither CD/5 on air noise nor CD/11 on ground noise acknowledges that, by 2014, there are likely to be more residents in the area, and hence more residents 1. generating noise (e.g. by driving) and 2. potentially affected by noise from the airport.

<u>Cumulative impacts from baseline to 35mppa</u>

3.3.9 By far the easiest way to understand the impacts of a proposed development is to compare them against the current situation, for instance 'will noise be significantly louder than at present? Will it look much different than it does now?'

3.3.10 As requested in Uttlesford District Council's scoping opinion [CD/24], and in line with general guidance on EIA, the Generation 1 ES focuses on comparing the proposed development against the future 'no development' situation, namely the 25mppa scenario. But Stansted is unique in the rapidity of its baseline growth, which may further change if permission is

[17] Government Office for the East of England (December 2006) East of England Plan: The Secretary of State's Proposed Changes to the Draft Revision to the Regional Spatial Strategy for the East of England and Statement of Reasons [CD/76].
http://www.gos.gov.uk/goee/docs/193657/193668/ProposedChanges.pdf [CD/76].
[18] CD/14, App. I.
[19] CD/14, App. I, para 10.4.2.

given for a second runway. The ES provides much useful data about the baseline situation in 2003/4, but in its welter of scenarios, and its emphasis on comparing the 25mppa and 35mppa scenarios, it does not give a clear feeling of how the proposed development compares with the situation *now*, much less how it compared against the situation in (say) 1999 with 9.4mppa, or how a 45mppa scenario could compare against today's situation.

3.3.11 Table 1 summarises just some of the changes predicted to occur in the eleven years between the 2003/4 baseline and the 35mppa scenario, and compares them with the changes predicted for the main scenario (25mppa to 35mppa). Several of the changes – energy, ground noise, land take, waste, water - are noticeably larger for 2003/4-to-35mppa, than for 25mppa-to-35mppa. Focusing on the change from 25mppa-to-35mppa does not fully reflect this impact.

3.3.12 Given that the ES splits some impacts (e.g. noise, traffic) without bringing them together again; that it does not seem to consider underlying trends in some key chapters; and that it does not present the total impacts of the proposed development in comparison with today's situation, it does not adequately discuss cumulative impacts. As such, the ES is likely to under-estimate the cumulative impacts of the proposed development.

**Table 1 Examples of cumulative impacts of Stansted development, 2003/4 to 35mppa**

| Impact | A. Difference in impacts between 25mppa and 35mppa scenario | B. Difference in impacts between 2003/4 and 35 mppa scenario | Comments |
|---|---|---|---|
| Energy use [CD/10, Tables 3 and 4] | 14% more electricity use<br>15% more natural gas use<br>Greater increase if 264,000 ATM leads to >35mppa. | 45% more electricity use<br>87% more natural gas use<br>Greater increase if 264,000 ATM leads to >35mppa. | B is more than 3 times as large as A |
| Ground noise [CD/11, Tables 5 and 6] | Westerly operation<br>Tye Green 0.9/1.4/-0.5<br>Gaunts End 1.1/1.6/-0.1<br>Molehill Green 7.3/8.5/6.3<br>Coopers Villas 0.2/0.8/-0.3<br>Takeley Street 0.9/1.1/1.0<br>Burton End -0.5/-0.6/-1.9<br><br>Easterly operation<br>Tye Green 0.9/1.3/0.5<br>Gaunts End 2.1/2.7/1.8<br>Molehill Green 7.3/8.3/6.1<br>Coopers Villas 0.1/0.9/-0.3<br>Takeley Street 4.7/5.1/1.3<br>Burton End -0.3/-0.4/-2.0 | Westerly operation<br>Tye Green 6.6/4.4/3.1<br>Gaunts End 11.0/8.4/8.0<br>Molehill Green 2.5/2.9/5.7<br>Coopers Villas 1.9/3.5/5.8<br>Takeley Street -/3.4/5.3<br>Burton End 9.5/9.2/10.0<br><br>Easterly operation<br>Tye Green 6.8/2.4/4.3<br>Gaunts End 9.0/7.2/10.5<br>Molehill Green 9.2/11.7/21.7<br>Coopers Villas 6.5/7.8/8.9<br>Takeley Street 2.4/4.3/3.6<br>Burton End 7.7/4.8/8.8 | B is much larger than A |
| | A change of 3dB(A) is perceptible. It represents a doubling of the sound energy level. A change of 10dB(A) typically feels like a doubling of noise levels.<br>Key: <3dB(A), 3-5.9dB(A), 6-9.9dB(A), 10-19.9DB(A), >20dB(A) | | |
| Surface access [CD/14, Table 8.15;] [CD/18, Sec. 5.7] | 24-32% increase in baseline traffic levels, plus increase in operational airport traffic of more than 21% (an additional 13016 vehicle movements per day), plus construction traffic would be additional to this | As in 25mppa-35mppa scenario, plus any increase in airport traffic levels between 2003/4 and 25mppa scenario (not provided in the ES). | B is slightly larger than A |
| Land take [CD/4, App. A4] | Land take is not covered in the ES, nor are surface areas given for the proposed new developments. However: | | B is twice as large as A |
| | The development proposed for 25mppa-35mppa [CD/4, App. A4 (green area)] would take up roughly 10% as much land again as Stansted Airport takes up so far, and roughly 20% of the remaining undeveloped land within the airport boundary. | The development proposed for 2003/4-35mppa [CD/4 App. A4, (area in green + blue) would take up roughly 20% as much land again as Stansted Airport takes up so far, and roughly 40% of the remaining undeveloped land within the airport boundary | |
| Waste [CD/16, Tables 1, 6, 7] | 27% increase in total waste produced (2189 tonnes more). Greater increase if 264,000 ATM leads to >35mppa. | 73% increase in total waste produced (4388 tonnes more). Greater increase if 264,000 ATM leads to >35mppa | B is almost 3 times as large as A |

