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Environment Agency

The Planning Inspectorate
Major Applications and Plans
Temple Quay House
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Our ref: KT/2024/131869/01
20035862
Your ref: TR020005

Date: 21 August 2024

Dear Planning Inspectorate Team

Gatwick Airport Northern Runway Application Development Consent Order Environment Agency response - Deadline 9

Comments on any further information/submissions received by Deadline 8

We have reviewed the submissions and have the following comments to make.

The Applicants Response to Deadline 7 Submissions – Book 10 – Version 1.0 – August 2024

Table 3.1.3. Environmental Statement: Chapter 5 Project Description

We welcome to update to the ES Chapter 5: Project Description and draft DCO to include references to flood mitigation syphons features. The further details on Substation L are also noted, we now understand this work has been completed as part of a previous resilience works at the Airport. We welcome the confirmation of the height of the weir associated with the fish pass in the River Mole, and the updates that have been made to the ES Chapter 5: Project Description and Design Principles.

Environmental Statement Appendix 11.9.6: Flood Risk Assessment Annex 7 – Culvert Assessment

The corrections in Table 4.1 and in the corrected version of the document are noted.

Flood Compensation Delivery Plan Technical Note: Document Reference 10.42 Version 1.0

This document has been updated to reflect our comments made at Deadline 7, with Version 2.0 of this document now available. We have reviewed Version 2.0 and have included comments on this updated version here.

Previously, we suggested adding reference to flood conveyance syphons to Section 1.2.2 of the Flood Compensation Delivery Plan (FCDP). It is recognised the syphons are mentioned in Section 3.3.7 of the FCDP and they have been added to the draft DCO following our comments at Deadline 6. In addition, the syphons beneath the noise bund are included in the Design Principles.

Section 3.3.3 discusses the South Terminal IDL extension. We note that in the flood risk modelling the extension has been modelled as a solid building at ground level rather than stilts, with the suggestion being this would offer a conservative estimate of flood risk. Although it appears the increase in flood risk would be localised and can be managed through the measures set out within ES Appendix 11.9.6: Annex 6 Flood Resilience Statement, this aspect should be considered again as the project developed, for example, during the detailed design stage. We are aware this aspect is also being considered as part of the review process for the with-scheme flood risk modelling.

It is noted that the Work Nos as set out in section 3.3.10 should not result in an increase in flood risk to any third party, with the ES Appendix 11.9.6: Annex 6 Flood Resilience Statement demonstrating how the future safety of staff and passengers during a flood event would be managed.

Paragraph 3.3.11 has been added and refers to the temporary construction compounds. We do note comments are made within the ES Appendix 5.3.2 Code of Construction Practice Annex 1 – Water Management Plan which commit to managing flood risk during the construction phases. This aspect will be important, further work will be required on this aspect when the temporary construction compounds and works are designed to ensure that flood risk is not increased, even on a temporary basis.

The applicants' comments on Work Nos. 38b-f, 31a, 31d-f and 39f are noted. This would need to be carefully considered at the detailed design stage and through the Flood Risk Activity Permitting process. Should thoughts change and land raising required, the applicant should be able to clearly demonstrate that flood risk will not be increased. This also applies to Work Nos. 38e and f, where through detailed design and the Flood Risk Activity Permit process it can be clearly demonstrated the access bridges do not increase flood risk.

We note the content of paragraphs 7.2.12 – 7.2.13 of ES Appendix 11.9.6 Flood Risk Assessment in relation to the proposed weir and fish pass and how they have been assessed within the flood risk modelling.

As no additional detail on the increase in impermeable area associated with the footbridge footings north-east of Longbridge roundabout are available at present, this must be revisited at the detailed design stage. Through detailed design and the Flood Risk Activity Permit process, the applicant must demonstrate flood risk is not increased due to the presence of this structure.

The applicant has confirmed the FCDP will focus on fluvial risk only, with the mitigation of surface water flood risk being secured through Parameter Plans and

Design Principles. We previously commented that there are influences between the two forms of flood risk. As the intention is to focus on the fluvial only flood risk within the FCDP, the Parameter Plans and Design Principles related to surface water mitigation should be clear in the timings of the surface water mitigation delivery to ensure this form of flood risk is suitably managed at all stages.

