

Town and Country Planning Act 1990

Applications by London Ashford Airport Ltd

APP/L2250/V/10/2131934 & APP/L2250/V/10/2131936

Site at London Ashford Airport Limited, Lydd, Romney Marsh, TN29 9QL

CPRE/07/D – Flood Risk & Sea Level Rise: REBUTTAL & FURTHER EVIDENCE

Rebuttal Statement by Sean Furey BSc (Hons) MSc C.WEM MCIWEM FRGS
on behalf of Protect Kent (the Kent Branch of CPRE) on Flood Risk and Sea Level Rise

1 INTRODUCTION

- 1.1 This statement of rebuttal primarily takes account of the initial evidence of Mr Christopher Mead of WSP and Mr Sean McGrath of Indigo Planning
- 1.2 Where this statement does not mention or take account of evidence presented as above or elsewhere on behalf of the appellant, this is not to be understood as acceptance by CPRE Protect Kent of such evidence.

2 AREAS OF COMMON GROUND

- 2.1 On the basis of the updated Flood Risk Assessment and the evidence of Mr Mead (LAA/13/A), many of the concerns raised in my original statement have been addressed and we have agreed areas of common ground, as set out in an email from Mr Mead on 22 February 2011:

The Updated FRA prepared by WSP provides a PPS25 compliant evidence base for the Airport.

It is agreed that the Airport is located in Flood Zone 3a and that the assessment of flood risk should use this as a starting point when referring to PPS25.

On the basis that the hydraulic calculations in the Updated FRA are accepted it remains a matter for the Inquiry to debate the following issues:

- *The need for Airport financial contributions to the maintenance and improvement of flood defences.*
- *The level of risk to be assigned to the potential impact of climate change.*
- *The relevance of the Dungeness C decision.*

3 REMAINING CONCERNS FROM CPRE/07/A

Sea Level Rise

- 3.1 As set out in the evidence from myself and Dr Geoff Meaden, Romney Marsh is highly vulnerable to sea level rise and increasing storm surges. Mr Mead's evidence deals with this area well and reasonably. However, because many areas of the marsh are already below the high tide level, the long term consequences are severe and so it is valid to consider low-probability/high consequence outcomes, such as the "H++" scenario described in UKCP09, which describes sea-level rise in the order of 0.93 – 1.9m, albeit with significant uncertainty in timing due to the unknowns around the rapid melt of the Greenland and/or West Antarctic ice caps.
- 3.2 The long term concerns about coastal processes were noted in the Dungeness 'C' decision and although civil engineering and flood risk management solutions are available they are expensive.
- 3.3 While otherwise agreeing with much of Mr Mead's analysis, I take issue with his statement in paragraph 7.1.2 that claims that the evaluation of flood risk to the Airport "*has been overly robust*". The Strategic Flood Risk Assessment for Shepway was based on very detailed modelling and mapping work and forms the basis for planning decisions in the District going forward into the Local Development Framework and other major planning decisions. It has also taken on board advice and experience of many experienced stakeholders in the area, such as the Romney Marsh Internal Drainage Board and the local group, Defend Our Coast. If the Environment Agency's flood maps and the Shepway SFRA are wrong then it has far reaching implications for planning, housing and potential employment opportunities across Romney Marsh.

Groundwater Flooding & Climate Change

- 3.4 In relation to groundwater flooding, Mr Mead quotes the Shepway SFRA in paragraph 3.3.7 and makes no further comment on the implications of climate change for the Denge Gravel Aquifer, so I await his comments in the rebuttal.

Dungeness 'C' decision

- 3.5 This was not dealt with in Mr Mead's proof, so I await his comments in the rebuttal.

Financial Contributions to Flood Defences

- 3.6 The assumption put forward is in paragraph 8.2.2 that "the EA and Coastal Authorities/MOD maintain the defences in line with their published policy" is not as certain as one might expect, or hope, as I shall outline below.
- 3.7 Mr Mead's evidence does confirm my concerns that the airport is vulnerable to a breach at Galloway's (Lydd Ranges), one of the weakest parts of the Romney Marsh coastal flood defences. Appendix 2.1 of this rebuttal presents reports by Mr Tony Hills, the technical officer for Defend Our Coast, documenting the vulnerability of the coastal defences along the Lydd Ranges, Galloways and Jury's Gap frontage in just the last year alone.

- 3.8 Environment Agency's¹ description of the situation at the Lydd Ranges (including Galloway's lookout):

“The existing defences have a 20% (1 in 5) chance of failure in any one year, where the likely failure mode would be overtopping and breaching. This standard of protection will decrease over time if sea level rises as predicted.

History of Flooding

Serious breaching and overtopping of the shingle beach took place in November 1984 and February 1990 and again in October and December 1999. Significant flooding also occurred landward of the Green Wall both on the MoD range and on surrounding agricultural land during these events. More recently the defences breached in December 2006 and March 2008 requiring emergency response. Seepage through the shingle can also lead to flooding of the inland areas.”