| Impact | A. Difference in impacts between 25mppa and 35mppa scenario | B. Difference in impacts between 2003/4 and 35 mppa scenario | Comments |
|---|---|---|---|
| Water [CD/17, Table 3] | 40% increase in water use (0.81 megalitres/day). Greater increase if 264,000 ATM leads to >35mppa. | 67% increase in water use (1.14 megalitres/day). Greater increase if 264,000 ATM leads to >35mppa. | B is significantly larger than A |

# 4 IDENTIFICATION AND MITIGATION OF SIGNIFICANT IMPACTS

## 4.1 The ES does not clearly identify some significant impacts

4.1.1 Schedule 4 of the Town and Country Planning (EIA) Regulations [CD/309] requires an assessment of 'the likely significant effects of the development on the environment'.

4.1.2 There is no formally agreed definition of impact significance, but it is typically interpreted as comprising a combination of 1. magnitude of the impact and 2. sensitivity of the receiving environment[20]. For instance, European Commission guidance on impact significance[21] suggests questions such as 'Will there be a large change in environmental conditions? Will many people be affected? Is there a risk that environmental standards will be breached?'

4.1.3 The Generation 1 ES is carefully worded, but not in a way that allows easy identification of impact significance. It stresses those impacts where conditions imposed as part of the 2003 planning permission would not be exceeded under a 35mppa scenario; it compares the 25mppa and the 35mppa situations; it presents data as percentages or as totals, but not necessarily as both; and it provides a carefully edited analysis of significance. Table 2 and Box A show examples where the ES conclusions about impact significance arguably do not fully reflect the data about the impacts.

4.1.4 Instead, the ES gives considerable space to topics that are of minor significance. For instance:

- employment effects ('positive' effect but regional economy is already overheated): 7 pages in CD/4, plus 45 pages of appendix;
- energy effects (minor compared with other impacts): 5 pages in CD/4, plus 21 pages of appendix;

compared with its analysis of very significant effects:

- air noise (top concern during consultation): 9 pages in CD/4, plus 43 pages of appendix;

[20] Glasson, J., R. Therivel and A. Chadwick (2005) Introduction to Environmental Impact Assessment, 3rd edition, Routledge, London, p128 [SSE/2/c Appendix 2].
[21] European Commission (2001) 'Checklist of criteria for evaluating the significance of impacts', p34 of Guidance on EIA: Scoping, http://ec.europa.eu/environment/eia/eia-guidelines/g-scoping-full-text.pdf [SSE/2/c Appendix 3].

- climate change (third highest concern during consultation): 4.5 pages in CD/4, no appendix.

4.1.5 As such, the ES seems to 1. understate some significant impacts by comparing them to the '15mppa+' scenario, careful use of words (e.g. 20dB(A) noise increase is 'moderate'), and questionable use of assumptions; and 2. lose them amongst additional information about impacts that are not significant.

