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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

Summary Proof of Evidence on behalf of Stop Stansted Expansion

Water Impacts

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1 INTRODUCTION

1.1 Personal details

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

1.1.2 In preparing the research and analysis underlying this evidence I have been assisted by other members of SSE.

1.2 Qualifications and experience

1.2.1 MA (Cantab) Mechanical Sciences.

1.2.2 I have spent 33 years working in the field of computer systems.

2 SCOPE OF EVIDENCE

2.1 Core evidence

2.1.1 SSE's evidence relating to water impacts was originally set down in Chapter 11 of Volume 1 of SSE's submission to UDC, July 2006 [CD/201] which addressed the information provided by BAA in Volume 14 of its Environmental Statement [CD/17].

2.1.2 Further evidence on water impacts was included in Volume 3 of SSE's submission to UDC, November 2006[1] dealing with the additional information provided by BAA in response to a Regulation 19 Notice from UDC [CD/22].

2.1.3 That evidence is superseded by SSE/16/a which incorporates more recent data now available and further analysis carried out. This is a summary of SSE/16/a.

3 WATER RESOURCES

3.1 Regional context

3.1.1 To enable a proper assessment of the water consumption implications of BAA's proposed development it is necessary to take account of the indirect and induced effects of the proposed development and to consider all of this airport-related demand in the wider context of the demands that will be placed upon water resources across the East of England as a whole arising from the major housing and other development planned for the period through to 2021 (and beyond).

3.1.2 The East of England RSS[2] will contain an unprecedented scale of planned new housing development with more than 500,000 new homes to be built in the Region

[1] CD/203, para 4.16.
[2] Regional Spatial Strategy. This is still in gestation [CD/74 - CD/76].

by 2021. To put this in context: we are looking at about 17% more homes and 16% more people in the East of England Region in a space of just 14 years.

3.1.3 The outlook on the supply side also needs to be considered. The East of England is the driest region in the UK (and Essex is the driest county) and it is predicted that as a result of climate change, the Region will experience a 19% reduction in annual rainfall by 2050.

3.1.4 The Government's Proposed Changes to the Draft East of England Plan support a water efficiency target of 'at least 25%' for all new development and 'at least 8%' for existing development.

3.2 Stansted context

3.2.1 The 2002 SERAS environmental impact study by Halcrow [3] on behalf of the Department for Transport ('DfT'), highlighted water supply as a major issue in relation to maximum use of the Stansted runway. It concluded:

> *'It may be difficult to meet the significant increase in demand even through supply and demand management and water saving technology.'* [4]

3.2.2 The 2002 Halcrow report defined the impact of allowing maximum use of Stansted's existing runway on water resources as 'high adverse' and BAA now describes this as 'moderate adverse.' [5] This appears incongruous because, since 2002, the scale of housing development planned for the Region has increased whilst the predictions for less rainfall in future have become firmer.

3.2.3 Three Valleys Water ('TVW'), which serves Stansted Airport, relies on abstraction from local boreholes for most of its water and it is clear from evidence provided by the Environment Agency at the Examination in Public ('EiP') of the Draft East of England Plan[6] that the current level of abstraction in the East of England is unsustainable.

3.2.4 The BAA Environmental Statement ('ES Vol 11') [CD/14] is narrowly focused upon assessing only the impact of its proposed development on Stansted Airport's water supply and the ability of existing arrangements and infrastructure to cope with that.

3.3 BAA projections for water consumption

3.3.1 BAA claims that *'The Airport has experienced significant improvements in water efficiency in recent years'*.[7] 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 about 2 million litres per day ('MLD'). Efficiency improvements went into reverse in 2005/06 and airport water consumption rose 14% compared to only a 5% increase in passengers over the previous year.[8]

3.3.2 BAA's assertion that there is no scope for efficiency gains over the plan period results in projections for Stansted's water consumption higher than the projections

[3] 'SERAS Stage Two Appraisal Findings Report'. Halcrow (on behalf of DfT), April 2002, [CD/235].
[4] Ibid, Table 9.20, p302.
[5] CD/17, para 9.2.8.
[6] CD/74.
[7] CD/17, para 6.1.1.
[8] BAA Stansted Corporate Responsibility Report, 2005/06, Table 6, p19 [CD/161].

shown in ES Vol 14 [CD17]. The 3 MLD supply which BAA relies upon would be exceeded at a passenger throughput of 37.1mppa.

