

List of questions, shortcomings and action Points identified by SSE in its response to UDC to BAA planning application UTT/0717/06/FUL

Annex C

NB: This is a summary of key points only and should not be treated as comprehensive. Note also that identified inconsistencies with national, regional and local planning planning are dealt with in Annex D and are not included here. Refer to SSE's Response dated 14 July 2006 and subsequent HIA Response dated 9 August 2006 to Application UTT/0717/06/FUL for a full account of matters raised by SSE in connection with this BAA/STAL Application.)

General	
1	Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations, 1999 requires an assessment of the development's "direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects resulting from the existence of the development, the use of natural resources and the emission of pollutants, the creation of nuisances and the elimination of waste".
2	The failure of BAA to submit a full masterplan seriously prejudices UDC's ability to consider the application and, in the absence even of projections for the airport's passenger throughput to 2021 (the planning horizon for the Regional Spatial Strategy ('RSS') and to 2030 (the planning horizon for national aviation policy), UDC is not in a position to consider the full environmental impacts over the medium and long term of removing the existing planning limit of 25mppa. The Applicant has failed to provide the information necessary for such consideration.
3	The Applicant is only presenting part of the picture. Whereas the Applicant has applied 'only' for a variation of current planning conditions, it is stated in the application that 'additional facilities which do not currently have planning permission may be brought forward in due course as the Airport continues to grow' and the Applicant lists an extensive list of such physical developments.
4	The Environmental Statement focuses on a short time horizon (to 2014) and consistently fails to consider the full cumulative impacts of maximum use of the Stansted runway and other developments that are also planned in the region.
5	The Applicant presents us with a baseline derived from exploiting the existing planning consent to the maximum limit wherever possible and then provides projections for 264,000 ATMs which are calculated and presented in such a way as to minimise the reported environmental impacts. Thus the Applicant seeks to present the narrowest possible gap between what would happen if the planning application were approved and what would happen if it were not approved. The result is that we are being presented with a false picture based on an overstated baseline and understated impacts for the development that is proposed.
6	The understatement of the scale of potential growth and consequential environmental impacts has a knock-on effect on the Sustainability Appraisal and the Health Impact Assessment, both of which are based on input data derived from the Applicant's understated environmental impact projections.
7	The Environmental Statement contains a number of errors in calculation, a number of instances where source references have, upon checking, been found to be inconsistent with the data presented by the Applicant and a number of instances where inappropriate data sources have been relied upon.
8	The Applicant places great stress on the economic and employment benefits and attempts to suggest that these benefits outweigh the demonstrable environmental cost. However, our detailed assessment demonstrates that, far from being an unmitigated benefit, the proposal would have serious detrimental effects on the local, regional and national economies.

Traffic Forecasts	
9	BAA has understated its passenger throughput forecasts by assuming that the average passengers per aircraft at Stansted will be only 5% higher in 2014 than today. This compares to a near doubling of average passengers per aircraft at Stansted over the past ten years and can also be compared to BAA forecasts of an expected increase in average passengers per aircraft of 25% at Heathrow and 15% at Gatwick over the same period. What is the justification for the dramatically lower growth rate at Stansted - especially when BAA is arguing that long haul traffic (i.e. larger aircraft) will increase very substantially at Stansted?
10	BAA has assumed that the number of cargo ATM's ('CATMs') would double (from 11,257 to 22,500) between 2004 and 2014, taking Stansted to the maximum CATMs permitted under its current planning consent. This is a surprising assumption because the number of CATMs at Stansted has been static over the past five years. However, the effect of this assumption is that it enables BAA to project a much higher 2014 baseline for the environmental impacts arising from its existing planning consent. Then, under the assumption that planning permission is granted, BAA reduces the number of CATMs in its forward projections. We can see no logical justification for the use of different assumptions. They appear to be deliberately contrived to minimise the difference in environmental impacts between the 2014 'status quo' scenario and the 2014 35mppa scenario.
Air Noise	
11	There is no separate assessment of helicopter noise despite the fact that UDC Scoping Opinion asked for this and PPG 24 (Annex 3, para 16) states "Helicopter noise has different characteristics from that from fixed wing aircraft, and is often regarded as more intrusive or more annoying by the general public. PPG 24 continues (para 17): "Planning applications for helicopter landing/take-off facilities should be accompanied by information about the proposed take-off/landing flight paths and air traffic routes where appropriate... Where such information does not accompany the application, but is considered necessary, the local planning authority should request it."
12	Provision of L _{Amax} levels for only six locations, none of which is outside the 57 dBA Leq area, is inadequate and this is exacerbated by the fact that there are no separate indicators for L _{Amax} night levels. Para 4.2.3 of the WHO's 'Guidelines for Community Noise' states: "If the noise is not continuous, L _{Amax} or SEL are used to indicate the probability of noise induced awakenings. Effects have been observed at individual L _{Amax} exposures of 45 dB or less. Consequently, it is important to limit the number of noise events with a L _{Amax} exceeding 45 dB. Therefore, the guidelines should be based on a combination of values of 30 dB LAeq,8h and 45 dB L _{Amax} ." This point is echoed by the DfT in para 8.7 of the June 2005 Night Flying Restrictions consultation, which states "research has suggested that the incidence of sleep disturbance is especially associated with the loudest noise events".
13	There are instances where the information provided is clearly inaccurate: for instance Table 16 on p29 of Vol 2 shows obvious discrepancies between (a) the two columns for numbers of households affected by noise in two different scenarios and (b) the column showing the difference between the two. Worryingly, there is no way for the reader to tell where the error lies. Even more worryingly, doubts are then raised whether other figures, where there is no tell-tale error in a 'total' or 'difference' column, might also be incorrect.
14	Similarly, there are errors in the contour maps provided. For instance Vol 1 Fig 3 and Vol 2 Fig 3 purport to be the same map (35mppa Leq 16hr) but are clearly different (see contour line near Little Hallingbury, for instance).
15	In addition, the caption for Vol 2 Fig 16 claims that it portrays a 54 dBA Leq contour, but the key on the contour itself says that it is at 57 dBA Leq; unfortunately the contents list for this Appendix (A1) throws no light on the matter, as it unhelpfully informs us that Fig 16 is for a 24 hour L _{den} map. Once again, the reader is prompted to wonder what errors might lie in the substance of the actual contours themselves.
16	Other omissions from the Appendix A4 figures are: the 2004 benchmark for L _{night} contours; the 2004 benchmark for L _{den} contours; and L _{Amax} count at six locations: figures relating to the Fleet Mix Sensitivity Test.
17	The relative lack of CDAs on approaches to Runway 05 is of extreme concern to the residents of Ware, Harlow and surrounding areas. BAA should have provided a sensitivity test to produce noise contour maps showing possible effects of the introduction of CDAs on Runway 05, including a separate map for night contours.

