

Gatwick Airport Northern Runway Project

The Applicant's Response to Deadline 7 Submissions

Book 10

VERSION: 1.0 DATE: AUGUST 2024 Application Document Ref: 10.65 PINS Reference Number: TR020005

APFP Regulations 5(2)(a) Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Table of Contents

1	Introduction 1		
2	Communities Against Gatwick Noise and Emissions (CAGNE)		
3	Env	rironment Agency	1
4	Joir	nt Local Authorities	1
	4.1	Overview	1
	4.2	Good Design	1
	4.3	Air Quality	3
	4.4	Environmentally Managed Growth Framework	3
	4.5	Noise	4
	4.6	Ecology, Landscape and Arboriculture	5
	4.7	Parking	5
5	Leg	al Partnership Authorities	5
	5.1	Overview	5
	5.2	Draft Development Consent Order	5
	5.3	Health and Wellbeing	6
	5.4	Noise	6
6 National Highways		6	
	6.1	Water	6
7	Tha	imes Water	8
	7.1	Water Environment	8
8	Eas	t Sussex County Council	8
	8.1	Transport	8
9	We	st Sussex Joint Local Authorities	9
	9.1	Overview	9
	9.2	Works Plans – For Approval	9
	9.3	Parameter Plans – For Approval	10



9.4	Project Description	10
9.5	Water Environment	10
Append	dix A: Response to Deadline 7 Submission on the Draft DCO	

Appendix B: Response to Submissions on Arboriculture, Landscape and Ecology

Appendix C: Response to the JLAs' EMG Framework Paper

Appendix D: Response to Submissions on CC.2.1 (Finch)



1 Introduction

- 1.1.1 This document has been prepared to set out the Applicant's response to submissions received at Deadline 7. As per previous deadlines, the Applicant is mindful of the volume of information already submitted into the examination and has sought to limit the duplication of submissions it has already made on certain subjects. As such, the Applicant has not responded to every submission or point made and does not repeat submissions to one interested party where equivalent responses have been made to the same submission made by another party; instead, it has responded by exception where the submission raises a new matter and/or where the Applicant considers such a response may be helpful to the ExA. Silence on an issue, therefore, should not be interpreted as agreement but instead a recognition of the approach taken by the Applicant in this document.
- 1.1.2 The document has been structured by Interested Party. The specific Deadline 7 responses addressed are:
 - Environment Agency [<u>REP7-100</u>, <u>REP7-101</u>]
 - Joint Local Authorities [<u>REP7-102</u>, <u>REP7-103</u>]
 - Legal Partnership Authorities [<u>REP7-107</u>, <u>REP7-108</u>, <u>REP7-110</u>]
 - National Highways [<u>REP7-114</u>]
 - Thames Water [<u>REP7-119</u>]
 - West Sussex Joint Local Authorities [<u>REP7-120</u>]



2 Communities Against Gatwick Noise and Emissions (CAGNE)

- 2.1.1 In Appendix A [REP7-128] to their Deadline 7 response, Suono (on behalf of CAGNE) made a number of submissions in response to the Applicant's Noise Envelope and related submissions from Deadline 6. Limited further submission is considered necessary by the Applicant in response; however, by exception, the Applicant has commented in relation to discrete elements below. The key new points raised in Appendix A [REP7-128] by Suono (on behalf of CAGNE) can be summarised as follows with the Applicant's response.
 - The minor error in the Noise Envelope identified at paragraph 8.3.3 is corrected in the version of the Noise Envelope submitted at Deadline 8.
 - Noise modelling for the updated central case fleet in 2047 is now reported in a revision of the ES Addendum: Updated Central Case Aircraft Fleet Report (Doc Ref. 5.3 v3).
 - The Applicant does not propose to remodel ground noise with the updated central case fleet but rather will use the slower transition fleet assessment as the worst case because ground noise effects are similar, and that assessment forms the basis of noise mitigation, including noise insulation.
 - The updated central case is not expected to change passenger numbers or road traffic vehicle forecasts, so the road traffic noise assessment does not require revision.
- 2.1.2 The Applicant has provided a response to the submissions made by other interested parties in response to ExQ2 CC.2.1 and the Supreme Court judgment in Finch in Appendix D to this response to Deadline 7.