- 3.9 To put the risk to the airport in context, the revised FRA² states that the finished floor level for the terminal building will be 3.5 metres above Ordnance Datum (mAOD). The astronomical spring high tide on the 22 March 2011 is expected to be 8.4m (4.45mAOD). According to the National Oceanography Centre, the highest spring tide between 2008 and 2026 is expected on 29 September 2015. If there is a strong south-westerly wind around these times (as often occurs around the spring and autumn equinoxes) then wave heights could add a further 2 – 4 metres to the tide. Hence there is an urgency to secure funding for these coastal defences and support from the airport would increase the priority score in Defra's national funding framework.
- 3.10 Although, improvements are included in the Environment Agency's capital improvements programme, the outcome of the comprehensive spending review means that funding for this essential work is uncertain, with the national budget for capital investment in new flood defences being cut by 27%³.
- 3.11 Neither the Broomhill Sands nor the Lydd Ranges schemes have secured funding from Defra⁴.
- 3.12 Appendix 2.2 of this rebuttal shows the latest update from the Environment Agency to Defend Our Coast on the status of the Romney Marsh coastal defence projects. Funding to schemes in the Folkestone to Cliff End strategy have been cut for 2011/12 with a great deal of uncertainty in future years for funding. In this climate austerity there is a more severe prioritisation of schemes nationally towards those with the highest cost-benefit ratios. The update states that securing external contributions will increase a scheme's priority score and hence be more likely to be implemented.

¹ P.76, CD12.10

² para 6.2.1, LAA/13/C, Annex 1

³ The Guardian (24 November 2010) *Flood defence budget cuts: who's spinning what?*, <http://www.guardian.co.uk/environment/blog/2010/nov/24/flood-defence-cuts-facts-spin>

⁴ Pers. Comms. Andrew Pearce, Kent & East Sussex Area Manager, Environment Agency, 21 February 2011.

3.13 In the Environment Agency document: ‘Investing for the future – Flood and Coastal Risk Management in England’⁵, and under section 5: *Additional sources of funding and efficiency* it states:

“In recent years almost all investment has been funded by central government from taxation revenues. A shift towards ‘beneficiary pays’ has already begun for new developments. The Environment Agency’s new external contributions policy aims to ensure that developers pay the full cost of any risk mitigation measures necessary for their projects.”

3.14 In the press announcement to the Flood Defence spending for 2011/12⁶, Lord Smith, Chairman of the Environment Agency said:

“We will also seek financial contributions from organisations such as developers and businesses who directly benefit from these defence schemes. Doing so will allow our funds to be stretched further and mean more can be done overall.”

3.15 In Paragraphs 5.4.1 and 5.4.2, Mr Mead highlights other airports in flood risk areas. It is worth noting that in correspondence from the Environment Agency, (Appendix 1 to this rebuttal) that BAA reportedly gave a financial contribution of more than £4 million to Environment Agency for flood management measures on the River Mole, which impacts the site.

3.16 Because Lydd Airport is directly affected by the performance of the coastal flood defences at the Lydd Ranges, and intends to become one of the principle economic assets on Romney Marsh, it seems reasonable that any permission granted should include provision for contributions to the on-going flood risk management activities that protect it, especially as Gatwick sets a precedent.

3.17 Mr McGrath states in his evidence⁷ that :

(c) It is demonstrated in Evidence presented by Mr Christopher Mead (LAA/13/A) that, subject to the implementation of appropriate flood risk measures to be controlled by planning conditions, there will not be any significant flood risk directly associated with the Applications.

3.18 Mr McGrath is incorrect, in that the proposed terminal building is in Flood Zone 3a and is currently at risk from the inadequate defences at Broomhill Sands and the Lydd Ranges. That inadequacy has been identified by the Shoreline Management Plan (SMP)⁸ and the Folkestone to Cliff End Flood & Erosion Management Strategy (FEMS)⁹, but the Environment Agency lack the resources to implement their schemes. His statement could be made more correct if the planning conditions and section 106 agreement made provision for contributions to defences that protect the airport.

⁵ CD12.13

⁶ Source: <http://ww2.defra.gov.uk/news/2011/02/09/flood-defence/> (accessed 25 February 2011)

⁷ Paragraph 8.109. LAA/14/A

⁸ CD12.12

⁹ CD12.10

4 CONCLUSION

- 4.1 The revised Flood Risk Assessment, prepared by WSP, is a significant improvement on the 2006 version by RPS, and takes into account more recent modelling and information prepared by for the Shepway SFRA and work by the Environment Agency. However, the work by WSP does show that the airport, and the new and existing terminal buildings are vulnerable to a breach at Galloway's and the Lydd Ranges, on the south coast of the Dungeness peninsula. This stretch of coastline is currently vulnerable and despite active beach replenishment by the Environment Agency, provides protection only up to 1-in-5 year events rather than 1-in-200 year events.
- 4.2 This current vulnerability (combined with the possibility that sea level rise may be more severe than the medium and high scenarios in UKCP 2009 climate projections) means that enhancing the coastal protection is an urgent priority. With the EA's capital programme facing severe cuts, a contribution from the Airport, formalised in the s106 agreement, would be a significant benefit to the area. However, the magnitude of the contribution may further undermine the commercial viability of the airport and is further evidence of the unsuitability of the area for a commercial passenger airport.