18	The World Health Organisation Guidelines for Community Noise state that levels above 50 dBA Leq will cause moderate annoyance. This is in direct conflict with BAA's claim in Vol 2: para 5.2.11 of the ES that the WHO supports the use of 57 dBA Leq as an indicator of the onset of annoyance. It should be noted that the UK is a signatory to the 'WHO Charter on Transport, Environment and Health' which binds signatories 'to introduce targets that take into account recommendations contained in WHO guidelines on noise' and 'keeping night-time sound levels in residential areas within WHO recommended night-time values'.
19	When addressing insulation measures, the ATWP states that "relevant airports should use 2002 noise contours as the base year". UDC should therefore insist upon BAA providing contours based on a 2002 baseline rather than a 2004 one.
20	Throughout the ES there is an attempt to minimise the effects of noise increases. For instance, in Vol 1: para 10.1.39, BAA states that "... PPG 24 considers that a change of 3 dB is the minimum perceptible under normal circumstances." This is a wilful distortion of the facts. In the above context PPG 24 is quite clearly referring to single impact events (e.g. L _{Amax}) and not to an average noise levels (e.g. Leq). A 3dB increase in Leq, far from being 'the minimum perceptible', is highly noticeable because it represents a doubling of the exposure.
Air Quality	
21	The new predictions for 25mppa and 35mppa show a steep drop in emission levels of NO _x and NO ₂ . The annual tonnage of NO _x is forecast to halve. It is difficult to account for such a steep fall in the predictions for NO _x emissions and the evidence on which it is based needs to be very carefully examined.
22	BAA has tested its proposed development only to 40mppa but the proposed development could lead to passenger throughput of up to 50mppa, with significant air quality implications both as a result of larger four-engine aircraft within the ATM limit and as a result of the additional road traffic that would be generated by arriving and departing passengers. This renders the ES inadequate and unreliable so far as the projected impact upon air quality is concerned.
23	BAA has not carried out a comprehensive air quality survey of the airport and surrounding area as required by a condition imposed with the granting of permission to expand to 25mppa. The monitoring carried out has been limited in both time and number of sites monitored. Conclusions have been drawn that require more investigation.
24	No 'real time continuous monitoring' has been carried out on either of the two sites selected for this purpose (High House and Thremhall Priory, on the airport perimeter) for the full year required to establish an annual mean. Five NO ₂ diffusion tubes are situated inside the airport. BAA accepts that neither the tube results nor the suggested errors can be regarded as reliable. No monitoring has been carried out by BAA either outside the airport or around the public areas in the airport, the terminal and the hotels. Uttlesford and East Herts District Councils' results are quoted for all areas around the airport.
25	Baseline data is lacking for locations which are considered likely to already have high NO ₂ concentrations, notably populated areas which are in the vicinity of the M11/A120 as well as the airport; for example Start Hill and Great Hallingbury have deliberately been excluded from proper baseline measurement. Whether or not the principal cause of high baseline emissions is road traffic (including airport-related road traffic) or aircraft, it is essential that reliable baseline measurements are established over a period of time for such locations. The statutory NO ₂ limits do not differentiate between the causes of the emissions and if the proposed expansion would result in the limits being exceeded - or further exceeded - this would constitute material grounds for refusing the application. Indeed, this is precisely the problem in relation to further expansion at Heathrow.
26	Only one series of tests on NO _x air measurements has been carried out in Hatfield Forest, Eastend Wood and Hales Wood (Saffron Walden) and these showed that nitrogen deposition levels were high in all three sites. BAA concluded from this that the airport is not responsible but no attempt has been made to monitor depositions or to try and distinguish between aviation and vehicle emissions.
27	The chosen fleet mix is one of the determining factors in predicting emission levels and BAA has chosen the types of aircraft to feed into its projections but has given no rationale for this choice. In addition, BAA states that emissions data for the engines concerned were obtained from QinetiQ but repeated requests to BAA for details of the QinetiQ source data have gone unanswered. NO _x emissions by aircraft/engine type are vital to predictions of future air pollution since NO _x is the main contaminant likely to exceed statutory limits.

28	ES Vol 3, Table 2 ('Key Data Sources') illustrates the point made as to how much the information used in the assessment of emission values depends on predictions made by BAA rather than upon reliable and verifiable independent sources. ES Vol 3: para 6.1.6 refers to other assumptions used in the methodology, some of which are claimed to be based on operational observations. Two reports covering some of these points are referred to in the references, numbers 12 and 13, but these have not been made available despite repeated requests. Since these assumptions form part of the basis of the predictions it is impossible to judge how valid they are unless the quoted references can be studied.
29	ES Vol 3: paras 5.2.1 and 5.2.2 describe two periods of continuous monitoring at High House for three months and seven months and another three month period at Thremhall Priory. There needs to be a comprehensive air quality survey over at least a whole year, thereby allowing for seasonality, in order to provide a reliable basis for testing the validity of the results from modelling.
30	The sensitivity test described in ES Vol 3 is as flawed as the basic forecasts. The sensitivity test uses a different fleet mix, including larger aircraft, to equate to a higher throughput of passengers but has all the same flaws as the basic modelling. The second test has already been referred to. It assesses the effect of differing ozone levels (which will vary according to a number of factors especially the weather) on the levels of NO ₂ .
31	Measurements relating to vegetation protection (especially in Hatfield Forest) have been inappropriately dismissed. ES Vol 3: para 6.1.12 states that modelled concentrations of NO _x at measuring stations have not been compared with NO _x vegetation protection limit values as they are within 5 kms of the M11 and therefore excluded by the legislation. However, Hatfield Forest is an SSSI and one of the few European ancient woodlands. Even BAA admits (ES Vol 10 para 10.4.4) that 'Notwithstanding this exclusion the concentration is still relevant to the assessment of possible ecological effects within the context of the environmental assessment'. This in fact does no more than reflect the Government's latest position on protection for SSSIs, even those within 5km of a major trunk road. The likelihood of damage to Hatfield Forest from increased NO _x emissions constitutes material grounds for refusing permission for further expansion.
32	The reliance on subjective assumptions crucial to the modelling and to the ultimate emissions levels introduces the possibility of a significant margin of error in the predictions of emissions levels which could lead to breaches of the Air Quality Directive 1999/30/EC and UK Air Quality (England) Regulations 2000 in respect of the limit values of NO _x over Hatfield Forest.
34	BAA's own predictions show that limit values for PM ₁₀ would be breached in some locations in 2014. BAA deals with this by speculating that the EU Air Quality Directive limit value for PM ₁₀ of an annual mean of 20 micrograms/m ³ by 2010 will be relaxed and by claiming that the background contribution would be 95% of the total and the influence of the airport would therefore be trivial. BAA cannot simply disregard an impending statutory obligation by assuming that it will be relaxed. If, as is at present required under the EU Directive, the limit value of PM ₁₀ annual mean falls in 2010 to 20 micrograms/m ³ then PM ₁₀ levels will be breached by 2014 in both the 25mppa and 35mppa cases. Also, if airport expansion would increase PM ₁₀ above the limit. it is irrelevant that the background contribution is already high. In any event, the 95% figure cannot be correct; according to Table 21 airport contributions are 18% at 25mppa and 23% at 35mppa.
35	The limit value for NO ₂ is already exceeded at Burton End. We do not accept the predictions for 25mppa and 35mppa which show a fall in NO ₂ levels and attribute these lower levels to errors in assumptions. Burton End may be near to the M11 but a proportion of the NO ₂ pollution will be airport-related. Other near motorway levels measured by diffusion tubes at Newport, Wicken Lane, and Goose Lane Little Hallingbury are now below the limit value. Further monitoring is needed to clarify the amount of airport-related pollution, especially in residential areas.
Economic Impacts	
36	Economic impacts are an important planning consideration in assessing whether a development proposal would contribute towards the objective of achieving sustainable development. In assessing these impacts there is a requirement to 'use sound science responsibly' - one of the five principles of the Government's sustainable development strategy. This means that there should be a robust and credible evidence base for any claimed benefits. In this case, however, very few of the claimed benefits set down in BAA's economics ES (Vol 5) are supported by sound economic science or by any proper evidence. This is a major failing.
37	The economic impact statement submitted by BAA takes no account of the potential for additional capacity at Heathrow, with the exception of the Terminal 5 development.