3.3.3 We refute BAA's conclusion that the effect of the 35mppa case has a minimal effect upon regional water supplies.

3.3.4 BAA does not consider the water supply or waste impacts arising from indirect and induced effects of the proposed development – in contrast to the approach taken by BAA in assessing economic and employment impacts.

3.4 Planning context

3.4.1 The planning process will be expected to play a key role in ensuring that the Region's water efficiency targets are met and the ability of any new development to meet the water efficiency target of 'at least 25%' must be a pre-condition for planning consent. This will be particularly important in the case of major water-intensive developments, such as an airport.

3.4.2 It is clear even from BAA's projections that the proposed development would not meet the water efficiency target of 'at least 25%'. Indeed, BAA states that it does not anticipate achieving any further efficiency improvements.[9] In view of the scarcity of water resources in Essex and the East of England as a whole, and the inevitability of this becoming a more serious problem in the future, BAA's application should be refused on these grounds alone. The national, regional and local importance of water far outweighs the national, regional and local importance of permitting Stansted to provide more leisure flights.

3.5 Waste water/sewage

3.5.1 Waste water from Stansted Airport is processed at two sewage treatment works ('STW'), Rye Meads and Bishops Stortford, which are operating at or close to their capacity and will also need to accommodate substantial new housing development.

3.5.2 A recent report by Halcrow[10] indicated potential capacity problems at Rye Meads in particular and potentially lengthy timescales for increasing its capacity.

4 CONCLUSIONS

4.1 BAA appears to be suggesting that the possession of a contract with TVW (made many years ago) provides a guarantee that its water needs for the proposed development will be met. This is an untenable position in today's circumstances because it fails to take account of the wider regional context in relation to both supply and demand. This application must be considered in that wider context, taking account of the large number of new homes and other development planned for the Region (much of it locally) to 2021 as well as the predicted decline in regional precipitation over the same period arising from climate change.

4.2 BAA cannot be exempt from the need to make best use of scarce water resources within the Region and the water efficiency targets emerging from the RSS process must be a material planning consideration.

[9] CD/1, para 6.1.1.
[10] East of England Capacity Delivery Strategy Study: Phase 1 Final Report', Halcrow, Dec 2006.

4.3 BAA has understated the increase in water consumption that would arise from its proposed development both in relation to the 35mppa base case and the 40mppa sensitivity. Indirect and induced effects have been ignored and the current baseline has been understated.

4.4 BAA's conclusion that the water impacts of its proposed development would be 'minor adverse' is unreliable and not supported by the evidence. It is also worth noting that Halcrow's 2002 report for SERAS (not to be confused with its 2006 report for Go-East, the Environment Agency and EERA) concluded that the impact of maximum use of Stansted's existing runway for water resources would be 'high adverse'.[11]

4.5 No assessment has been carried out in relation to growth beyond 40mppa. We estimate that, if the application were to be approved, passenger throughput on the existing runway would be about 45mppa by 2021 rising to about 50mppa by 2030.

4.6 Potentially very significant adverse impacts could arise if the local STWs did not have the capacity to deal with a substantial increase in waste water and sewage outflows from Stansted Airport taking account also of other planned development in their local catchment areas – both airport-related and non airport related. This issue requires to be investigated as a matter of urgency.

[11] 'SERAS Stage Two Appraisal Findings Report'. Halcrow (on behalf of DfT), April 2002, Table 9.20. [CD/235].