We welcome the confirmation the FCDP will be a living document and will evolve and be updated throughout the detailed design process.

The content of the added paragraphs 5.1.4 and 5.1.5 are noted. This is helpful is understanding any differences between Table 5.1 and Figure 5.1, as well as the sequencing of Work Nos.31 and 39.

The addition of colour coding to Table 5.1 is helpful to better understand the impact of each of the Work Nos on flood risk, and actions to be taken to mitigate against this risk. The addition of the map within Version 2.0 of the FCDP also aids with this understand and offer a visual reference to the location of the various Work Nos being discussed.

Section 3.3.7 sets out the location and Work Nos. of the syphons. In Table 5.1, the syphons associated with the Western Noise Mitigation Bund (Work No.18) are mentioned within the 'Comments' column. The syphons associated with Taxiways West and East (Work Nos. 4f and 4g) and the Active Travel Path (Work No. 36p) are not mentioned within Table 5.1, although these items are flagged a red, requiring mitigation prior to construction. Setting these syphon features out within Table 5.1 would quickly highlight which Works Nos. these are associated with.

We have made a comment elsewhere in our response to Deadline 8 about the sequence in which the Car Park X and Museum Field FCAs are delivered to ensure there is no increase in flood risk elsewhere at any point in the construction phase of the project, as well as post development. It is suggested the culvert beneath the runway flows more efficiently with the presence of the Car Park X FCA, passing a greater volume of flows downstream which are then captured by the Museum Field FCA. Therefore, the sequence in which the FCAs are delivered should be carefully considered with details updated in the FCDP.

<u>Appendix 11.9.6: Flood Risk Assessment Version 3.0 June 2024</u>
Further information is offered by the applicant around climate change for peak river flow and the 100-year lifetime of the development. Previously, the applicant has suggested using the 40% uplift as a proxy to consider the 7 years beyond 2125. The applicant has now also linearly extrapolated the higher central allowance of 20% for the additional 7 years to 2132, with the result a suggested 1.27% uplift. Although it would be useful to see some additional detail on this extrapolation, such as more

description on methodology or the information in a graphical format within the Flood Risk Assessment (FRA), this additional work suggests the use of the 40% uplift as a proxy is reasonable to consider the additional 7 years lifetime of the development.

At Deadline 7, we asked for further detail on the increase in peak flows downstream of the flood compensation area (FCA) at Car Park X. The applicant suggests this is due to the culvert beneath the runway being able to flow more efficiently due to flows being attenuated by the Car Park X FCA, with this increase in flows being captured by the Museum Field FCA, thereby not leading to an overall increase in flows passing downstream of the Airport.

This does highlight the importance of the overall flood risk management strategy for the proposed development, clearly there would be an unacceptable increase in downstream flow if the Museum Field FCA was not delivered alongside the Car Park X FCA.

The sequencing of the construction of the FCAs is also important. The applicant should take this into consideration at the detailed design phase and take this onboard for construction sequencing. As this is important for the overall management of fluvial flood risk the Flood Compensation Delivery Plan (FCDP), as a living document, should also take this into account and be updated as necessary.

The applicant has provided additional details on the timings of the flood peak from the River Mole passing downstream from the Airport for the with-scheme scenario.

The hydrograph provided and the associated mapping, namely Figures 7.2.3, 7.2.4, 7.2.5 and 7.2.6 in ES Appendix 11.9.6: Flood Risk Assessment (Version 3.0) indicate the flood peak is not subject to an increase downstream of the Airport with all fluvial mitigation in place and operational. Based upon the information available, this suggests the presence of the FCAs on the River Mole would not significantly change the timing of the peak flow in relation to that on the Gatwick Stream. It would be prudent for Figure 2.1 as shown on the Applicant Response to Deadline 7 Submissions to be shown within the Flood Risk Assessment for completeness.