38	Table 5 in BAA's economics ES projects that the proportion of passengers using Stansted Airport who are travelling to/from the East of England Region will increase from 30% in 2004 to 32% in 2014. This would require a reversal of the trend over recent years whereby the proportion of Stansted's passengers coming to/from the East of England Region has been steadily declining. There is no explanation as to why such a reversal should take place.
39	Table 5 in BAA's economics ES also projects that the number of UK business passengers will almost double and the number of overseas tourists visiting the region will increase by more than 50%. Again, these projections represent a reversal of the trend over recent years and there is no explanation as to why such a reversal should take place.
40	CAA data for the past three years shows a relative decline in local use of Stansted - i.e. the proportion of passengers travelling to/from the East of England Region and a decline in business use of Stansted. If BAA's projections are to have any credibility, an explanation is needed as to why it has assumed that these recent trends will be so decisively reversed.
41	We are also unable to reconcile the baseline numbers quoted by BAA with the official CAA passenger statistics. BAA quotes 17.7m total terminating passengers at Stansted in 2004 whereas the CAA statistics show 18.3m.
42	The information sources that should be used are the official CAA airport traffic statistics including its annual passenger survey report, and MQ6 Tourism and Travel statistics published by the Office of National Statistics ('ONS'). It is not satisfactory to rely upon projections that emerge from BAA's consultants doing non-transparent analysis on BAA's own data.
43	Also, incredible as it may seem, BAA makes the fundamental error of double counting foreign tourists - i.e. a failure to recognise that the 872,000 foreign tourists who travelled via Stansted Airport to/from the East of England in 2004 consisted of 436,000 return journeys. BAA relies on this completely erroneous data in its assessment of the economic benefits.
44	BAA has ignored the negative economic effect of 8.3m outbound leisure tourists travelling to overseas destinations from Stansted (35mppa scenario, 2014).
45	The onus is upon BAA to attempt to demonstrate, based on sound science and a robust and credible evidence base, that there would be net economic benefits from expansion to full use of the runway.
46	If Stansted were to expand as proposed by BAA, its contribution to regional GVA would increase to about £700m a year. However, this contribution takes no account of the outflow from the UK and East of England economies arising from Stansted's focus on outbound leisure trips. We estimate that this would increase by £1.8bn nationally and £1.2bn regionally if the application were to be approved.
47	The impact upon communities in the East of England Region which rely heavily upon tourism - rural and coastal communities in particular - needs to be thoroughly researched and assessed. Alternative employment opportunities are often limited in such communities and it would be perverse to create additional jobs at Stansted which had the effect of destroying a higher number of jobs in communities across the region which rely heavily upon tourism. It is vital that research and analysis is carried out in this area.
48	Various academic studies (details provided in SSE response document) shows that foreign investors, when assessing an investment location, consider 'quality of life' to be at least as important, or more important than good transport links. However, BAA claims that airport expansion will encourage foreign investment - ignoring the adverse impact of reduced quality of life and ignoring also the fact that Stansted is already a substantial airport, capable of providing good air transport links to any destination in the world if the demand exists.
49	Official Land Registry statistics show that Uttlesford homeowners are paying a price for the continued rapid expansion of Stansted Airport. BAA has made no attempt to assess the further economic loss which would arise in the event of its planning application being approved. BAA simply ignores the issue.
50	The economics report provided by BAA is superficial, selective and academically flawed. Having stated at the start of the report that negative effects would be identified, it simply ignores them; not a single negative impact is acknowledged in the report.

51	We have identified a number of significant negative economic impacts which would ensue from the proposed development and in some instances we have been able to provide approximate quantifications for these impacts. However, further analysis will be needed before the full economic impacts can be properly assessed and we recommend that UDC seeks independent expert analysis in this area from recognised economic consultants.
Employment and Housing Impacts	
52	What would be the degree of dependency of the local jobs market, and thereby the local economy, upon Stansted Airport jobs?
53	To what extent would the type of additional jobs created match the skills and qualifications of the future local workforce?
54	Are there any regional employment displacement implications?
55	What would be the effect upon the local labour market in terms of availability of employees and wage pressures?
56	What would be the effect upon the local housing market, including additional local demand for new affordable housing?
57	What would be the implications for inbound employee commuting?
58	It is important to have a clear understanding of the implications of BAA's proposal as regards employee commuting and potential pressures on the need for local affordable housing.
59	It is important also to have a clearer understanding than BAA has so far provided of the quality of jobs to be created and how closely (or otherwise) these match the skills and qualifications of the local labour force. A mismatch would result in 'double commuting', i.e. skilled/highly qualified local residents commuting long distances to find suitable employment and relatively unskilled employees being recruited from far afield to fill airport jobs.
60	BAA's classification of the type of jobs to be created is opaque and significantly overstates the skills/qualifications profile of the jobs to be created. Evidence is needed from BAA to justify its dubious claim that 50% of the new airport jobs created would be in managerial, professional, technical and highly skilled occupations.
61	What would be the degree of dependency of the local (Uttlesford) jobs market, and thereby the local economy, upon Stansted Airport jobs? More specifically, how many Uttlesford residents are currently dependent (a) directly and (b) indirectly upon Stansted Airport for their livelihood; what do these numbers represent as a percentage of the Uttlesford local workforce; and what is the estimated contribution of Stansted Airport to local GVA in value and percentage terms? How would these numbers and percentages change if the planning application were to be approved and the airport were to be handling (a) 40mppa in 2014 (b) 45mppa in 2021 and (c) 50mppa in 2030?
62	Taking the 'STN Inner Area' as a whole (as defined in the BAA report): How many residents are currently dependent (a) directly and (b) indirectly upon Stansted Airport for their livelihood; what do these numbers represent as a percentage of the area's local workforce; and what is the estimated contribution of Stansted Airport to local GVA in value and percentage terms? How would these numbers and percentages change if the planning application were to be approved and the airport were to be handling (a) 40mppa in 2014 (b) 45mppa in 2021 and (c) 50mppa in 2030?
62	To what extent would the type of additional jobs created match the skills and qualifications of the future local workforce?
64	BAA has not addressed the issue of displacement impacts on the regional labour market, despite a request in UDC's Scoping Opinion to 'include a calculation of the opportunity costs of aviation development in relation to alternative economic activities foregone or displaced'. There are likely to be four main displacement impacts affecting the regional labour market: (1) the impact upon future employment at Luton Airport; (2) the impact upon regional tourism jobs; (3) discouragement of inward investment in the local area; (4) potential for displacement of other industries.
65	There is a need for independent economic analysis of these issues so as to provide UDC with robust and credible evidence on which to make a proper judgement.
66	The analysis provided by BAA's consultants in paras 10.2.7 to 10.5.4 is superficial and inadequate in a number of major respects, particularly with regard to the sub-regional labour supply and demand forecasts and the assumptions that have been made about the skills match between the local labour market and the type of jobs that would be created by airport expansion.