**Table 2 ES data about impacts v. conclusions about impacts**

| Issue | Data about the issue (see also Table 1) | ES conclusion about the issue |
|---|---|---|
| Air noise | Even under the 25mppa scenario, 2300 people will experience weighted average sound levels of 57dB(A) just from flying aircraft, equivalent to a noisy business office operating outside their house. Up to 50 people will experience >72dB(A) just from flying aircraft, equivalent to street-corner traffic. This would be worse, with more people affected, under the 35mppa and 40mppa scenarios. Ground noise is additional to this. | 'the calculated area of the 57 dB LAeq contour is not predicted to exceed the noise contour 'cap' set out in planning condition AN1 of the 2003 planning permission...' [CD/4, para 10.1.45]. |
| Air quality | Air quality is already a problem in some parts of Uttlesford District Council; these will be made worse by underlying trends; and increased use of the runway will add further to this problem (see Box A). | 'concentrations of all pollutants are marginally higher in the 35mppa [than the 25mppa] case... In both cases the Government's annual mean $NO_2$, particulate matter, benzene and 1,3 butadiene objectives would not be exceeded beyond the airfield and apron areas' [CD/4, para 10.2.72-73]. |
| Ground noise | Compared to the current situation, Tye Green and Takeley Street will have noticeable (>3dB(A)) increases in ground noise at almost all times Coopers Villas, Burton End and Gaunt's End will have noticeable increases in ground noise at almost all times, with up to a doubling of perceived noise (>10dB(A)) at times. With westerly operations, Molehill Green will have minor noise increases, but with easterly operations it will receive a doubling of perceived noise during the day and evening, and a very significant increase at night (>20dB(A), from virtual silence to the equivalent of a business office noise level). This does not include increases in air noise [CD/11, Tables 5 and 6]. | 'moderate adverse impacts at Tye Green (westerly daytime), Gaunts End (westerly daytime and evening and easterly night-time) and Molehill Green (westerly and easterly night-time). Minor adverse impacts are shown only at Molehill Green (easterly daytime and evening).' [CD/11, para 10.1.18]. |
| Nature | 'Large area of grassland lost [at Northside | 'Assuming mitigation and |

| Issue | Data about the issue (see also Table 1) | ES conclusion about the issue |
|---|---|---|
| conser-vation | Long Stay Car Parking Phase 5], including breeding habitat for BAP species, inter-relationship between planting and grass-land lost... Loss of richer grassland [at South Gate Hotel West], part of mosaic, loss of BAP habitat and species... Fairly rich grasslands lost [at Bassingbourn Roundabout Grade Separation], breeding site for skylark (BAP) lost, feeding area for starling lost... Ditch with BAP species and good common fleabane population, small areas of other habitat lost [at Yankee Stands South]... [At Zone G Car Park, loss of] major part of local habitat mosaic, BAP and Red listed breeding birds, fairly rich habitat' [CD/13, Table 19]. | compensation is carried out... the overall effect of the 35mppa case would mostly be of a minor or negligible level of significance on the habitats and species. Moderate adverse impacts would arise in relation to the development of the Zone G and South Gate West Hotel site... The only residual effect would be that on the density of the habitat network' [CD/4, para 10.9.25]. |
| Surface access | Several roads and roundabouts near the airport would already be close to or over capacity (≥RFC 1.00) for parts of the day under the 25mppa scenario, worse under the other scenarios:<br>• A120/A1250 roundabout (RFC 1.13-1.16 on A1250 side at pm peak)<br>• A120/B1383 roundabout (RFC 1.21-1.23 on east side and 1.09 on west side at am peak; RFC 1.09-1.10 on east side and 1.32-1.33 on west side at pm peak)<br>• M11 J8 link to A120 west (RFC 0.97-98 at am and pm peak) [CD/14, App. S]. | 'Analysis of conditions on strategic roads in the vicinity of the airport indicate a number of locations where growth in non-airport related traffic would create difficulties at some critical junctions in the network... There is no material difference in peak hour traffic conditions between the 25mppa, 35mppa, 35mppa (enhanced) cases or the 40mppa Sensitivity Test on either the local or strategic road network... ' [CD/4, para 10.10.81, 10.10.86]. |
| | CD/14, Table 4.4 suggests that current/ 2004 peak traffic is from 05:00 to 06:00 (2182; compared to 1825 between 07:00 and 08:00) and from 18:00 to 19:00 (2913, compared to 2456 from 17:00 to 18:00). The 'peak hours' used for the ES impact predictions [CD/14, para 5.8.13] are 08:00-09:00 and 17:00-18:00, not the baseline peak times. The ES does not allow an analysis of traffic flows at 05:00-06:00 or 18:00-19:00: CD/14 Table 6.3 shows peak periods for employees arriving and leaving, but does not show times before 07:00 or after 18:59. Appendices Q and R do not specify what peak time they use. As such, it is not possible to get an accurate picture of what 'peak hour' traffic from the airport really would be.<br><br>The 35mppa (enhanced) scenario | 'road traffic movements to and from the airport have decreased from about 2,800 to 2,300 two-way trips in the AM peak hour (0800-0900) between 1999 and 2004 whereas the airport has grown from 9.5mppa/8,700 employees to 20.9mppa/ 10,300 employees in this period' [CD/14, para 5.8.13].<br><br>'The difference between the 35mppa (enhanced) case and 25mppa case forecasts are generally less than 3% on all the main roads serving the airport... [There are] a number of locations where growth in non-airport related traffic would create difficulties at some critical junctions in the network... the |

| Issue | Data about the issue (see also Table 1) | ES conclusion about the issue |
|---|---|---|
| | assumes many more traffic works than the 35mppa scenario. | Highways Agency and the Regional Assembly are reviewing issues which arise from the growth in regional demand. The impact of airport growth from 25mpp to 35mppa or 40mppa on local roads is not material' [CD/4, para 10.10.80-82). |

