

Gatwick Airport Northern Runway Project

Environmental Statement

Appendix 15.3.1: Summary of Stakeholder Scoping Responses – Climate Change

Book 5

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1 Introduction

1.1 General

- 1.1.1 This document forms Appendix 15.3.1 of the Environmental Statement (ES) prepared on behalf of 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 stakeholder scoping responses relevant for **Chapter 15**: **Climate Change** (Doc Ref. 15.1) for the Project and how they have been taken into account in the ES.

2 Summary of Stakeholder Scoping Responses

Table 2.1.1: Summary of Stakeholder Scoping Responses

| Consultee | Date | Details | How/where taken into account in ES |
|-------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crawley Borough Council (CBC) | 30 September 2019 | CBC considers that the increase in buildings and hardstanding on the airport as a result of existing and proposed developments (Table 4.6.1) and the Project itself, may create an urban heat island effect, and that the impact from this should be included in the In-Combination Climate Change Impacts (ICCI) assessment. | An Urban Heat Island (UHI) assessment has been carried out which compared the temperatures between an urban city location (London City Airport), a rural location (Charlwood) and Gatwick Airport. Evaluation of current conditions at these sites during average and heatwave conditions highlighted that temperatures at the airport are slightly higher than those in a nearby rural site, see ES Chapter 15: Climate Change (Doc Ref. 5.1). This effect is particularly pronounced in night-time temperatures which are, on average, 1.0°C higher at Gatwick airport but 1.4°C higher during a heatwave event. However, this UHI effect is low compared to the one for London. It is anticipated that climate change would contribute to a slight increase in the UHI effect at Gatwick Airport. Temperatures are projected to increase across all three sites included within this assessment, see ES Chapter 15: Climate Change (Doc Ref. 5.1). The developed site would have increased impervious surface cover and buildings due to the extension of the taxiways, hotels and car parks, among other features. Impervious surface cover such as this contributes to the UHI effect. UHI effects in combination with climate change would increase the impact of higher temperatures local to Gatwick Airport. It is not expected that the Project would create a new UHI effect, but that the increased impervious surface cover and buildings alongside projected increases in temperature from climate change could exacerbate the increase in the UHI effect at the Project site itself, local to the airport and not the wider area, particularly at night. However, this UHI effect is low. Further information can be found in ES Appendix 15.5.2: Urban Heat Island Assessment (Doc Ref. 5.3). |
| Environment Agency | 20 September 2019 | The production of a Flood Risk Assessment (FRA) in accordance with the planning practice guidance and National Planning Policy Framework (NPPF) is noted, this is certainly a requirement of this proposal. The FRA should incorporate the latest guidance on climate change, this aspect is referenced as part of section 7.5.15. The FRA should clearly demonstrate how the risk to flooding from both fluvial and surface water will not be increased as a result of any development on the site. Due to the timeline of this project, it is feasible that updated guidance could be released on factors such as climate change, flood risk extents and planning or policy guidance associated with | The FRA has shown that there is no increase in flood risk, both fluvial and pluvial, as a result of the Project. Further information can be found in the ES Appendix 11.9.6: Flood Risk Assessment (Doc Ref. 5.3). The Project complies with national planning policy around Flood Risk Assessment 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. |



