

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

SECTION 77 TOWN AND COUNTRY PLANNING ACT 1990 – REFERENCE OF APPLICATIONS TO THE SECRETARY OF STATE FOR COMMUNITIES AND LOCAL GOVERNMENT

TOWN AND COUNTRY PLANNING (INQUIRIES PROCEDURE) (ENGLAND) RULES 2000

**SUMMARY PROOF OF EVIDENCE OF
CHRISTOPHER MEAD CEng MICE MCIWEM MIHT
FLOOD RISK**

In respect of:

Planning Application Reference: Y06/1647/SH (New Terminal Building)

Planning Application Reference: Y06/1648/SH (Runway Extension)

relating to land at London Ashford Airport, Lydd, Romney Marsh, Kent, TN29 9QL

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Summary Proof of Evidence

1.1 INTRODUCTION

- 1.1.1 My name is Christopher John Mead, CEng MICE MIHT MCIWEM BSc (Hons). I am a Director of WSP UK's Development and Transportation division and I have more than 25 years' experience in development-related water and flood infrastructure works.
- 1.1.2 I am familiar with the London Ashford Airport (the "Airport") site having prepared Flood Risk Assessments for several sites in Kent and East Sussex, and having visited the Airport to view the existing drainage system and nearby coastal defences.
- 1.1.3 My evidence relates to the drainage and flooding aspects of the proposed new terminal building and runway extension at the Airport pursuant to the December 2006 Applications for the construction of a 294m runway extension and a 150m starter extension (council reference Y06/1648/SH) and a new terminal building (council reference Y06/1647/SH).
- 1.1.4 This summary of my evidence addresses the question of tidal flood risk both now, and in the future, as detailed in my evidence and technical annexes, and the approved Airport expansion drainage strategies.

1.2 SUMMARY

- 1.2.1 There is no record of fluvial, groundwater or surface water flood risk to the Airport. Risk from such such sources can in any event be safely mitigated by the sustainable management of water both within the curtilage of the Airport and the broader Romney Marsh area under the jurisdiction of the Romney Marsh Area Internal Drainage Board (RMAIDB).
- 1.2.2 As to any risk from tidal flooding, I explain in my evidence that the Environment Agency's (EA) existing policy for maintenance of the coastal defences on the Romney Marsh peninsular is set out in the South Foreland to Beachy Head Shoreline Management Plan, 2006 (SMP) and Folkestone to Cliff End Flood and Erosion Management Strategy, 2008 (FEMS). Although varying in precise detail for each component of the defences

around the Dungeness Peninsular, the overriding policy is to maintain sea defences in a manner which provides a 0.5% probability (1 in 200 year) standard of protection, taking account of the predicted impact of climate change over the next 100 years.

- 1.2.3 Therefore the Airport will be adequately defended from tidal flood risk to the standard required by Planning Policy Statement 25, Development and Flood Risk (PPS25) both today and in the future.
- 1.2.4 As to any residual flood risk from either a breach failure of the tidal flood defences or an extreme probability flood event, I have explained that using the Shepway District Council Strategic Flood Risk Assessment (2009) (SFRA) work as reference, the tidal flood risk to the Airport can be quantified for a single breach of 100m, in line with EA SFRA guidance, using modelled outputs for the Airport.
- 1.2.5 A further adjustment for the effects of climate change can be made to take account of the latest United Kingdom Climate Programme guidance published in August 2009 (UKCP09), which post-dates the 2002 United Kingdom Climate Impact Programme data used in PPS25. Application of the UKCP09 95th percentile medium scenario would reduce the predicted 2115 sea level by approximately 18cm. If the 50th percentile medium scenario were to be used then the SFRA predicted sea level in 2115 would reduce by 43cm, as explained in Annex 1 of my Proof.
- 1.2.6 Using the UKCP09 95th percentile medium scenario for a single breach to the east of the Airport at Greatstone Dunes in the year 2115, the flood hazard rating is no hazard or zero flood risk to the terminal building, and low to the runway extension.
- 1.2.7 Even in the very unlikely event of a single breach to the south at Galloways occurring there would be no hazard to the runway extension and only a low hazard to the terminal building now and a low hazard to the runway extension today whilst a significant hazard to the terminal in the year 2115. But even if such an unlikely breach were to occur, it is to be noted that the Airport is some 4.7km away from the flood source, and there would be a flood alert in operation and emergency services would be expected to

provide a rapid response to repair the breach in order to protect the town of Lydd anyway.

- 1.2.8 The modelling of this residual risk breach scenario for the higher SFRA sea levels shows that there would be a delay of 4 hours from breach failure to first flood water arriving at the Airport and a further 14 hours, (ie 18 hours in total), until the peak depth of flooding were realised.
- 1.2.9 Given that the combined meteorological and coastal processes required to cause such a low probability, extreme flood would be known by the EA at least a day in advance and, in the time that flooding would take to reach the Airport in the event of a breach of the tidal defences, there is ample time for the Flood Warning and Evacuation Plan to be safely implemented.
- 1.2.10 From a PPS25 policy perspective the Airport is located within Flood Zones 2 and 3 based on the EA's Flood Zone Maps currently available (December 2010). Based on the SFRA single breach maps for 2009 the proposed expansion works for the Airport are in Flood Zone 1 (for the runway extension) and Flood Zones 1, 2 and 3a (for the terminal building) today. The Airport also benefits from existing coastal defences.
- 1.2.11 In approving the original FRAs the EA agreed that as a commercial operation the Airport is a less vulnerable land use. Accordingly the Airport is permitted development in line with Table D.2 of PPS25 in Flood Zones 1, 2 and 3a. Proposals for the Airport therefore pass the Flood Sequential Test.
- 1.2.12 Even if the Airport were to be classed as Essential Infrastructure, which I do not consider it should, the relevant development would be acceptable anyway as the runway extension is in Flood Zones 1, and the terminal building is in Flood Zones 1 and 2, with those residual parts in Flood Zone 3a meeting the Exception Test in accordance with the guidance of Table D.2 of PPS25 as:
 - a) the development's wider sustainability benefits to the community outweigh any flood risk;

- b) the land on which the new Terminal development in Flood Zone 3a is proposed is existing brownfield land, and there are no other reasonable alternatives in any event;
- c) there are existing, maintained, flood defences and the Airport has mitigation proposals comprising a Flood Warning and Evacuation Plan, and flood resilient construction.

1.2.13 There are many airports in EA designated floodplains, such as London Gatwick and City Airports, Glasgow Prestwick and Edinburgh Airport.

1.2.14 The proposals for the Airport expansion are in full compliance with national and local policy on flooding.

1.2.15 With regards to drainage it is agreed by the EA and RMAIDB that the new Terminal does not increase run-off as it is located on a existing impermeable pavement area; the runway extensions necessitate the diversion and creation of new ditches which provide sufficient volume to attenuate run-off to greenfield rates and provide more new ditch than the length of ditch lost to extension.

1.3 CONCLUSION

1.3.1 My evidence clearly demonstrates that the proposals comply with national and local flood policy, and flood risk does not prejudice expansion at the Airport and there is therefore no reason for expansion not to be permitted.

1.3.2 The Airport is strategically located in the Dungeness Peninsular where tidal defences are to be maintained to a high standard for the next 100 years. This means that the actual flood risk to the Airport is low and will remain low to the year 2115. The assessment of residual flood risk and appropriate mitigation measures demonstrates that the expansion of the Airport can proceed in full compliance with prevailing local and national policy.