**Box A. $NO_2$ as an example of how significant impacts are not fully addressed in the Generation 1 ES**

The air quality chapter [CD/6] is a good example of a chapter in the ES that starts with an existing problem – air quality in some parts of Uttlesford District Council (UDC) already exceeds legal standards (see Table A.1) – and concludes that the proposed development will not have a significant impact: '*$NO_2$, particulate matter, benzene and 1,3-butadiene objectives would not be exceeded beyond the airfield and apron areas'* [CD/4, 1, para 10.2.73]. This box tries to untangle some of the reasons for this disconnect, and thus the non-identification of a significant impact. It focuses on one of the key air pollutants, $NO_2$ (nitrogen dioxide).

Table A.1. $NO_2$ diffusion tube concentrations within UDC [CD/81 Table 6]

| Monitoring point[2] | | 2002 | 2003 | 2004 | 2005 (UDC[2]) |
|---|---|---|---|---|---|
| UTT6 | Norman Court, Stansted | 20.5 | 18.4 | 19.3 | 20.2 |
| UTT9 | Burton End, Stansted | 36.7 | 38.4 | 41.5 | 45.9 |
| UTT11 | A120 Start Hill | | 49.7 | 38.3 | 38.3 |
| UTT12 | A120 Takeley Street | | 48.4 | 29.6 | 34.9 |
| UTT13 | A120 Takeley Four Ashes | | 39.5 | 25.3 | 25.9 |
| UTT14 | A120 Stortford Road | | 39.5 | 39.6 | 29.7 |
| UTT2 | Airport 1 | | | 28.6 | 29.7 |
| UTT7 | Airport 2 | | | 28.0 | 29.1 |

2. Only monitoring points within about 10km of Stansted are included: the results are often even more striking when other monitoring points – particularly those in Saffron Walden - are included).

key:

| | |
|---|---|
| | 40.0-44.9 |
| Air Quality Standard for NO2 : ≤40.0 | |
| | 35.0-39.9 |
| | 30.0-34.9 |

Problem 1. Use of different monitoring/prediction sites, and much lower baseline than UDC's. First, the 2005 baseline $NO_2$ levels shown in the ES are all lower than those in the UDC's monitoring report: see Table A.2. Using the lower baseline levels in impact prediction would produce lower predicted levels, and could thus underestimate the significance of the effect.

Table A.2 NO2 diffusion tube levels 2005: UDC v. ES

| Monitoring | | 2005 | 2005 |
|---|---|---|---|
| UTT6 | Norman Court, Stansted | 20.2 | 19.7 |
| UTT9 | Burton End, Stansted | 45.9 | 42.8 |

| | | | |
|---|---|---|---|
| UTT9 | Burton End, Stansted | 45.9 | 42.8 |
| UTT11 | A120 Start Hill | 38.3 | 35.0 |
| UTT12 | A120 Takeley Street | 34.9 | 26.6 |
| UTT13 | A120 Takeley Four Ashes | 25.9 | 23.5 |
| UTT14 | A120 Stortford Road | 29.7 | 27.1 |
| UTT2 | Airport 1 | 29.7 | 28.1 |
| UTT7 | Airport 2 | 29.1 | 27.5 |

1. see note 1 at Table A.1; 2 [CD/6, Table 7].

Second, although the ES begins with this information [CD/6 Table 7], its predictions are based on monitoring data from very different sites [Tables 23 and 24]. Even where there is a partial match between UDC's monitoring points and those shown in the ES (e.g. A120 Start Hill v. Tilekiln Green), the ES data are consistently much lower than UDC's: see Table A.3 below. We understand that at least some of these discrepancies can be attributed to part of the A120 having been moved closer to the airport. But again, use of the ES data would suggest that the development would have smaller impacts than use of the UDC data.

Table A.3. Annual mean $NO_2$ concentrations, UDC v. ES

| UDC monitoring point | UDC monitoring point location | UDC monitored $NO_2$ level, 2003/4 | Nearest comparable ES monitoring point [CD/6 Tables 19 & 23) | $NO_2$ total[1] in ES, 2003 |
|---|---|---|---|---|
| UTT6 | Norman Court, Stansted | 18.4 (2003) | ? | |
| UTT9 | Burton End, Stansted | 38.4 (2003) | Burton End | 17.4 |
| UTT11 | A120 Start Hill | 39.0 (2004) | Tilekiln Green | 19.5 |
| UTT12 | A120 Takeley Street | 30.2 (2004) | Thremhall Farm | 19.9 |
| UTT13 | A120 Takeley Four Ashes | 25.8 (2004) | (Old House Farm) | 18.6 |
| UTT14 | A120 Stortford Road | 40.3 (2004) | ? | |
| UTT2 | Airport 1 | 29.1 (2004) | ? | |
| UTT7 | Airport 2 | 28.5 (2004) | ? | |

1. CD/6, Table 23 shows 25mppa scenario for $NO_x$ and $NO_2$. CD/6, Table 19 shows 2003 baseline $NO_x$ (but not $NO_2$) levels. These are the same as the 25mppa $NO_x$ levels shown in Table 23. As such, we assume that the 2003 baseline $NO_2$ levels are also the same as those shown at Table 23.