3 Environment Agency

- 3.1.1 With respect to the Environment Agency's response to ExQ2 [<u>REP7-100</u>], the Applicant agrees with the response by the Environment Agency regarding the potential use of a New Appointment and Variation (NAV) company and that any permit application will be considered at a later stage.
- 3.1.2 The Applicant continues to engage in productive discussions with the Environment Agency consenting team on their likely requirements for a permit to be granted.
- 3.1.3 The below table sets out the Applicant's response to the Environment Agency's submission [<u>REP7-101</u>] at Deadline 7.

Relevant Document	Environment Agency's Comment	The Applicant's Response
Environmental Statement: Chapter 5 Project Description Version 5	The absence of reference to the flood mitigation syphon features in both the project description and supporting figures, especially Figure 5.2.1e, does not make it fully clear whether these features are to be provided.	The Applicant has updated ES Chapter 5: Project Description (Doc Ref. 5.3 v6) at Deadline 8 to include reference to the flood mitigation syphons. It should also be noted that the Applicant revised the draft Development Consent Order [REP7-005] at Deadline 7 to reference the use of syphons/culverts in the Works descriptions (Schedule 1) in response to the Environment Agency's Deadline 6 submission [REP6- 098].
	Section 5.2.164 mentions the protection of Substation L from flooding. It is unclear whether this relates to fluvial or surface water flooding, what the	Substation L has been flood protected. Works included flood doors, tanking of lower walls, sealing pit and duct and cables, snorkel air bricks and sump pump. The

	works would consist of and when they would be carried out in relation to the overall project.	protection of Substation L from flooding has been undertaken as part of wider critical asset flood resilience work.
	It is unclear whether floodplain compensation for Substation L would be necessary. It would be helpful if the applicant was able to offer more information on this aspect.	The Applicant does not consider that compensation would be necessary because the works to protect the existing substation are minor and the loss of floodplain is minimal and therefore too small to warrant compensation.
	Section 5.2.187 discusses the installation of a 200mm high weir and fish pass to improve fish passage through the existing River Mole culvert. However, in section 7.2.12 of the Flood Risk Assessment it is stated this weir is to be 300mm in height.	The Applicant confirms that this is an error in Section 5.2.187 of ES Chapter 5 Project Description [REP6-013]. A corrected version of ES Chapter 5: Project Description (Doc Ref. 5.1 v6) has been submitted at Deadline 8.
	noight.	As stated in Design Principle DBF62 of the Design Principles (Doc Ref. 7.3 v6), the weir on the southern entrance to the River Mole runway culvert (Work No. 42(b)) will be 300mm high.
Flood	Our previous comments on the draft DCO also	As above, the dDCO [<u>REP7-005</u>] was updated at
Compensation Delivery Plan Technical Note:	highlighted the syphons appear to be omitted from Work descriptions. Although these syphons are mentioned in section 3.3.7 with the suggestion they will be secured through the Design Principles, for	Deadline 7 to include syphons in the Works descriptions in response to the Environment Agency's Deadline 6 submission [<u>REP6-098</u>].



Document	completeness and to ensure delivery, we suggest the	
Reference	syphons should be mentioned within Section 1.2.2.	
10.42 Version		
1.0	Section 3.3.3. discusses the extension of the South Terminal IDL and that this would be raised on stilts. Although the use of stilts would minimise the impact on storage capacity within the fluvial floodplain, we would ask the applicant to offer further information on the overall footprint of the stilts and the potential for floodplain loss as a result.	The exact location and footprint of the stilts supporting th South Terminal International Departure Lounge (IDL) will be determined at the detailed design stage. The detailed design must be carried out in accordance with the Desig Principles (Doc Ref. 7.3 v6), which sets out that the South Terminal IDL extension (Work No. 23(a)) will be over Levels 10, 20, 30 and 40 (i.e. not ground level) under Design Principle DBF29. ES Appendix 11.9.6 Flood Risk Assessment [REP6- 052] has assessed flood risk to and from the South Terminal IDL extension at ground level. This has demonstrated a localised increase in water levels (Figures 7.2.4 and 7.2.6). The ES Appendix 11.9.6: Annex 6 Flood Resilience Statement [REP5-027] demonstrates how GAL manages flood risk at the airport to ensure safety for passengers and staff. As the South Terminal IDL extension has been included in the Upper Mole model as a solid building at ground level, this provides a conservative estimate of flood risk, compared to when the IDL extension sits on stilts.