We previously posed a question about the potential consequence of failure of the proposed FCAs at Museum Field and Car Park X. The applicant has responded stating that as the FCAs are a distance from the River Mole, the consequence of their failure should not result in the release of a large volume of water into the river. Although not located immediately adjacent to the watercourse, should the FCAs fail to operate or their design capacity be exceeded, understanding this consequence in terms of flow routes and receptors should be considered.

Section 8.2 Appendix 11.9.6 Flood Risk Assessment – Annex 5 River Mole Fluvial Model Build Report discusses the removal of mitigation measures from the 2D domain for the undefended with-model scenario. It does appear the proposed FCAs and syphons have been removed from the modelling, the Flood Risk Assessment is then signposted for refer to for more detail. If the applicant could confirm where in the FRA this detail it set out, it would be helpful to see.

We note the applicant has referenced the ES Appendix 5.3.2 Code of Construction Practice Annex 1 – Water Management Plan and the updates to the Flood Compensation Delivery Plan Technical Note which contain commitments to suitably manage flood risk throughout the construction phase.

We see the FCDP as a living document to be updated as the project progressed, with further detail added to the Code of Construction Practice Water Management Plan as more detail became available.

Flood Compensation Delivery Plan Technical Note - Version 2.0 August 2024
The Flood Compensation Delivery Plan (FCDP) has been updated to consider our comments made at Deadline 7. We have made our comments on this updated document, Version 2.0, as part of our feedback above on the Applicant Response to Deadline 7 Submissions Version 1.0 August 2024.

As we have previously highlighted, the FCDP is an important document in ensuring the flood mitigation measures are delivered at the correct time to ensure fluvial flood risk is not increased at any stage of the project. We welcome the confirmation the FCDP will be a living document and will evolve and be updated throughout the detailed design process.

Environmental Statement Appendix 11.9.6 Flood Risk Assessment – Annex 7 – Culvert Assessment – Version 2.0 – August 2024
Table 4.1 – We note and welcome the changes to the ‘Works’ column within this table to clarify the proposed works to each of the culvert identified.

The report identifies that further and more detailed assessment would need to be carried out to assess blockage risk and consequence for the identified culverts. This should be carried out as the project progresses to a more detailed stage.

Environmental Statement Chapter 5: Project Description Project Version 6 – August 2024
Paragraph 5.2.93 Western Noise Mitigation Bund – we note and welcome the addition of the reference to the installation of syphons beneath the proposed new bund to maintain floodplain connectivity.

Paragraph 5.2.187 Weir and Fish Pass – we note and welcome the clarification of the height of the weir (300mm) to be provided within the River Mole.

Design and Access Statement - Appendix 1 - Design Principles - Version 6
On-airport Wastewater Treatment Works ('On-airport WWTW') (Work No. 44) DBF65
This document states "This may include lower but more regular discharge to maintain flow and river levels, with discharge consent to be discussed and agreed with the Environment Agency. Climate projections will also inform the choice of the final design and room for future flexibility".

Unless the proposed system is a batch process, we would expect a steady fluctuating flow through the works therefore this statement is irrelevant. The potential use of greywater would also bring in the possibility of classification of a trade effluent depending on the source. These matters would however be worked through a potential permitting process.

Environmental Statement Appendix 5.3.2 Code of Construction Practice - Annex 8 - Outline Invasive and Non-Native Species Management Strategy - Version 2
The document references an outdated document (2006) Japanese knotweed Code of Practice (amended 2013). This has been superseded by The Invasive Non-Native Specialists Association (INNSA). We recommend this is updated if possible.

Mink control - there could be benefit for the strategy and site management team to be aware of the newly established mink-trapping project being jointly run by ZSL (under the Water vole recovery project) and Waterlife Recovery Trust - technically focusing on Greater London bounds, but there is ambition for landscape wide trapping effort upcoming for the next couple of years. We will ask for landowners and volunteers to support this.

Engaging with us and the Mole Catchment group would help to ensure Gatwick's efforts contribute and support a catchment approach.

If you require any further information, please do not hesitate to contact me.

Yours sincerely

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