Problem 2: Strange interpretation of data. Table A.1 suggests that air pollution is already a problem in UDC. Yet the ES analysis concludes that air quality is 'generally good': '*Drawing on all this monitoring information it is reasonable to conclude that air quality in the vicinity of Stansted Airport is generally good. In parts of the urban areas close to Stansted Airport and other areas close to the M11 and A120 air quality does, however, deteriorate as it is influenced by significant road traffic emissions'* [CD/4, para 10.2.33]. This wording seems to misrepresent conditions in UDC.

**Box A cont.**

Problem 3. No consideration of other developments and trends. CD/6 Table 23 (25mppa) suggests that the same baseline NOx levels will exist in 2014 as those in 2003 (ES [CD/6 Tables 19]. In other words, the ES seems to assume that baseline $NO_x$ levels will not increase between 2003 and 2014, despite the predictions of CD/14 that traffic will increase by 24-32% in the East of England Region between 2003 and 2014. It is extremely unlikely that baseline NOx levels will not get worse between 2003 and 2014, as suggested in the ES. The ES's assumption about (the lack of) background growth in air pollution is likely to underestimate the proposal's future impacts vis-à-vis air quality standards.

Problem 4. Use of comparison, not totals. The ES concludes about air quality that it '*is predicted to be similar in the 35mppa case to that which would arise in the 25mppa case, although as would be expected, concentrations of all pollutants are marginally higher...*' [CD/4 para 10.2.73]. This comparison of two scenarios masks the fact that both scenarios would exacerbate an already problematic situation.

This build-up of assumptions and omissions – use of slightly different data and monitoring points from UDC's, a strikingly lower baseline than that suggested by UDC monitoring, lack of consideration of likely future trends, and a focus on incremental change rather than total impacts – leads to ES conclusions that are markedly different from what one would logically assume.

### 4.2 The ES does not propose adequate mitigation for the significant impacts

4.2.1 Schedule 4 of the Town and Country Planning (EIA) Regulations [CD/309] require a description of 'the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment'.

Amount of mitigation proposed

4.2.2 Tables 1 and 2 showed that the proposed development is likely to have significant impacts. Direct impacts of the proposed development only (i.e. the change from 25mppa to 35mppa) include generation of at least 13,000 additional vehicle-movements per day; higher air pollution; much higher noise (>10dB(A) increase) at some properties and generally higher noise for at least 1,250 people; considerable land take; impacts on BAP species; significantly greater use of energy and water, and production of more than 4,000 tonnes per year of additional waste. Likely additional impacts include impacts of going beyond 35mppa to 40mppa or more; and cumulative impacts with other trends.

4.2.3 To counter this, the ES proposes only the most limited of mitigation measures, as shown at Table 3. It proposes 'business as usual' in terms of ongoing management (e.g. promotion of recycling), plus structural plantings, habitat mitigation and compensation 'where possible', insurance against roof damage, pipe enlargement and measures to help rainwater infiltration. No new mitigation is proposed for the most significant impacts – noise, air quality, surface access. None is proposed for cumulative impacts, nor for the general urbanisation and loss of tranquillity of the area. The impacts of the proposed development seem to massively outweigh the proposed mitigation.

**Table 3 Mitigation measures proposed in the Generation 1 ES**

| Topic | Mitigation proposed in the Generation 1 ES |
|---|---|
| air noise | *None*: 'No additional mitigation is therefore proposed to that already in place' [CD/5, para 13.1.1]. |
| air quality | *None*: 'There is no requirement for additional mitigation or enhancement measures as none of the statutory AQO would be exceeded as a result of the proposed development.' [CD/6, para 12.1.1]. |
| archaeology | *Nothing new*: 'It is not anticipated that any additional mitigation measures or enhancement would be required beyond adherence to the basic principle of mitigation by design and to the existing mitigation |