It is noted that ecological planting, landscaping and access works at Museum Field (Work Nos 38b – f), landscaping and surface access improvements at Car Park X (Work Nos 31a, d-f) and ecological measures at the River Mole (Work No 39f) should not require land raising and due to the sequence of overall Work Nos 31, 38 and 39, the fluvial mitigation measures (Work Nos 31b-c, 38a and 39a-e) would be delivered first. This should be clearly agreed as part of the development of the FCDP and the overall	It is not intended that Works Nos. 38b-f, 31a, 31d-f and 39f will require land raising. However, this is to be resolved at the detailed design stage and will be subject to a Flood Risk Activity Permit from the Environment Agency. Nonetheless, these works would be constructed alongside the fluvial mitigation works which will mitigate any flood risk impact of these works.
DCO. It is noted that Work Nos 38e-f are for the construction of a footbridge and two farm access bridges as part of the Museum Field works. These bridges should be designed not to restrict flood flows, so careful consideration would need to be given to the soffit heights of these structures for example to clearly demonstrate they will not restrict flood flows.	The footbridge and two farm access bridges as part of the Museum Field works (Work Nos. 38(e) and 38(f)) have been submitted as part of the application in outline but will be subject to the detailed design stage. The detailed design process will consider the soffit heights of these structures to demonstrate they will not restrict flood flows. The works would also be subject to a Flood Risk Activity Permit from the Environment Agency as the structures are over Main Rivers or within the floodplain.
Is the applicant able to confirm that the provisions of a weir and fish pass (Work No 42) have been considered within the Flood Risk Assessment (FRA)	Paragraph 7.2.12 - 7.2.13 of ES Appendix 11.9.6 Flood Risk Assessment [<u>REP6-052</u>] demonstrate that the

where it is demonstrated their presence does not lead to an increase in flood risk, and whether it is possible for the weir and fish pass to be put in place prior to fluvial mitigation being fully delivered.	weirs impact on flood risk has been assessed and would not affect flood risk outside the DCO boundary.
Is the applicant able to offer a figure for what the increase in impermeable area associated with the footbridge footings northeast of Longbridge Roundabout would be?	The footbridge north-east of Longbridge Roundabout (Work No. 40(a)) has been submitted as part of the application in outline but will be subject to the detailed design stage. The works would also be subject to a Flood Risk Activity Permit from the Environment Agency.
We would suggest the syphons or flood relief culverts required to maintain floodplain connectivity and flow routes are also listed in Section 1.2.2. of this report and it feels prudent for them to be specifically listed under the relevant Works No within the Draft DCO. It is suggested in the FCDP that Requirement 10 of the draft DCO (surface and foul water drainage) should secure the delivery of the syphons	As above, the dDCO [REP7-005] was updated at Deadline 7 to include syphons in the Works descriptions in response to the Environment Agency's Deadline 6 submission [REP6-098] Paragraph 3.3.8 of the Floodplain Compensation Delivery Plan Technical Note [REP6-069] also notes that the syphons beneath the noise bund are included in the Design Principles (Doc Ref 7.3 v6), secured by DCO Requirement 10 in respect of surface and foul water drainage design. The syphons beneath the noise bund and on the airfield are included within Design Principles DBF4 and DDP13.

Section 3.3.10 list works which are suggested can take place prior to the fluvial mitigation works being delivered without increasing flood risk to other parties during the construction phase. Flood risk on-site will be increased in place because of these works. The applicant should ensure there are measures in place to suitably manage this risk. Paragraph 3.3.2 of the **Floodplain Compensation Delivery Plan Technical Note** [REP6-069] states that the replacement of the Fire Training Ground (Work No. 14) would not involve ground raising and therefore can be constructed prior to the construction of the Fluvial Mitigation Works. There would be a localised increase in flood depths to the northern side of the relocated Fire Training Ground, however GAL's management of this to ensure the future safety of staff and passengers is demonstrated through **ES Appendix 11.9.6: Annex 6 Flood Resilience Statement** [REP5-027].