67	We need to see evidence-based projections in relation to future labour supply for each local authority area in the Stansted 'Inner' and 'Outer' areas and also showing the projected qualifications profile as a proxy for workforce skills. This then needs to be compared to the workforce skills profile for an expanded Stansted Airport.
68	We also need to see consistent baselines and projection timescales. The variety and quality of data sources being used does not meet the standard required for a robust and credible evidence base.
69	Appendix 2 in Vol 6 of ES includes a brief explanation of the assumptions applied to projecting the future size of the workforce but far more detail is needed in order to test the appropriateness of the assumptions. For example, what changes are assumed to take place in the average size and composition of households? We know for example, from ODPM projections that in the East of England Region the number of individuals per household is forecast to reduce from 2.37 in 2001 to 2.20 in 2016 and to 2.16 in 2021. However, it is not clear how this has been reflected in the forecasts for labour supply which appear to use a household-based approach in estimating labour supply growth in the Stansted 'Inner' and 'Outer' areas, taking account of the substantial number of new dwellings that are planned.
70	Appendix 2 states that 'There are no national forecasts of the future behaviour of rates of economic activity since those produced in 1997 by the Government'. In fact, the Office of National Statistics published 'Labour Force Projections 2006-2020' earlier this year which includes forecasts for economic activity, by age group through to 2020. Importantly, these projections show far smaller increases in the economically active population in age groups beyond age 54 than shown in the BAA analysis. The BAA analysis has assumed a major increase in the available labour market from the 54+ age group and this is not borne out by the latest Government projections. This has a significant impact upon BAA's projections.
71	The implications for the local labour market are a key consideration in this planning application and this piece of work therefore needs to be re-done by BAA's consultants or (preferably) by independent consultants on behalf of UDC at BAA's expense.
72	BAA needs to provide projections for the increase in immigrant employees in the event of its application being approved. Projections should be provided for 2014, 2021 and 2030 based on Stansted expanding to 40mppa, 45mppa and 50mppa respectively. The implications for the demand for affordable housing need to be fully considered and the precautionary principle should be applied because of the significant potential risks associated with under-provision.
73	BAA needs to provide proper quantification of the current level and mode of commuting by airport employees and projections for the future level of commuting. The ES includes only two paragraphs on the subject of commuting (Vol 6; paras 8.2.9 and 8.2.10) and these deal with total commuting to and from the study area and say nothing about employee commuting to the airport - either current or projected. Until such time as we have the necessary information in relation to employee commuting we are unable to properly assess the impacts.
Ground Noise	
74	There are no calculations for ground noise for the current level of activity, so noise comparisons for the increased usage over current conditions are not adequately provided for. This gives a distortion of the actual increase in noise since the comparisons start from a higher baseline. Furthermore, this planning application is seeking to remove the passenger limit. This could lead to 40mppa in 2014, 45mppa in 2021 and 50mppa in 2030. Noise produced by this increased level of passengers should have been included in the calculations - particularly the impact from road noise.
75	UDC asked that 'Ground noise contours be prepared for airport activity, increased surface access movements, and for a combination of both sources'. The last item is important, since noise is noise from wherever it comes. But para 3.1.2 specifically excludes the provision of combined contours saying it would be 'difficult to interpret'. This is not a relevant comment. The total increase in ground noise is the key issue to be assessed and this data must be provided.
76	Para 5.1.1 of ES Vol 8 states that the assessment methodology is restricted to 'the main sources of ground noise associated with the 25mppa and 35mppa cases'. Furthermore there is no description of the methodology that is stated as 'modelled using best practice'. This is inadequate since it does not allow assessment to be made for the total noise impact and the methodology used.
77	Vol 8: para 5.2.11 states that road traffic noise is only assessed on the basis of overall levels proportional to 35mppa and not to specific locations. This ignores the fact that the impact will give rise to specific excesses of noise at certain points along access roads.

78	Ground Power Units and other mobile equipment have been excluded from the assessment. These should be included to assess the impact of the total amount of noise.
79	Engine ground running is excluded from the assessment of ground noise. This should be included to assess the impact of the total amount of noise.
80	Rail noise is excluded from the assessment of ground noise. Longer trains will result in increased track noise and so rail noise should be included.
81	Baseline background sound levels are not provided for the 1999 and 2004 measurements. This data and the corresponding number of ATMs should be provided in order to assess the trend.
82	The origin of or authority for the claim in Vol 8: para 5.3.23 that 'The WHO guidelines...represent observation thresholds below which defined noise effects can be assumed to be less significant or unimportant' is not clear. Any reading of Chapters 3 and 4 of the WHO Guidelines certainly does not support such a claim.
83	The logic in para 5.2.24 for interpretation of planning guidance PPG 24 is questionable given that background noise levels are low in the area.
84	Paras 5.3.25 and 5.3.26 of Vol 8 describe the methodology for assessing acceptable night noise and downplay the significance of night noise because studies have had differing results. We consider the likelihood of sleep disturbance to be very high at the chosen night-time benchmark figure of 65dB LAmax. Additionally, the window attenuation figures used seem too high, even allowing for variations due to the type of window and wall design. Since assessments should be focused on windows being open, the LAmax benchmark should be 55dB.
85	Vol 8: para 5.3.27 warns that this volume of the ES uses the terms 'minor, moderate and major adverse impact' in a different sense from other parts of the ES. That is indeed the case. A level of 21.7 dBA Leq at Molehill Green above the baseline background levels is adjudged by BAA to represent a 'moderate' impact for residents even although +21 dBA represents an increase of more than one hundred fold in the sound pressure level. This whole basis for assessment lacks credibility - but of course has the desired result (from BAA's point of view) of showing no local residents to be at risk of any 'major' impact.
86	Para 6.1.2 of Vol 8 states that the assessment considers only noise from aircraft taxiing and APU noise. As commented earlier, this is not the total amount of noise and whilst the other sources are less in magnitude, the cumulative impact is what is heard by those living near the airport.
87	Figures have not been provided to support the statement in Vol 8: para 8.1.6 that 'the 2004 survey results showed lower overall or ambient sound levels compared to the 1999 survey in most areas around the airport'.
88	The summary in paras 10.1.17 and 10.1.18 of Vol 8 considers only aircraft taxiing and auxiliary power unit ('APU') sound levels. Additionally, the analysis ignores the actual level of noise for 25mppa. It makes its conclusions for the difference that 35mppa would make. Since ground noise is by definition very local, the impact must be assessed on the total amount of annoyance.
89	Figures for 2004 or present day taxiing and APU noise versus benchmarks and background noise are omitted and hence the figures that people want to know, namely for current noise versus 2014 noise, are also omitted. In that the benchmarks are considered inappropriate, the conclusions are invalid.
90	The road traffic model implies the assessment in Vol 8: para 10.2.1 comes only from the morning peak hour road traffic expected in 2014. If this is so, it is inadequate. Road traffic noise nuisance exists 24 hours a day and if, for example, there is expected to be more at night in 2014, this needs to be included in the assessment.
91	Although there may be a case for the comparison in Vol 8: para 14.1.1 of ground noise with background noise, the benchmark system does not tell people what they want to know, which is how much more ground noise will there be compared with now.
92	Peak flight departure time is from 0600 to 0900 and peak flight arrival time is from 2200 to midnight. Appendix D finds that most passengers arrive at the airport at least two hours before their flight and take around 45 minutes from landing to leave the airport. These leads and lags contribute to significant ground noise occurring from around 0400 to past midnight. No assessment is given for the impact of such a short respite period or of the forecast increase in airport-related activity all through the night.

