



Gatwick Airport Northern Runway Project

Environmental Statement

Appendix 15.3.2: Summary of Stakeholder PEIR Responses – Climate Change

Book 5

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1 Introduction

1.1 General

- 1.1.1 This document forms Appendix 15.3.2 of the Environmental Statement (ES) prepared on behalf of London Gatwick Airport Limited (GAL) for the proposal to make best use of Gatwick Airport's existing runways and infrastructure (referred to within this report as 'the Project').
- 1.1.2 This document provides the summary of the stakeholder Preliminary Environmental Information Report (PEIR) responses relevant for **ES Chapter 15: Climate Change** (Doc Ref 5.1) for the Project and how they have been taken into account in the ES.

2 Summary of Stakeholder PEIR Responses

Table 2.1.1: Summary table of Stakeholder PEIR Responses

Consultee	Details	Response
West Sussex County Council	Concerns over Urban Heat Island (UHI) effect created by Gatwick Airport and how this may be exacerbated by the Project.	An UHI Assessment for the Project has been included and it concludes that the Project would not create a new UHI effect, but that the increased impervious surface cover and buildings due to the extension of the taxiways, hotels and car parks, among other features alongside projected increases in temperature from climate change could exacerbate the increase in the UHI effect at the Project site itself, particularly at night. However, this UHI effect is low (ES Chapter 15: Climate Change (Doc Ref.5.1), and ES Appendix 15.5.2 Urban Heat Island Assessment (Doc Ref. 5.3).
Horsham District Council; East Sussex County Council; Sussex Wildlife Trust; AECOM	The need for the Climate Change Resilience (CCR) and In-Combination Climate Change Impacts (ICCI) assessments to be supplemented by detailed mitigation measures, beyond high level embedded mitigation measures, to ensure secure mitigation post-Development Consent Order (DCO). More detail on mitigation measures could include the route to implementation alongside monitoring of implementation and effectiveness.	<p>The ES does not identify any further mitigation measures (in addition to embedded mitigation that is part of the Project and adherence to existing legislation) as there are no high and very high risks. Where embedded mitigation is accounted for via design commitments, mechanisms are included to show where this mitigation is secured (see ES Chapter 15: Climate Change (Doc Ref. 5.1), Table 15.8.4).</p> <p>Outline Climate Resilience Design Principles have been prepared to ensure climate change resilience measures would be integrated into later design stages (after consent) and throughout operation (see Design and Access Statement Design Principles (Doc Ref. 7.3), ES Appendix 5.3.2: Code of Construction Practice (CoCP) (Doc Ref. 5.3) and ES Appendix 5.3.2: Code of Construction Practice Annex 1 - Water Management Plan (Doc Ref. 5.3).</p>
National Highways	The need for the CCR assessment to take account of strategic road network (SRN) infrastructure	The SRN has been included in ES Chapter 12: Traffic and Transport (Doc Ref. 5.1) and subsequently assessed as part of the ICCI assessment. Highway improvements to road infrastructure receptors, such as those of the SRN, are included as part of the Project design and would reduce the stress on the existing network. In addition, new highway infrastructure would be designed to appropriate climate change allowances, minimising any future flood risk to the highway network during operation of the Project. The ICCI assessment includes road infrastructure receptors (ie SRN) as defined in ES Chapter 12: Traffic and Transport (Doc Ref. 5.1).

Consultee	Details	Response
Betchworth Parish Council; Brockham Parish Council; Surrey County Council; Environment Agency	The need to produce a Flood Risk Assessment (FRA) and the need for flood risk modelling to factor in the consequences of climate change. Surface water and fluvial flooding mitigation measures should be designed in alignment with this assessment.	<p>The Project complies with national planning policy around FRA and includes mitigation measures (additional drainage attenuation tanks to store additional runoff and floodplain compensation areas to store displaced fluvial floodwater) to ensure that there is no increase in flood risk to other parties, including an allowance for the predicted impacts of climate change. Environment Agency climate change allowances (2022) have informed the basis of the design to reduce flood risk. The ES Appendix 11.9.6: Flood Risk Assessment (Doc Ref. 5.3) has shown that there is no increase in flood risk, either fluvial or pluvial, as a result of the Project.</p> <p>Embedded mitigation to reduce surface water flood risk includes additional storage within the airfield drainage network and ponds, tanks and oversized pipes within the highways drainage network. Mitigation to reduce fluvial flood risk includes compensatory flood storage areas.</p> <p>The mitigation measures for surface water have been designed to ensure no increase in flood risk up to and including a 1 in 100 year event with 25% and 40% climate change allowances for the airfield and highways improvements respectively given the projected difference in design life between the two sets of assets.</p> <p>The mitigation measures for fluvial flooding have been designed to ensure no increase in flood risk up to and including a 1 in 100 year event with a 20% climate change allowance in line with the longest design life of the highways assets</p>
Historic England	The potential effect of climate change on groundwater conditions and the subsequent effects on archaeological preservation environments	These effects are considered in ES Chapter 7: Historic Environment (Doc Ref. 5.1), paragraph 7.6.46. ICCI regarding change in groundwater conditions is also part of the ES Appendix 15.9.1: In-combination Climate Change Impacts Assessment (Doc Ref. 5.3). Potential change on groundwater conditions is considered unlikely.
West Sussex County Council	Recommendation for the ICCI of heat undermining foundations and damaged buildings to be considered	ICCI regarding building foundations is part of the ICCI Assessment under the Historic Environment. Potential shrinkage in drought conditions is considered unlikely because ground conditions comprise Weald clay and sands. Additionally, buildings in the vicinity have shallow or no footings, so the number and type of foundations at risk of being impacted by drying out of soils are limited.
West Sussex County Council	Need to clarify impact scoring of ICCI	In addition to the full ICCI Assessment, ES Appendix 15.9.1: In-combination Climate Change Impacts Assessment (Doc Ref. 5.3), the methodology and approach to impact scoring is set out in Section 9 of ES Chapter 15: Climate Change (Doc Ref. 5.1).
West Sussex County Council	Need for a cumulative assessment (in relation to the Climate chapter)	A cumulative assessment has not been undertaken within ES Chapter 15: Climate Change (Doc Ref. 5.1) – see Section 8 of ES Chapter 15: Climate Change (Doc Ref. 5.1) for explanation. Heathrow expansion is not being considered for the main assessment due to the level of uncertainty associated with it. It is addressed as a separate sensitivity test to the cumulative effects assessment in the ES, ES Chapter 20: Cumulative Effects and Inter-relationships (Doc Ref. 5.1), in the event this does come forward.
AECOM	The need to present key documentation used, referencing all appropriate existing reports	A full list of key documentation referenced is provided in Section 13 of ES Chapter 15: Climate Change (Doc Ref. 5.1).

3 Glossary

3.1 Glossary of Terms

Table 3.1.1 Glossary of Terms

Term	Description
CCR	Climate Change Resilience
DCO	Development Consent Order
ES	Environmental Statement
FRA	Flood Risk Assessment
GAL	Gatwick Airport Limited
ICCI	In-combination Climate Change Impacts
PEIR	Preliminary Environmental Information Report
SRN	Strategic Road Network
UHI	Urban Heat Island