The South Terminal International Departure Lounge (IDL) Extension (Work No. 23(a)) is also listed within those works which can be constructed in advance of the construction of the Fluvial Mitigation Works, despite being within the floodplain. This extension would be elevated with stilts and open to first floor level and hence would not impact fluvial flood risk within or outside the DCO Boundary.

The response to an increase in flood risk on-site is set out in **ES Appendix 11.9.6: Annex 6 Flood Resilience Statement** [REP5-027] which demonstrates how the safety of passengers and staff would be maintained



	during a flood event (including the management flow chart during such event) and which is secured by DCO Requirement 24.
Section 4.1.3 notes the FCDP relates to only, with the mitigation of surface water being secured through Parameter Plans Principles. Although fluvial and surface w risk do have differences, the two sources also related and can influence the other flood risk, especially on and adjacent to development site. Setting out how the su risk may be better summarised within a s document to the FCDP for fluvial risk, wi recognising the linkages between fluvial water risk. An Integrated Catchment Mod also been prepared for this project and t from that modelling could be considered the FCDP as this would help demonstration between the two forms of flooding.	flood risk and Design vater flood s of risk are source of the urface water similar th the FCDP and surface del (ICM) has ne outputs as part of
This information will need to be updated the latest and most detailed information within the FCDP, this requirement for the a living document should be secured thr	is contained to evolve throughout detailed design and therefore will be updated accordingly.

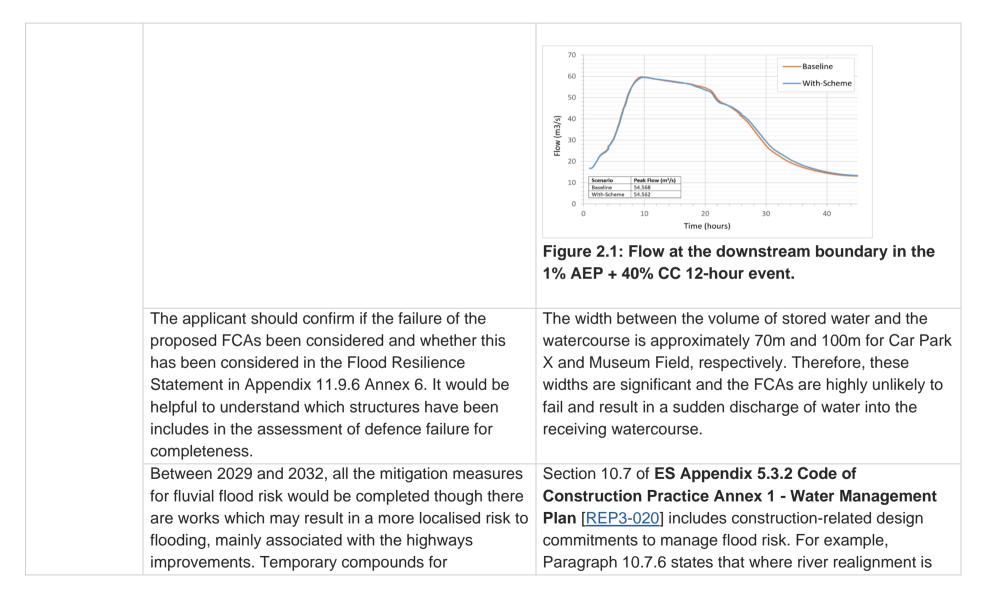
	DCO, for example being included as suggested within Requirement 23.	
	Table 5.1 is helpful in setting out the Work Nos, whether they are in the floodplain and whether it is considered mitigation needs to be provided prior to their construction. Two Figures are also included, 1.1 and 1.2, which are also helpful in depicting the extent of the 1 in 100-year + 16% modelled floodplain extent and the location of various works. If Table 5.1 could be colour coded depending on the category of the works (in/out of floodplain, mitigation measure, mitigation required or not) it would help to make this Table easier to understand. In addition, if this colour coding could also be used on an additional map that showed the various works with their associated Work Nos as set out in the draft DCO and used within the FCDP Technical Note, it would again make the	The Applicant has updated the Flood Compensation Delivery Plan Technical Note (Doc Ref. 10.42 v2) at Deadline 8 to improve clarity within Table 5.1 and add an additional corresponding map.
Environmental	FCDP easier to understand.	The Applicant confirms that this is an error in Table 4.4 a
Statement	In Annex 7, the nature of any works to EX-CU3 should be clarified. In Table 4.1 it is suggested this	The Applicant confirms that this is an error in Table 4.1 or ES Appendix 11.9.6 Annex 7: Culvert Assessment
Appendix	culvert is 'existing to be extended' but in Table 2.1	[REP6-054]. A corrected version of Annex 7: Culvert
11.9.6: Flood	the works are that	Assessment (Doc Ref. 5.3 v2) has been submitted at
Risk	it remains 'unchanged'.	Deadline 8.
Assessment –		