Surface Access	
93	BAA is presenting this planning application as a proposal that would only enable Stansted to handle 35mppa in 2014 and at most 40mppa. However, if the ATM cap were removed, as requested by BAA, Stansted would be capable of handling 45mppa by 2021 and 50mppa by 2030. Projections are needed for 2021 and 2030 to show the surface access implications of 45mppa and 50mppa.
94	There should be a demonstration of how BAA's proposal will contribute to the Government's transport policy objective of 'reducing the need to travel, especially by car' [PPG13, para 4.3].
95	Rail's modal share of passenger travel to and from the airport has been declining - from 27.2% in 2001 to 25.3% in 2005. This application appears to have no ambition to reverse this.
96	The application, if approved, would result not only in increased road traffic in total terms but also an increased proportion of airport users travelling by road. The inconsistencies with relevant planning policies hardly need explaining.
97	Practically all expressions of growth focus only on the slice of growth between 25mppa and 35mppa. The baseline of 25mppa is not even an extrapolation from today, but a kind of 'worst-case' scenario if the passenger limit of 25mppa were not removed. The most frequently used 35mppa picture is the 'enhanced' one, with projected benefits from a number of potential additional public transport facilities. The Assessment does not give the full impact against the current level of activity and ignores the potential for passengers to grow beyond 40mppa.
98	BAA has made a number of questionable basic assumptions which, taken together, create a very unstable platform upon which many projections are then based. Four particular assumptions contribute to this concern.
99	The baseline of 25mppa is not an extrapolation from today, but a kind of 'worst-case' scenario if the passenger limit of 25mppa were not removed.
100	BAA focuses upon 35mppa as the maximum number of passenger movements, whereas 45mppa is likely by 2021 and 50mppa by 2030.
101	BAA projects that the number of transfer passengers will grow far more rapidly than could reasonably be expected, even allowing for greater 'connectivity'.
102	BAA asserts that the number of passengers travelling to and from London will grow far more slowly than those travelling from other areas. This is contrary to the historic trend and also conflicts with its projection that inbound foreign tourists will grow at a disproportionately fast rate. It also seems at odds with BAA's assertion that a lack of capacity at Heathrow and Gatwick will result in passengers who would otherwise use these airports 'spilling' over to Stansted. One cannot resist forming the impression that the numbers have been massaged to suit BAA's arguments.
103	The combination of these factors leads to a significant understatement of demand for surface transport between Stansted and London, both in numbers and in proportion to non-airport traffic. The effect is to divert attention away from surface transport infrastructure which is already severely stretched and will almost certainly require expensive upgrading.
104	The Surface Access assessment includes several references to on-airport facilities that are likely to be required to satisfy 35mppa (let alone 45mppa or 50mppa) and which do not yet have planning approval. Appendix A.44 refers to two additional hotels, a restaurant and an increase from four to six car rental bases, yet planning permission for these is not being sought. A.53 lists these again, together with various car park extensions, all of which would require planning permission. The status of these additional items is unclear, particularly in the absence of an airport masterplan. The application should not be considered in isolation without a clear picture of the potential ultimate scale of development.
105	The Transport Assessment focuses on 2014, yet para 2.5.18 confirms the DfT requirement is for consideration of impacts for 15 years beyond opening. Occasional 2023 figures are given but not consistently or with such explanation as 2014. For example, in Appendices Q and R, M11 airport-related traffic is shown as reducing between 2014 and 2023, but there is no explanation for this. There are no rail projections beyond 2014. The application cannot be properly considered without taking into account the consequences in the medium and long term. The 2021 regional planning horizon and the 2030 planning horizon for the ATWP are material milestones for planning purposes.

106	Forecast airport-related growth is frequently expressed as a percentage of total traffic on a particular route, usually a low percentage. However, this fails to give a true impression of the scale of impact. An increase of 3% on a quiet route is quite different to a 3% increase on a route which is close to capacity. BAA should provide analysis which expresses the increases in traffic density as a percentage of available capacity so that key impacts at the margin can be properly assessed.
107	Percentages quoted in para 6.3.6 cannot be taken at face value and, indeed, are misleading. The increase in total passengers from 20.9mppa in 2004 to 35mppa in 2014 is 67%. The 67% growth is not declared anywhere in this section and it is not easy to calculate. Within that overall 67% growth, and without visibility or explanation, a much higher rate of growth (124%) is attributed to transfer passengers, leaving 'only' an increase of 59% in non-transfer passengers (i.e. those requiring surface access to the airport). Then, within that 59% growth of surface access passengers, a higher rate of growth is attributed to travellers outside the illustrative sample of September midweek passengers, leaving 'only' 55% growth in the September midweek passengers. As if that were not enough manipulation, the growth is not expressed even as 55%, but as a 27% increase from 2004 to 2014 in the 25mppa case and a further increase of 22% in the 35mppa case. So, as if by magic, an overall passenger increase of 67% is expressed as 'a further 22% increase'. The perception of the scale of increase as given by the quoted percentages appears to be deliberately designed to mislead.
108	BAA argues there will be an acute shortage of airport capacity in the south east in 2014 - and, indeed, through to 2030 - and that this will result in demand 'spilling over' from Heathrow and Gatwick to Stansted. One would therefore expect to see, at Stansted, a disproportionately large increase in passenger traffic to and from London and the rest of the south east. However, BAA's projections show a disproportionately small increase from London and the rest of the south east. This is simply not credible.
109	Table 6.2 on page 83 contains BAA's forecasts of passenger growth from 2004 to 35mppa in 2014, analysed by place of origin or destination. There is great variation in the assumed rates of growth from different areas. This variation is contrary to the pattern of growth in recent years as reported in para 4.2.3 and Table 4.2. These assumptions have a significant impact on key surface access forecasts. The numbers of passengers on surface access routes currently under greatest stress are generally forecast to grow much less than those from areas where there is greater capacity.
110	Forecast rates of growth for the areas which would place least strain on road and rail (East Anglia at 104% and transfer passengers at 124%) seem quite inconsistent with the forecast 33% growth for central London - which would place greatest pressure on the London - Stansted rail link. Table 4.2 on page 28 shows an analysis over the past six years of passengers' surface origins and there is nothing to suggest that central London's share is about to decline. If growth in passenger demand were to be even-spread, as indicated by past trends, the 35mppa forecasts would require a further 900,000 passenger movements per annum to or from central London.
111	Paras 8.2.6 to 8.2.9 and the following Tables 8.2 to 8.5 show forecast 'Air Passenger Travel Demand' for an average September weekday for each case, analysed by hour. The sum of the three categories (cars and taxis, Stansted Express and Other PT) falls short of the daily totals in para 6.3.6 and Table 17 of Volume 16: Air Traffic Data. For example, the 2014 25mppa case in Table 8.2 gives $37,602 + 16,923 + 10,569 = 65,094$, yet the total should be 73,120 as stated in para 6.3.6. No explanation is given for this shortfall. Similarly, the 2014 35mppa case in Table 8.3 gives $46,346 + 20,169 + 13,274 = 79,789$, yet the total should be 89,540. These simple arithmetic errors cast doubt on the general reliability of forecast impacts.
112	Government transport policy is misrepresented by focusing on the public transport mode share. Specifically, para 11.9.1 refers to the Government's agenda of 'reducing the proportion of trips to the airport by car'. We note that no reference source has been cited for this assertion. In fact, Government policy is to reduce the need to travel, especially by road, and even more especially by car. Specifically in relation to airports, Government policy is 'to mitigate the undesirable impacts of road traffic to and from the airport' [our emphasis]. Public transport is supported by Government but especially non-road (i.e. rail) modes. But, above all, Government policy - and the East of England regional transport policy - is clearly focused on reducing the need to travel.
113	BAA's focus on buses and coaches is an inadequate response to the Government and East of England Region policy agenda and is an excuse to avoid long overdue investment in rail infrastructure. Rail infrastructure would cost BAA a great deal of money but investment in rail infrastructure is long overdue even on the basis of the current scale of operations at Stansted.