| Topic | Mitigation proposed in the Generation 1 ES |
|---|---|
| | measures... in the BAA Cultural Heritage policy' [CD/7, para 12.1.1]. |
| climatic factors | *None mentioned* |
| economics | *None mentioned* |
| employment | *None*: 'Given, the moderate beneficial effect, additional mitigation is not required.' [CD/9, para 11.1.1]. |
| energy | *Nothing new*: 'In addition to BAA Corporate Responsibility policy for airport development, STAL has a Sustainable Energy Management Strategy agreed with UDC. With these frameworks in place it is considered that no further mitigation measures are necessary' [CD/10, para 12.1.1]. |
| ground noise | *Nothing new*: 'STAL sets sustainability targets and an annual ground noise target has been included... no additional mitigation or controls are therefore proposed to that already in place' [CD/11, para 12.1.1]. |
| landscape | *Yes*: '...new structural planting associated with the new development sites, together with more detailed landscaping schemes within each individual plot... The impacts of additional night-time lighting would be reduced by a series of measures including the use of low lighting levels, low height columns and greater use of reflective signs to avoid the need for lighting units' [CD/12, para 16.1.6]. |
| nature conservation | *Yes, but implementation is uncertain*: 'Indicative requirements' for mitigation and compensation measures are proposed for direct impacts on individual development sites (e.g. Northside Long Stay Car Parking, South West Taxiway Extension). Some of the compensation could be accommodated within the airport boundary, but some would need to be created offsite. No explanation is given for where the offsite habitat creation would be located, and much of the mitigation (e.g. retain ditch, hedge) is 'where possible'. 'In general, mitigation measures have been agreed with STAL and incorporated into the site plans... ' [CD/13, para 12.1.2 and Table 20]. |
| surface access | *None*: 'If the DfT or the rail operator were to elect to strengthen the STEX service to a 12-car formation there will be a need to provide additional platform capacity at Stansted. There are no additional highway facilities required as a result of increasing air passenger throughput to about 35mppa.' [CD/14, para 12.7]. |
| third party risk | *None for accidents*: 'No mitigation of risks to properties in the $1 \times 10^{-5}$ zone is necessary... Mitigation of risks to road users within the $1 \times 10^{-4}$ zone would entail diversion or protection of roads by placing them in tunnel... Cost benefit analysis... indicated that the costs of such measures would not be justified by their risk-reduction benefits... there is no reason to alter this conclusion in this assessment'<br><br>*Insurance for wake vortex*: 'any damage to roofs demonstrably caused by wake vortex strike would be repaired and the roof would also be modified... to resist future damage at no cost to the property owner...' [CD/15, para 12.1]. |
| water | *None for water provision*: 'No additional mitigation measures are required to accommodate the 35mppa case. Measures to be taken by TVW [Three Valleys Water] to accommodate regional development will be put in place regardless of this development...' [CD/17, para 8.5.1].<br><br>*Pipe enlargement for foul and surface water drainage* '... would need to be carried out irrespective of permission being granted for the 35mppa |

| Topic | Mitigation proposed in the Generation 1 ES |
|---|---|
| | case. It is simply the extent of the resizing that would be increased under the 35mppa case' [CD/17, para 9.4.1 and para 10.5.1].<br><br>*Yes for groundwater impacts, but implementation is uncertain:* 'Minimise reduction of groundwater recharge by allowing rainwater infiltration where appropriate (through SUDS); Ensure adequate response systems are in place to deal with accidental spillages; and establish a groundwater monitoring system.' |

Need for step-change

4.2.4 BAA's approach of incrementally drip-feeding developments and proposing mitigation only for the incremental changes avoids the kind of large and expensive mitigation measures that may be needed if the total impacts were considered. These include:

- underground rather than surface parking to reduce landscape (and particularly nighttime lighting) impacts;
- helping to fund radically improved rail access to the airport, which would reduce surface access impacts, including air pollution and noise;
- purchase of off-site land for carbon fixing purposes; and
- techniques for reducing resource use from offsite, e.g. renewable energy production, rainwater collection.

4.2.5 If cumulative impacts were better considered in the ES – particularly the major changes arising from the 1999 (9.4mppa) baseline to the proposed 264,000 ATM (up to 50mppa) scenario – then this would suggest a need for such larger measures.

Avoidance of Quality of Life Assessment

4.2.6 One way of identifying management/mitigation measures that go beyond a drip-feed of small-scale measures is to use the Quality of Life Assessment (QoLA) approach. QoLA focuses on the *benefits and services* provided by an area (e.g. tranquillity, informal outdoor recreation, carbon fixing). Benefits 'look' different from the impacts assessed in EIA: they are related to how people value their neighbourhood, not the things that are in the neighbourhood.

4.2.7 The end-result of a QoLA exercise is a series of 'rules' for maintaining or enhancing benefits. It does not say 'you cannot build here', rather (for instance) 'you can build anything you like here, as long as you maintain the area's tranquillity, improve recreational benefits, do not increase $CO_2$ emissions'. These 'rules' could, in some cases, be more onerous than traditional EIA mitigation measures (e.g. where benefits are already scarce and a proposed development would make them more scarce); but they could also be more lenient (e.g. where benefits are already abundant, even if the proposed development would reduce them somewhat). They also promote innovation: for instance, informal outdoor recreation can be improved by adding to the recreational amenity of existing public outdoor areas (e.g. through planting, 'keep fit' trails, benches), providing new recreational areas, or linking existing areas through new/improved footpaths.