Annex 7 –		Culvert EX-CU3 will remain unchanged with the Project.
Culvert		
Assessment		
Appendix 11.9.6: Flood Risk Assessment Version 3.0 June 2024	The approach to use the 40% uplift as a proxy and make an extrapolation using the Upper End climate change allowance for the 7 years beyond 2125 would suggest the risk to fluvial flooding would still be manageable for that timeframe with the proposed fluvial mitigation measures in place and fully functional. This could be seen as a reasonable proxy for longer term impacts of climate change on peak river flows. However, the applicant may wish to assess the potential climate change impacts by extrapolating the higher central allowance, 20% climate change, for those additional 7 years, or further if desired. We would not suggest a specific extrapolation methodology, this would be for the applicant to decide and to share with us for comment.	Linearly extrapolating the higher central allowance, 20% climate change for 2015-2125, for the additional 7 years to 2132, suggests a potential uplift of 1.27% between 2125 and 2132. Therefore, the use of the Upper End, 40% climate change allowance provides a conservative approach.
	Section 7 of the FRA contains information around the flood mitigation features to be included, with signposting given to ES Appendix 11.9.6: Annex 5 for some further outline details on the proposed Flood Compensation Areas (FCAs) at Museum Field and Car Park X. It is noted that the presence of the	Paragraph 6.2.13 of ES Appendix 11.9.6: Annex 5 Fluvial Model Build Report [REP5-027] indicates the increase in peak flows downstream of Car Park X FCA are likely due to the attenuation of the FCA to allow for the River Mole culvert to flow more efficiently, resulting in the increase in flows. However, this could not extend

FCA at Car Park X appears to increase peak flows downstream of this FCA. It is suggested the presence of the Museum Field FCA further downstream would capture this increase in flows so overall, the flood risk elsewhere would not be increased. It would be helpful to understand more about why the flows downstream would be subject t increase with the Car Park X FCA in place, and whether any measures can be incorporated into the design of the FCA at Car Park X to negate the suggested increase in flows.	
The FRA should also consider whether the introduction of the FCAs on the River Mole would result in any impact on flood peaks travelling further down the River Mole, especially after the confluence of the River Mole and the Gatwick Stream. As water will be attenuated in both Car Park X and Museum Field, is there likely to be any impact on the coincidence and timing of flood peaks from the Gatwick Stream and River Mole as they travel further along the River Mole downstream of the Airport?	 downstream of the NRP boundary which is considered sufficient to fully assess any potential downstream effects. Figures 7.2.3, 7.2.4, 7.2.5 and 7.2.6 in ES Appendix 11.9.6: Flood Risk Assessment [REP6-052] indicate the Project would not increase flood depths to







Longbridge Roundabout and at Car Park B would be	proposed, construction activities should be planned to
located within areas at risk to fluvial flooding and the	ensure no increase in fluvial flood risk, with temporary
design of these compounds should not lead to any	mitigation provided if required.
increase in flood risk. The methodology around the	
use of a floating barge and how the risk to flooding	The Applicant has updated the Flood Compensation
would be managed with that in situ would need to be	Delivery Plan Technical Note (Doc Ref. 10.42 v2) at
fully considered. The Flood Compensation Delivery	Deadline 8 to reference these commitments.
Plan should include information about these	
elements for completeness.	



4 Joint Local Authorities

- 4.1 Overview
- 4.1.1 The sections below respond to the points raised in the JLAs' submissions [REP7-102, REP7-103] at Deadline 7, arranged by topic (where necessary).