114	BAA should also be asked to provide data on bus and coach seat utilisation for the past five years as well as forward projections.
115	In response to the UDC Scoping Opinion, BAA agreed to look at sensitivities for the day of the week. Most assessments relate to September midweek. There is no evidence of findings related to other times of the year or week.
116	Between now and 2014, under the 25mppa scenario, instead of there being an increase in airport-related road traffic as BAA projects if its application is not approved, a proactive approach based on international best practice and in line with Government and Regional Policy (and the options set down in SSE's 'Lo-car Strategy' paper) could bring about a significant reduction in road traffic.
117	There is no review of past or future impact of airport-related passengers on West Anglia rail commuter services and no review of services when airport arrivals and departures are at their busiest. The impact of all expected influences on the demand for rail should be modelled and appropriate mitigation identified.
118	The rail capacity analysis is strictly theoretical and gives no assessment of the current timetable's robustness (or lack of it). The relevant services should be resurveyed so that reliability and levels of crowding arising from the current timetable can properly be taken into account.
119	No account is taken of the ability of Liverpool Street station, which has a small passenger concourse, to handle extra passenger numbers safely.
120	Para 9.7.10 purports to consider the effect of additional passengers passing through Tottenham Hale Station and declares that an increase in total airport activity to 35mppa would generate an increase of less than 1% in traffic on the busiest section of the Victoria Line. However, it fails to address the effect of such an increase on Tottenham Hale Station itself. Moreover, what is the impact of 45mppa and 50mppa?
121	BAA has argued that growth of Stansted Airport to 35mppa would not require any significant rail infrastructure enhancements. However, the argument contemplates only 35mppa (not full use of the runway) and no significant modal shift towards public transport. Furthermore, BAA's claims are supported by some very suspect growth apportionment between passengers' places of origin or destination and relate only to serving the airport market, without reflecting the growth in non-airport transport movements, for example the scale of housing development planned for the Stansted M11 corridor sub-region between now and 2021 and the pressures this would create on the West Anglia mainline.
121	BAA assumes that the extra road traffic is virtually all off-peak because the additional ATMs can only be accommodated during off-peak hours. However, if as BAA states elsewhere, there is to be an acute airport capacity shortage in the south east by 2014, load factors on existing peak-time flights will increase sharply over the period to 2014 and beyond. Airlines may also respond to this by using larger aircraft. BAA needs to explain the assumptions it has made for these trends and to provide a breakdown of its input modelling data.
122	Para 10.5.16 suggests prohibiting non-airport traffic from the Coopers End access. The impacts of this upon local traffic flows, and on construction traffic flows, should be clearly spelled out by BAA so that this can be fully assessed as part of this planning application.
123	The Transport Assessment focuses on the strategic road network but makes no attempt to explain how local roads would cope with the increases in passenger and employee traffic.
124	UDC should thoroughly scrutinise the input data which BAA has used for its modelling and seek advice on the whole surface access analysis and strategy presented by BAA. This should not simply relate to BAA's projections for 35mppa by 2014, but to full use of the runway, which can reasonably be projected at 45mppa by 2021 and 50mppa by 2030. Furthermore, BAA's proposals need to be assessed in conjunction with other planned developments so that aggregate and cumulative impacts are fully assessed.
Water	
125	In examining the implications of BAA's planning application for area water resources the focus should be on the 'wider picture'; i.e. what are the implications of the proposed development, including the knock-on effects, and what is the outlook on the supply side recognising that the East of England Region is the driest region in the UK (and Essex is the driest county) and that rainfall is expected to reduce significantly over the coming decades as a consequence of climate change?

126	BAA's application also needs to be considered in the context of the 505,000 proposed new homes in the East of England Region over the period from 2001 to 2021 pointed up in the Panel's report. This equates to 27,000 homes per annum to be built in the East of England Region over the next 15 years.
127	BAA should be asked to seek advice from TVW on the demand implications of the planned housing development in its area over the period to 2021 and provide this information to UDC to supplement its report on water impacts. The demand implications from planned new housing development should also be extrapolated to 2030 so that we have a longer-term assessment.
128	Similarly, as part of the big picture, BAA should seek advice from TVW and the Hadley Centre for Climate Change to identify the implications for water supply over the period to 2021 and to 2030.
129	BAA does not appear to have addressed the issue of airport-related water consumption arising from direct, indirect and induced off-airport development and BAA should also be asked to confirm that all on-site airport and airport-related activities (e.g. hotels, offices and support activities such as SR Technics etc) are included in its calculations.
130	BAA should also be asked to provide seasonality data for water demand and supply. The airport's peak demand is likely to arise during the summer period at which time water resources tend to be more stretched.
131	BAA should be asked to explain what actions it proposes to take to deal with the excess of demand over the TVW supply provision of 3.0m litres per day which is included in the TVW resource plan. Even if substantial efficiency improvements were to be achieved (and BAA is presently saying that there is no further scope for any efficiency improvement) airport water consumption would still exceed 3.0m litres per day under our 2014 projection.
132	BAA claims that 'The Airport has experienced significant improvements in water efficiency in recent years'. This may (until recently) have been true in terms of usage per passenger but the total water usage of Stansted Airport has doubled since 1999 and now stands at 14 million litres a week. More worryingly, the efficiency improvements went into reverse last year and airport water consumption increased 14% compared to only a 5% increase in passengers handled.
132	BAA projects that by 2014 airport demand will increase from 1.69m litres a day in 2004 to 2.02m litres a day if 25m passengers are handled and to 2.83m litres a day if 35m passengers are handled. However, as we show using BAA's own figures in Table 11.1 above, current airport usage is actually 1.96m litres a day.
134	Efficiency gains should be a prerequisite for a planning application of this scale and BAA should be asked to explain why 'further efficiencies are unlikely over the planning period as these would require significant alterations to existing facilities'.
135	BAA should be asked to explain how its assumption of no further water efficiencies can be reconciled with the Panel's Report following the EiP of the Draft East of England Plan which states: 'all new development in the region must secure water savings of at least 25% over current consumption.'
136	Without further efficiency improvements Stansted's water usage would exceed 3 million litres a day in the 35mppa base case, would rise to 3.52 million litres under the 40mppa case; to 3.96 million litres a day under the 45mppa case in 2021 and to 4.40 million litres a day under the 50mppa case in 2030. This is well in excess of the supply arrangements which BAA presently has available.
137	The implications of a second runway cannot sensibly be disregarded in reviewing airport water demand over the periods to 2021 and 2030. The continued absence of a full airport masterplan for Stansted is therefore unacceptable in this context.
138	In addition to calling upon BAA to examine the water resources issue on a holistic basis, UDC should seek advice from the Environment Agency and others with a view to ensuring that the additional water demand arising from BAA's planning proposal is considered in the full context of the wider demand arising from new housing and the impact on regional rainfall arising from climate change.

Quality of Life	
140	Without a Quality of Life assessment the environmental assessment fails to adequately test the impacts of the proposal. BAA claims to have much or all of the data required to prepare the QoL assessment and should prepare and submit it - providing comparative assessments for the baseline throughput and for the 40mppa, 45mppa and 50mppa scenarios.
Consultants Reports:	
Geoff Gardner, Hives Planning	
141	Why is this not a full planning application rather than a variation of the 2003 permission without complying or varying conditions on passenger and plane levels, when other works are clearly envisaged for a 40% increase in capacity?
142	Why is a new passenger limit rejected by BAA, relying on air traffic movement control, and what is the comparable relationship between these two?
143	Why is there no long-term 'masterplan' as required in Department for Transport Guidance and the Scoping Opinion provided by Uttlesford DC prior to submission of the application? What is the relationship with proposals for Runway 2 ("Generation 2" in BAA's terminology)?
144	Why are there no improvements to surface access or car parking for a 40% larger airport?
145	Has the impact caused by aircraft noise been adequately dealt with?
146	Has the claimed economic benefit been fairly substantiated, does it fully justify the expansion of the airport?
147	Whilst plane numbers may be controlled, passenger numbers could either be 35 mppa or 40 mppa even within this Statement, a difference of just another 20 passengers per plane. Other higher figures have been mentioned in the past.
148	This report deals with surface access, but on that topic alone it is important to know what transport improvements are required for Runway 1 and what extra may be required for Runway 2.
149	In summary on the issues of travel demand and available capacity Uttlesford DC and Essex CC will no doubt look closely at the overall proposals for 'no improvements required' which seem at odds with the ingress and egress of some extra 8.3 million extra non-transferring passengers per annum even at 35 mppa. Uttlesford DC should not determine the application until the essential ingredient of surface access has been evaluated and proper proposals incorporated. These should be in full for this application, but should be illustrative in terms of additional facilities/infrastructure for the second runway. Only when this information supplied should consideration of the application proceed further.
150	Nearly half of current passengers arrive or leave in a private car and 60% in total rely on non public transport road access (ES Volume 11, paragraph 4.2.1). Paragraph 5.135 of the Planning Statement seems pessimistic that will change, even saying that public transport usage may decline. Employee numbers and road based access will also increase.
151	The above numbers point to substantial improvement required to the road network. For rail services the Planning Statement seems similarly unrealistic.
152	Noise footprints are a key issue, and to discover inaccuracies at this stage is a matter of great concern.
153	At 35 mppa there would be a 10 mppa increase overall of which 57% are in the 'UK leisure travellers' category (Table 2.5 p 13) which means that 5.7 mppa will be 'leisure passengers' to another part of the world's economy, which represents a net economic loss to the UK economy: 1.9 million arrive, 5.7 million leave. In summary, Uttlesford and other Authorities will surely question the claimed economic benefits of the expanded airport. Little positive evidence is presented in the Statement to justify these claims and there is little comparison of the additional economic benefits associated with the expanded airport.
154	Given the scale of associated development associated with this increase, detailed but not included as part of the application, the proposals must be amended to include them and the application re-submitted not merely as an alteration to the 2003 permission.
155	The economic case has not been made, more specifically in terms of cargo and net tourism the expanded airport seems to have negative effects.