| Consultee | Date | Details | How/where taken into account in ES |
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| | | flood risk during the development phase of this project. GAL should be prepared to implement new guidance/policy as appropriate, and this may result in changes to the baseline scenarios. | |
| Historic England | 1 October 2019 | In reference to Paragraph 7.1.25: Potential climate change effects on the historic environment are dismissed but we would suggest that there may be some effects, eg climate generated change in hydrology and ground water conditions may affect archaeological preservation environments through drying out of soil or rapid changes in ground saturation. | These effects are considered in section 6 of ES Chapter 7: Historic Environment (Doc Ref. 5.1). 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) under the Historic Environment. Potential change on groundwater conditions is considered unlikely. |
| Mid Sussex District Council | 1 October 2019 | It is recommended that the relevance to the assessment of each policy or legislation is fully noted as part of the Preliminary Environmental Information Report (PEIR) or ES. | The assessment has considered relevant policy, see ES Chapter 15: Climate Change (Doc Ref. 5.1). |
| Reigate and Banstead Borough Council | 27 September 2019 | Following the adoption of the Development Management Plan (DMP), references to the "emerging Reigate & Banstead Borough DMP 2018-2027" should be amended to "Reigate and Banstead DMP (Reigate and Banstead Borough Council, 2019)" to ensure consistency with other adopted Local Plan documents. References to saved Borough Local Plan Policy Hr2B "Quality & Sustainable Development (within Horley)" also needs to be removed from the policies and legislative requirements section following adoption of the DMP. | The policy table 15.2.2 in ES Chapter 15: Climate Change (Doc Ref. 5.1) refers to "Reigate and Banstead DMP 2019". The Local Plan Policy Hr2B is not referred to in the ES. |
| West Sussex County Council | | In reference to Paragraph 7.1.25: Climate change should be included as it is likely to affect the historic environment baseline over the assessment period through increased heat and rainfall undermining foundations and damaging buildings. | This point was raised with ES Chapter 7: Historic Environment (Doc Ref. 5.1) topic for response and taken account in the ICCI assessment (ES Chapter 15: Climate Change (Doc Ref. 5.1) and ES Appendix 15.9.1 Incombination Climate Change Impacts Assessment (Doc Ref. 5.3)). |
| West Sussex County Council | | In reference to Paragraph 7.9.8: The Climate Change Act 2008 (2050 Target Amendment)(Order 2019) should be included in the list of key legislation. | The amended Climate Change Act is referenced in ES Chapter 15: Climate Change (Doc Ref. 5.1) and ES Chapter 16: Greenhouse Gases (Doc Ref. 5.1. Where relevant, this has been taken into account for the assessment of greenhouse gases emissions. |
| West Sussex County Council | | In reference to Paragraph 7.9.11: The list of Guidance Documents should include the National Adaptation Programme. | The National Adaptation Programme (NAP) is included in the Legislation section of ES Chapter 15: Climate Change (Doc Ref 5.1). |
| West Sussex County Council | | In reference to Paragraphs 7.9.15 and 7.9.18: The ICCI assessment should consider the impact of the heat island effect resulting from works proposed to 2038 (including additional concrete/hardstanding/buildings), as set out in table 4.6.1 | See comment above in response to Crawley Borough Council's comment on UHI. |
| West Sussex County Council | | In reference to Paragraph 7.9.34: The cumulative impact of the Project along with other airport projects, particularly the Heathrow expansion, should be considered. | A cumulative assessment has not been undertaken within ES Chapter 15 : Climate Change (Doc Ref. 5.1) and is accompanied with an 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 ES Chapter 20 : Cumulative Effects and Inter-relationships (Doc Ref. 5.1) in the event this does come forward. |



| Consultee | Date | Details | How/where taken into account in ES |
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| West Sussex County Council | | In reference to Paragraph 7.9.39: The assessment of future impact should consider the heat island effect of increased concrete/hardstanding/buildings. | See comment above in response to Crawley Borough Council's comment on UHI. |
| West Sussex County Council | | In reference to Table 7.9.3: This should explicitly include: the potential impact of increased drought/storm weather on runway surfaces through cracking; overheating in buildings; and health impacts on staff during construction/operation. | These points are discussed in ES Chapter 15: Climate Change (Doc Ref. 5.1). |
| Waverley Borough Council | | The climate change baseline presented in the scoping request report deals with increases in temperature and of greenhouse gas emissions. The area that would be affected by the development, in terms of the greenhouse gas emissions attributed to the relevant boroughs should be included as part of the EIA. Aviation is set to be the biggest source of UK emissions by 2050. The assessment should include a cumulative impact of CO2 emissions arising from both the proposed Gatwick and Heathrow expansions and how these may impact on Waverley Borough residents and businesses as well as the environment, biodiversity and habitat. | Heathrow expansion is not being considered for the main assessment due to the level of uncertainty associated wit it. It is addressed as a separate sensitivity test to the cumulative effects assessment in ES Chapter 20: Cumulative Effects and Inter-relationships (Doc Ref. 5.1) in the event this does come forward. |
| Tandridge District Council | 30 September 2019 | Paragraph 7.9.8 of the Environmental Impact Assessment Scoping Report should include as key legislation the Climate Change Act 2008 (2050 Target Amendment) Order 2019. This sets out the Government's commitment in relation to carbon emission reductions by 2050 and should be central to the assessment of climate change in the ES. | The amended Climate Change Act is referenced in ES Chapter 15: Climate Change (Doc Ref. 5.1) and ES Chapter 16: Greenhouse Gases (Doc Ref. 5.1). Where relevant, this has been taken into account for the assessment of greenhouse gases emissions. |



3 References

Climate Change Act (2008), c.27 (as amended).

Department for Transport (2013) Aviation Policy Framework.

Department for Transport (2018) Aviation 2050 - the future of UK aviation.

4 Glossary

Table 4.1.1: Glossary of Terms

| Term | Description |
|-----------------|------------------------------------------------------|
| CBC | Crawley Borough Council |
| CO ₂ | Carbon Dioxide |
| DMP | Development Management Plan |
| EIA | Environmental Impact Assessment |
| ES | Environmental Statement |
| FRA | Flood Risk Assessment |
| GAL | Gatwick Airport Limited |
| ICCI | In-combination Climate Change Impacts |
| IEMA | Institute of Environmental Management and Assessment |
| NAP | National Adaptation Programme |
| NPPF | National Planning Policy Framework |
| PEIR | Preliminary Environmental Information Report |
| UHI | Urban Heat Island |