4.2 Good Design

- 4.2.1 At Deadline 7, the Applicant submitted a comprehensive response on designrelated matters contained in **Appendix A** of **The Applicant's Response to Deadline 6 Submissions** [] and in response to ExQ2 [REP7-078 to REP7-093], where relevant to design. Alongside this design response, the Applicant submitted new and revised documents to respond to Interested Parties' designrelated comments, including Deadline 6 responses from the Legal Partnership Authorities [REP6-107, REP6-110 and REP6-111]. The new and revised documents included:
 - Draft DCO [<u>REP7-005</u>];
 - Works Plans [<u>REP7-018</u>];
 - Parameter Plans [<u>REP7-020</u>];
 - Informative Sub-Works Plans [<u>REP7-021</u>];
 - Design and Access Statement (Volumes 1 to 5) [A<u>S-154</u> to AS<u>-156</u> and REP7-059 and REP7-061];
 - Design Principles [<u>REP7-063</u>], including Annex A: The Design Adviser's role and process.
- 4.2.2 The Applicant considers that its submissions made at Deadline 7 respond to and address matters raised in Section 17 of the Joint Local Authorities' Response to the Applicant's Deadline 6 Submissions [REP7-103]. For the benefit of the JLAs and the ExA, the Applicant has drawn out below where matters in Section 17 were responded to at Deadline 7.
- 4.2.3 Action Point 4: Car Park Y Delivery Plan (paragraph 17.1) the delivery of Car Park Y was explained in the Applicant's response to ExQ2 GEN.2.14 [REP7-083], including an explanation of the sequencing of the works and how the design will consider the relationship between the compound, attenuation facility and car parking proposals. To provide additional comfort to the JLAs, the site-specific Design Principle for Car Park Y (DBF50) [REP7-063] added at Deadline 7 makes clear that the design of each component must have regard to other elements and demonstrate that it does not preclude the development of the remaining area.

- 4.2.4 Action Point 8: Level of detail in the Design Principles and list of works where detailed design approval is required (paragraph 17.2) the Applicant considered and responded to the Legal Partnership Authorities' comments on the Design Principles (Version 4.0) [REP5-031] (on pages 18 to 23) and Schedule 12 of the Draft DCO (Version 7.0) [REP5-005] (on pages 24 to 52) in Appendix A: Response on Design Matters [REP7-096]. Alongside the Applicant's response, it submitted an updated Draft DCO [REP7-005] and Design Principles [REP7-063] at Deadline 7 corresponding to the changes described in the response.
- 4.2.5 Insofar as the JLAs maintain their previous submissions in respect of the absence of design 'approval' provided in relation to elements of the authorised development (paragraphs 17.3 and 17.4), the Applicant does not consider their submissions materially add to those which they have submitted previously on this topic and to which Applicant comprehensively responded in Action Point 8 from ISH8 [REP6-089]. They appear to continue to maintain there is absence of design 'control' in the Applicant's approach, which the Applicant's response to Action Point 8 makes clear is not the case. They submit there is an absence of precedent for the Applicant's approach, which is clearly not determinative of whether or not the approach is justified, and is in any case, unsurprising considering there has been only one Airport DCO consented to date and which has a very different consenting/operational context (Manston Airport) to that which exists at Gatwick. The Applicant maintains its previous submissions on this point and does not believe the JLAs have produced evidence to challenge its position beyond conceptual/in-principle objections that do not, respectfully, engage with the detail that GAL has put forward in response.
- 4.2.6 Action Point 9: Design issues relating to construction compounds (paragraph 17.5) the Applicant responded to the Legal Partnership Authorities' design concerns on the construction compounds in Appendix A: Response on Design Matters [REP7-096] (pages 52 to 61). Alongside the Applicant's response, it submitted an updated Code of Construction Practice [REP7-022] at Deadline 7 to secure design controls for specific construction compounds in Section 4.5.
- 4.2.7 Action Point 10: Changes to elements specified in paragraph 1.4.1 of Annex A (paragraph 17.6) the Applicant considered and responded to the Legal Partnership Authorities' comments on the works specified to be subject to an independent Design Adviser's review in Appendix A: Response on Design Matters [REP7-096] (pages 64 to 73). Alongside this, the Applicant submitted updated Design Principles (including Annex A) [REP7-063] at Deadline 7 providing an expanded list of works in paragraph 1.4.1 of Annex A.