156	The air noise contours need scrutinising, even though the Planning Statement acknowledges that substantial extra numbers of people will be subjected to the "onset of significant community annoyance" brought about by the substantial number of extra planes in the skies above this essentially rural and peaceful area.
Levett Therivel - Analysis of Climate Change Issues	
157	To be meaningful, EIAs should therefore test the consistency of a proposed project with those statements of policy which give protection to the environment, even if there are other policies which are inconsistent with them. This does not mean that environmental objectives will necessarily take priority in actual policy decisions. The EIA is only a decision support tool, and it is up to policy makers to decide how much weight to give to environmental consequences as against others. But it is the job of the EIA to show what these are clearly. If, as all these policy statements acknowledge, climate change impacts must be reduced rapidly and decisively, how much would have to be achieved by air travel?
158	It is utterly implausible that other sectors could reduce their emissions fast enough to allow air traffic to expand at the rate currently planned while remaining within the total reducing envelope that is implied by the "60% carbon reduction by 2050" aim set down in the Energy White Paper, and impossible under the greater reduction of 80%-plus implied by the latest science as the minimum needed for climate security. Climate security requires a reduction rather than an increase in climate change impacts from air travel.
159	Stansted expansion would directly contribute to an impact on climate change which cumulatively is severe and must be reduced. Technical fixes cannot achieve this reduction. It is not practically possible either to reduce these impacts through technological improvements or to offset them through reductions in other sectors. Therefore expansion at Stansted is incompatible with the Government's climate change policy.
160	BAA Stansted's only proposed response to the issue of climate change is supporting inclusion of air travel in an international emissions trading scheme. This is a wholly inadequate response to an environmental issue of such magnitude because: (1) it's only an idea, it isn't actually in existence, or even committed to; (2) it doesn't actually save any emissions, just encourages participants to, and the way it's presented makes clear BAA doesn't expect it to make any difference to its decisions; and (3) it depends on governments holding down allocations, and the UK government has already retreated on this issue twice in one year.
161	Stop Stansted Expansion has estimated potential CO2 emissions from air and ground transport at Stansted as being roughly 12 million tonnes/year in 2015: more than all the automobiles in the East of England Region. We believe that this is robust and well founded, though clearly all such calculations are subject to multiple uncertainties. This compares with the ES's predictions that the energy used by the airport itself will produce roughly 60,000 tonnes/year under the 35mppa scenario.
Levett Therivel - Analysis of Sustainability Issues	
162	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.
163	BAA has not prepared a clear plan for future development at Stansted Airport. It is putting forward a drip-feed of small-scale proposals, none of which individually has very significant impacts, but which, all together, do. It is difficult to make a well-considered planning decision in this fluid, uncertain context.
164	The ES does not adequately assess cumulative impacts. In particular, ground and air noise are considered separately; underlying traffic trends are not considered; and growth in impacts over time is not adequately considered. As such, the ES underestimates the proposal's impacts.
165	Schedule 4 of the Town and Country Planning (EIA) Regulations require an assessment of the development's "direct effects and any indirect, secondary, cumulative... effects." Cumulative impacts are (1) 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 and (2) Cumulative impact assessment thus focuses on the impacts of multiple activities, including past activities and the proposed project, on specific receptors (or environmental parameters).

166	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 give a total for traffic from operation and construction activities: operational traffic is discussed at ES Vol. 11 and construction traffic at ES Vol. 15. The ES even splits construction traffic into vehicle-movements by construction workers (550 per day at peak, ES Vol. 15 Table 2)) and HGVs (224 per day at peak, ES Vol. 15 Table 3), without giving the total of the two.
167	ES Vol. 3 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 ES Vol. 11.
168	Neither ES Vol. 2 on air noise nor Vol. 8 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.
169	The ES does not predict the airport's climate change impacts at all.
170	The ES provides much useful data about the baseline situation in 2003/4, but in the welter of scenarios, and the 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. Focusing on the change from 25mppa to 35mppa does not fully reflect the impact.
171	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.
172	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.
173	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.
174	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..." (ES Vol. 1 para. 10.2.73). This comparison of two scenarios masks the fact that both scenarios would exacerbate an already problematic situation.
175	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.
176	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.
177	The absence of a QoLA analysis in the Generation 1 ES means that important mitigation measures may not be identified.
178	Planning authorities must ensure that the environmental information (including the ES) that accompanies a planning application addresses 'all of the relevant environmental issues'.
179	DCLG guidance notes that: "The planning authority is responsible for evaluating the ES to ensure it addresses all of the relevant environmental issues and that the information is presented accurately, clearly and systematically. It should be prepared to challenge the findings of the ES if it believes they are not adequately supported by scientific evidence."
	<i>Additional information required from BAA:</i>
180	(i) Explanation about why no planning applications are currently being made for the projects listed in ES Vol. 1 para. 7.3, and when such planning applications will be forthcoming. Confirm which Generation 1 ES chapters discuss the impacts of which of these projects.

181	(ii) Either confirm that 40mppa is really “well in excess of [the use] considered reasonably possible” for one runway, and sign a legal agreement that no applications will be made for more than 40mppa; or also prepare impact predictions for 45 and 50mppa given that, under current trends in aircraft design, these could be “possible”; or develop a full masterplan for future development of the airport.
182	(iii) Explain how non-airport development, and particularly growth in response to the Government’s Sustainable Communities Plan, has been taken into account in all chapters of the ES. In particular, explain how non-airport increases in road traffic have been taken into account in the ES’s air quality predictions.
183	(iv) Clearly present the total traffic impacts from airport operation and construction, plus underlying trends.
184	(v) Predict total noise impacts from air plus ground noise from the airport operation, plus construction activities, and confirm that predictions also include underlying trends (e.g. increased traffic from Sustainable Communities Plan).
185	(vi) Predict total land take by development linked to this and future planning applications, and the percentage of non-developed land within the airport boundaries that this represents.
186	(vii) Present total (not disaggregated) predicted daily traffic flows in 2003/4 plus under various future scenarios.
187	(viii) Predict climate change impacts from aircraft and airport operation, surface access, airport-related development etc and explain how these impacts will be mitigated.
188	(ix) Specify the number of residents affected by >69 and >72dB exposure under the various scenarios.
189	(x) Explain why ES Vol. 3 Tables 23 and 25 show radically lower baseline air pollution levels than those monitored by UDC.
190	(xi) Predicted air pollution levels at UDC monitoring points (esp. along A120) with 35mppa scenario.
191	(xii) Explain what ‘peak times’ have been used in the impact predictions, and how the predictions would vary under different ‘peak times’.
192	(xiii) Explain whether the sum of proposed mitigation measures is considered adequate to deal with the sum of likely impacts of the development.
193	(xiv) Explain why underground car parking and significant contributions to improvement of the rail services has not been proposed as mitigation for landscape and surface access impacts; and explain under what circumstances such mitigation would be proposed.
194	(xv) Explain what measures have been taken to determine the benefits and services that local residents get from their area; and how these benefits can be maintained and enhanced. Explain how this has affected the development of the Generation 1 ES.
195	(xvi) Explain measures taken in the Generation 1 ES to ensure that predictions are accurate.
196	(xvii) Explain how ES Vol. 16 (air traffic data) has taken account of how a possible carbon emission trading scheme, a potential aircraft fuel tax and VAT, and/or increasing fuel costs would affect air traffic at Stansted.
197	Where all relevant environmental information on a proposed project is not available, the planning authority must request it and, if the information is not provided, it must refuse the application.
Sustainability Appraisal - Report by Paul Garland	
198	There is a fundamental lack of confidence in the Sustainability Appraisal carried out by RPS on behalf of BAA following RPS's prior stated commitment to do "all in its power to support" BAA in delivering its Stansted expansion plans and to focus upon "when and how to deliver the planning consent rather than if". An independent Sustainability Appraisal is required.
199	The document fails to spell out the indirect consequences of the proposed development, e.g. the water that will be used in the homes of the extra employees and their families, the waste that they will generate, the extra demands that will be made on the road and rail infrastructure, etc.
200	No distinction is made in the significance of the issues under examination, with the result that a dark green for an insignificant issue makes the same visual impact as a dark red for a significant issue.