4.2.8 In its scoping opinion of November 2004 [CD/24], Uttlesford District Council requested a QoLA to be prepared for the Generation 1 ES. But CD/4, para 3.2.6 notes that:

> '*one issue raised by UDC relates to undertaking a Quality of Life... STAL considered the request but decided not to carry out such an assessment for a number of reasons.*'

4.2.9 Taking these reasons in turn: '*Firstly the application for the increased use of the existing runway is wholly contained within the existing Airport boundary and consequently there are no issues of severance affecting transport routes or the loss of community facilities*.' Severance is only one of many potential quality of life impacts of such a development. Quoting the absence of severance as a reason not to study the quality of life impacts of the development is a bit like arguing there is no need to study its economic impacts because it will not make any difference to the DVD rental market in the surrounding area.

4.2.10 '*Secondly the indicators which are commonly used for Quality of Life assessment such as economics, air quality and several others have been studied and are reported as part of this ES*.' As its name suggests, QoLA assesses the potential impact of a development on the quality of life of the people potentially affected by it. What benefits matter, and therefore what indicators may be appropriate to measure them, are identified during the process. You therefore can't say what indicators might be relevant to a QoLA assessment of a particular project until you have been through the process. This comment shows either ignorance of the process or a deliberate intention to mislead.

4.2.11 '*Finally consultation, which is part of the methodology for Quality of Life assessment, has been undertaken in a comprehensive way and the findings taken into account in this EIA*.' 'Consultation' is not a single thing. Different kinds of consultation are needed for different purposes. A consultation for EIA, however thoroughly done, is not the same thing as the consultation needed for QoLA; in particular, it is unlikely that EIA consultation would ask detailed questions about the benefits and services that residents get from their local area. Again this comment indicates ignorance or intention to mislead.

4.2.12 The absence of a QoLA analysis in the Generation 1 ES means that important mitigation measures may not be identified.

# 5 SUSTAINABILITY OF STANSTED GROWTH

## 5.1 The ES does not consider factors that affect the airport's sustainability

5.1.1 The Planning and Compulsory Purchase Act 2004 [CD/301] requires that: '*any person who... exercises any function... in relation to local development documents... must exercise the function with the objective of contributing to the achievement of sustainable development.*' (Section 39(2)).

5.1.2 In turn, the Government's sustainable development strategy[22] defines sustainable development as follows:

*'For a policy to be sustainable, it must respect <u>all five</u> of [the following] principles...*

- *Living within environmental limits: Respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and <u>remain so for future generations</u>...*
- *Using sound science responsibly: Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the <u>precautionary principle</u>) as well as public attitudes and values'* (our selection of two points, and our underlining).

5.1.3 The proposed development would lead to significant long-term impacts that would affect future generations, including climate change, reduced biodiversity (directly from land take and indirectly through air pollution impacts on Hatfield Forest, urbanisation of the landscape, loss of tranquillity and health impacts from noise and air pollution).

5.1.4 The proposed development is also based on many assumptions that may well not be borne out in the medium to long term. It faces uncertainty in terms of:

- Whether and when a carbon emissions trading scheme is implemented. Such a scheme would increase the costs of flights, particularly if carbon credits become rationed. Although the additional cost of such a scheme

[22] UK Government (2005) Securing the Future, <u>http://www.sustainable-development.gov.uk/publications/pdf/strategy/Chap%201.pdf</u> [CD/91].

would only be on the order of £1-10 per one-way journey, this could affect low-cost airlines disproportionately[23]. The European Union recently tabled a legislative proposal on emissions trading for the airline industry[24].

- Whether aircraft fuel continues to be untaxed. Kerosene is one of the few untaxed fuels in the world, and is currently zero VAT rated; the UK aviation sector was estimated to benefit from about £9 billion subsidies in 2003[25]. If aircraft fuel was taxed at the same level as petrol for cars, this would add roughly £20 -100 per journey.[26] The Commission for Integrated Transport has estimated that a 100% tax on aircraft fuel would reduce demand for air travel by 10%[27].
- Whether fuel costs will continue to remain low. Oil prices more than doubled between April 2004 and April 2006, due to rising worldwide demand and concerns about security of supply. Since then they have fallen again somewhat. However the movement of oil prices around the time of the detention on the 15 British sailors and marines, when oil prices rose and then fell again by nearly 10%, underlines the volatility of the situation. The UK became an oil importer in 2006, so these concerns will increase in time.
- Furthermore, after maximum oil extraction - 'peak oil' – is reached, oil supplies will become more difficult and costly to extract. Some commentators argue that 'peak oil' has already been reached. UK Energy Minister Malcolm Wickes has suggested that it would occur after 2030, but a recent report by the US Government Accountability Office[28] suggests that it could peak 'sometime between now and 2040' and is recommending that research should be carried out on how best to mitigate the consequences. Regardless of the exact date there will in the not too distant future be increasing competition and increasing prices for the remaining supplies[29].