4.2.8 Action Point 11: Amendments to the wording of paragraphs 1.6.3 to 1.6.5 of Annex A (paragraph 17.7) – the Applicant's position on the wording of paragraph 1.6.3 remains as contained in **The Applicant's Response to ISH8 Actions: Good Design** [REP6-086].REP6-086]. In respect of stakeholder involvement and the role of the Design Adviser, this is set out in Section 1.3 of Annex A. Further clarity is required from the JLAs on the specifics of their concerns.

4.3 Air Quality

4.3.1 The sub-sections below respond to the air quality points made in the JLAs' submission [REP7-103].

Construction Dust Management Plan Review from AECOM

4.3.2 The Applicant has revised the **Construction Dust Management Strategy** (Doc Ref. 5.3) (CDMS) to respond to the remaining queries on the CDMS and submitted this revised document at Deadline 8.

Air Quality Action Plan review from AECOM

- 4.3.3 In paragraph 20.9 the JLAs refer to the AQAP items AQ2, AQ3, AQ4, AQ12, AQ9, AQ10 and AQ12 which relate to SAC measures, their effectiveness, monitoring and enforcement.
- 4.3.4 The Applicant has been liaising with the JLAs on the review of air quality matters summarised by AECOM, including matters which relate to SAC measures. The latest engagement took place at the JLA Air Quality Topic Working Group meeting on 6 July 2024. In addition, the Applicant has provided a response on these items at **Appendix C Response to the JLAs' EMG Framework Paper** (Doc Ref. 10.65).
- 4.3.5 In paragraph 20.11 the JLAs refer to the AQAP item AQ11 (Hydrogen Fuels). The role of hydrogen is set out at action AB2 of the Carbon Action Plan [<u>APP-091</u>]. The watching brief includes an evaluation of hydrogen use, which will include consideration of how hydrogen may affect local air quality.
- 4.4 Environmentally Managed Growth Framework
- 4.4.1 The Applicant has prepared a separate response to the JLAs' EMG Framework proposal detailed in their Deadline 7 submissions [REP7-102]. Please see
 Appendix C Response to the JLAs' EMG Framework Paper (Doc Ref. 10.65).



4.5 Noise

- 4.5.1 The paragraphs below provide a response to the points raised in the JLAs' comments on noise in their Deadline 7 submission [<u>REP7-103]</u>.
- 4.5.2 At paragraph 15.20, the JLAs refer to one additional awaking as SOAEL. The Applicant's position on the significance of one additional awakening remains that it is not significant on an individual and does not warrant noise insulation, always remembering that awakenings are a change in sleep state typically occurring 20 times a night in a healthy individual, the majority of which go unnoticed. The awakenings study is fully reported in ES Appendix 14.9.2. No new work has been reported in the Joint Local Impact Report [REP1-097].
- 4.5.3 At paragraph 15.19 the JLAs note "*it is clear from CAP2251 that there are circumstances where just using the LAeq,8h measure to reflect the number of additional noise induced awakenings is insufficient*". It is well known that Leq is not a good indicator of noise impact when there are very few noise events, but at Gatwick there are more than 125 night flight noise events in the 8 hour night, so Leq is a good indicator. The ANPS required Heathrow to implement a ban on flights in part of the night if a third runway was built which would have meant fewer noise events at night at Heathrow. Hence it may have been appropriate for Heathrow to propose a Noise Insulation scheme if a third runway had been built that included an awakening criterion if it were to have very few flights at night, but this is not the case at Gatwick as the CAP2251 Figure 2 contours show.
- 4.5.4 At paragraph 15.43, the JLAs note "Heathrow's noise insulation scheme covers the area where >1 additional awakening would occur; & anywhere that already exceeds the one awakening and experiences an increase as a result of the proposal defined as the SOAEL. This is a precedent that the JLAs would like to see the Applicant follow". To be clear, this proposal for a Noise Insulation Scheme related to the Heathrow third runway was not progressed. Heathrow does not currently have a noise insulation scheme based on one additional awakening. Also, as discussed in the Noise Topic Working Group on 18 July and noted no UK airport has adopted this approach to noise insulation.
- 4.5.5 At paragraph 15.4, the JLAs note they have "set their detailed comments out on the noise insulation scheme at Deadline 5 in [REP5-094] and the Applicant did not address that at Deadline 6 preferring to meet". The Noise Topic Working Group held on July 18th used this list of 30 comments as the agenda for a helpful discussion on the various aspects of the NIS, including how it addresses overheating. The NIS (Doc Ref. 5.3 v3) has subsequently been revised and is resubmitted at Deadline 8.