201	In some cases a judgement of very good is shown by a large expanse of dark green because so many words are used. In others a judgement of very poor is shown by a small expanse of dark red. See, for example, 4.1, where the area of red for CO2 emissions is very small and 4.2, where the area of green for mitigation measures is very large.
202	The issues of most concern to the stakeholders who were involved in the process, and which received a negative assessment in the final circulated draft, were either reassessed more positively using different criteria or left out altogether from the final submitted document. This document was not sent to the stakeholder group members and was only received by them when it was already in the public domain.
203	The objectives, questions and results of this appraisal, rather than testing the policy, have been intentionally framed in such a way that the national airports policy was not undermined. This seems to be contrary to the ATWP's stated intention that specific development proposals should be tested for their environmental impact and hence sustainability. We understand that specific examples of how the Sustainability Appraisal Report was manipulated to produce the desired report have been provided by Mr Garland to UDC.
Health Impact Assessment	
204	The HIA is based on the assumption that removal of the 25mppa ceiling would result in Stansted's passenger throughput rising to 35mppa or at most 40mppa but the actual throughput could easily rise to 45mppa by 2021 and to 50mppa by 2030. This would involve larger aircraft and a far larger increase in airport-related road traffic than has been allowed for in the HIA, both of which factors have significant impacts upon local air quality, aircraft noise and ground noise.
205	Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations, 1999 requires an assessment of the development's direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects resulting from the existence of the development, the use of natural resources and the emission of pollutants, the creation of nuisances and the elimination of waste. The HIA fails to satisfy this requirement.
206	The HIA explicitly excludes any consideration of climate change impacts upon human health. In view of (i) the seriousness of the issue; (ii) the scale of impacts arising from the proposed development; (iii) the planning guidance set down in PPS 23 and (iv) the overarching duty of a local planning authority to consider the impacts of a proposed development upon community health, UDC has no choice but to insist that climate change impacts are made fully transparent and formally assessed as part of the HIA.
207	As shown in Vol 1 of SSE's response, BAA's assessment of the environmental impacts is inadequate and unreliable and this has a knock on effect upon the HIA because it relies upon BAA's EIA data as its core input. In the EIA, the impacts of the proposed development in such areas as aircraft noise, ground noise, air quality and surface access have been systematically understated and all of these are of fundamental importance in assessing the health impacts.
208	Also, as shown in Vol 1 of SSE's response, there are no local or regional net employment benefits arising from the proposed development and even on a national basis it is doubtful that net employment benefits would arise. However, the HIA relies upon such illusory employment benefits as a basis for justifying the many adverse health impacts of the proposed development.
209	The HIA excludes any consideration of the health impacts of a 43% increase in night flights. Whilst it is true that an increase could take place even if the planning application were not approved, if additional ATMs were to be permitted, there would be greater scope for BAA to accommodate more night flights. In addition cumulative health impacts require to be considered, whether or not these are directly contingent upon the planning approval that is sought.
210	The HIA's reliance on BAA input data based on the 57dBA Leq air noise threshold alone is an inadequate basis for a proper health assessment of the noise impacts upon the local community. For example, the assessment of noise impacts fails to take account of the cumulative effect of aircraft noise, ground noise and road traffic noise arising from the development, contrary to Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations, 1999.

211	The HIA also fails to take account of cumulative impacts over time. The impact of the airport upon the education of children in local schools is an example of this where the incremental damage to children's education is serious enough but is viewed as negligible because it is only a small increase on the status quo. Another example is the reduction in local life expectancy in relation to concentrations of PM2.5. The further reduction in life expectancy arising from the expansion proposal is described as negligible in proportion to the loss in life expectancy which local residents already suffer as a result of proximity to the airport.
212	The HIA states that the proposed development would produce no additional aircraft movements for the evening part of the shoulder period (2300 hours to 2330 hours) and only about four additional aircraft movements for the early morning period (0600 hours to 0700 hours). This is wrong even by BAA's own figures, which show that the proposed expansion would result in a 32% increase in ATMs between 0600 and 0700 hours despite the fact that the morning shoulder period at Stansted is already used very intensively compared to other airports.
213	The HIA should have carried out a study to question a cross section of those living in the vicinity of the airport and further afield beneath flight paths about sleep disturbance during the shoulder periods and during the night period. In the interests of community health, UDC should itself address the health impacts of sleep disturbance from night flights which the HIA dismisses simply by assertion (i.e. with no supporting evidence - indeed, on the basis of some evidence which is plainly wrong).
214	Contrary to WHO Guidelines, the HIA did not give any special consideration to the potential impacts upon vulnerable groups within the local community such as the handicapped and socially isolated. Data should have been provided to enable quantification and assessment of the impacts in this area.
215	The HIA takes no account of the recent report commissioned by UDC showing that NO2 levels in such places as Great Hallingbury, Start Hill and Burton End, which are close to both the airport and busy trunk roads, are either just below or indeed already above the statutory limit of an annual mean of 40 micrograms of NO2 per m3. These levels of NO2 concentration would increase if the application were approved whereas UDC has a duty to work towards achieving levels below the statutory limit.
216	ERM's questionnaire survey in the local community produced an average positive score of 3.8% on the perceived health impacts of airport development compared to an average negative score of 60.2%. ERM dismissed the results of its own survey by concluding that the results were irrational and attributable to a 'lack of knowledge' on the part of the local community. This fails to grasp the seriousness of the current noise impacts of the airport upon the local community and the very obvious concern that the proposed expansion would make matters much worse.
217	The HIA ignores the issue of stress and anxiety associated with (1) the inexorable expansion of Stansted; (2) sleep disturbance from night flights; (3) commuting – especially when services are increasingly unreliable, congested and overcrowded; (4) disruption to established communities; (5) concerns about general deterioration of the local environment, quality of life and devaluation of properties; (6) increase in the local population, taking account of the cumulative impacts of the development in relation to housing and development pressures; and (7) progressive urbanisation leading to problems in health inequality and the prospect of increased crime which, again, is particularly stressful for those with young families and the elderly.
218	The HIA emphasises the health benefits arising from the additional employment that would be created by the proposed expansion but totally ignores the even more significant issue of displacement employment which, as we have shown in our main response, would arise in four areas, namely: (1) domestic tourism; (2) Luton Airport; (3) inward investment; and (4) in relation to carbon-intensive industries.

Note *The three reports prepared by consultants at the TRL Centre for Sustainability which were submitted by SSE to UDC in July 2006 are excluded from the above checklist because these reports do not relate directly to the planning documents submitted by BAA. Rather, they are of a general nature, examining international best practice in relation to the control of aircraft noise, aircraft emissions and the surface access impacts of airport operations, globally.*