5.1.5 All of these measures could impose significant new costs on airlines. Low cost airlines will be particularly vulnerable to changes in emissions trading, tax on fuel and increases in petrol costs, since such increases would

[23] House of Lords Select Committee on European Union (2006) Including the Aviation Sector in the European Union Emissions Trading Scheme, Twenty-first report, http://www.publications.parliament.uk/pa/ld200506/ldselect/ldeucom/107/10702.htm; British Airways CO2 emissions calculator, http://www.climatecare.org/britishairways/index.cfm.

[24] Commission of the European Communities (2006) Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, 2006/0304 (COD), http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006_0818en01.pdf.

[25] Aviation Environment Federation (2003) The Hidden Cost of Flying, http://www.aef.org.uk/downloads/HiddenCost.pdf [CD/253].

[26] http://www.guardian.co.uk/guardianpolitics/story/0,3605,1442235,00.html [SSE/2/c Appendix 4].

[27] The Commission for Integrated Transport (2003) Meeting External Costs in the Aviation Industry, updated Nov 2005, http://www.cfit.gov.uk/docs/2003/aec/research/11.htm SSE/2/c Appendix 5].

[28] United States Government Accountability Office (2007) Crude Oil: Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil, Report to Congressional Requesters, http://www.gao.gov/new.items/d07283.pdf.

[29] Vernon, C. and M. Wicks (2005) "Peak oil letter from UK energy minister", Energy Bulletin, http://www.energybulletin.net/15775.html [SSE/2/c Appendix 6].

account for a disproportionately high proportion of their fares. Low cost airlines currently make up 92% of flights from Stansted [CD/4, para 6.4.4], so Stansted is particularly vulnerable in this sense.

# 6 CONCLUSIONS

6.1.1 The history of Stansted Airport has been one of incremental, drip-feed growth. Environmental assessment (and the planning system) copes well with single large projects, but much less well with multiple minor alterations. The requirement for environmental statements to consider cumulative impacts (Schedule 4 of the Town and Country (Environmental Impact Assessment) Regulations 2006) [CD/309] aims to deal with this problem.

6.1.2 The ES for Stansted Generation 1 considers cumulative impacts in a limited way at best. It does not include a clear plan for future development of the airport. It is difficult to make a well-considered planning decision in this fluid, uncertain context.

6.1.3 In particular, the planning application discussed in the ES is for 264,000 ATMs, which BAA treats as being equivalent to 'some 35mppa' plus cargo flights. However, with growing aircraft sizes, it is not unreasonable to assume that 264,000 ATMs could, in time, represent 40-45mppa, and potentially up to 50mppa. Clearly, the impact of 45-50mppa would be far more serious than those at 35mppa. The ES assesses the impacts of 35mppa, with some sensitivity testing at 40mppa, but does not assess impacts at 45 or 50mppa.

6.1.4 The proposal is inextricably linked to other projects. The ES refers to these projects, but the planning application is only for increased use of the runway. Approval of the planning application and ES would imply that the linked projects would also be approved.

6.1.5 The ES does not adequately assess cumulative impacts. In particular, ground and air noise are considered separately despite having a cumulative impact on listeners; underlying traffic trends are not adequately considered; and growth in impacts over time (for instance because new residents will be moving into the area under Government growth plans) is not adequately considered. As such, the ES underestimates the proposal's impacts.

6.1.6 The ES does not clearly identify and describe some significant impacts because it compares the predicted impacts against the '15mppa+' permission (an irrelevant comparison); uses questionable baselines for some impacts; and uses very limited, careful wording when describing impact significance.

6.1.7 The ES proposes almost no mitigation despite generating some significant impacts – impacts that would be considerably more significant still under a scenario of 45-50mppa. In particular, it proposes no new mitigation for noise, air quality and surface access, which will all significantly affect local residents.

6.1.8 The ES does not consider factors that affect the airport's longer term sustainability, notably future changes in fuel costs (including, in the long term, a potential tax on aircraft fuel) and emission trading schemes.

6.1.9 The ES does not include a Quality of Life Assessment as requested by Uttlesford District Council. Quality of Life Assessment focuses on identifying and managing the quality of life of local residents, as identified by the residents. The ES suggests that the equivalent of such an assessment has been carried out, but does not document this in a transparent manner.

6.1.10 In sum, the proposed development is likely to have significant environmental impacts, particularly cumulative impacts, that are not adequately described in the environmental statement and for which adequate mitigation measures have not been proposed.