- 4.5.6 At paragraph 15.46, the JLAs consider that the Applicant should include internal noise levels despite recognising the Applicant's response that it wouldn't be reasonable to rebuild a home if made of poorly insulated materials. The Applicant notes that government noise policy operates in the context of the government's policy on sustainable development. This recognises that preferred noise levels cannot necessarily be achieved in all circumstances i.e. it wouldn't be reasonable to rebuild a home if made of poorly insulated materials. The proposed NIS includes all reasonable measures to reduce internal noise in the context of the government's policy on sustainable development, consistent with the NISs on other airport projects.
- 4.5.7 At paragraph 15.48, the JLAs ask for a specific requirement for "the Applicant to confirm whether the frequency content of aircraft noise is accounted for e.g. for road traffic noise, glazing would require an Rw+Ctr specification to account for low frequency content of road traffic noise". The Applicant can confirm that the NIS specifies the acoustic performance as Rw+Ctr >= 35 dB, and that for the avoidance of any doubt the frequency content of aircraft noise is accounted for.
- 4.6 Ecology, Landscape and Arboriculture
- 4.6.1 The Applicant has responded to the matters raised in relation to ecology, landscape and arboriculture at **Appendix B** to this document.
- 4.7 Parking
- 4.7.1 The Applicant has responded to the matters raised in relation to car parking in **The Applicant's Response to Rule 17 Letter Parking** (Doc Ref. 10.64).

5 Legal Partnership Authorities

- 5.1 Overview
- 5.1.1 The sections below respond to the points raised in the Legal Partnership Authorities' submissions [<u>REP7-107</u>, <u>REP7-108</u>, <u>REP7-110</u>] at Deadline 7, arranged by topic.
- 5.2 Draft Development Consent Order
- 5.2.1 The Applicant has provided a response to the comments on Schedule 1 [<u>REP7-108</u>] at **Appendix A Response to Deadline 7 Submissions on the Draft DCO** (Doc Ref. 10.65).



5.3 Health and Wellbeing

- 5.3.1 The Applicant has reviewed the response from the Legal Partnership Authorities to ExQ2 HW.2.8 [REP7-110] and the response from the Legal Partnership Authorities to ExQ2 HW.2.8 [REP7-110].
- 5.3.2 These responses were discussed at the ISH9 and the Applicant's comments are provided in the Written Summary of Oral Submissions ISH9: Socio-Economics (Doc Ref. 10.62.4). An updated Construction Communications and Engagement Plan (Doc Ref. 5.3) has been submitted at D8.

5.4 Noise

5.4.1 In their submission [REP7-110], the Legal Partnership Authorities set out their responses to ExQ2. In response to NV.2.8 the LPAs note "It is important to allow noise contours to be contextualised through provision of noise data from individual aircraft. This would allow any material changes in aircraft noise levels to be identified, which is important to understand when future aircraft come into service or in the event of a force majeure. It is requested that the Applicant provide the measured SEL and LAmax noise levels logged as part of their Noise and Track Keeping system. This data should cover the aircraft that make up 75% of the total noise energy as per CAP2091. The data should be provided in the Annual Monitoring and Forecasting Reports". Table 2 of ES Appendix 14.9.7 **The Noise Envelope** [REP6-055] lists the secondary noise metrics that will be reported annually. These include the Airport Fleet Average Aircraft Noise Lmax dB, which is defined as the average Lmax noise level from all aircraft measured under the Departure Noise Limits monitoring regime over the summer. It is agreed that when reporting the average, the measured noise levels making up this average will also be reported statistically.

6 National Highways

6.1 Water

- 6.1.1 The text below sets out the Applicant's response to the points made in relation to the water environment in National Highways' Deadline 7 submission [REP7-114].
- 6.1.2 National Highways has requested the Applicant provides the calculation sheets used to assess culvert capacity in ES Appendix 11.9.6: Flood Risk
 Assessment Annex 7: Culvert Assessment [REP6-054].



- 6.1.3 Section 3 of ES Appendix 11.9.6: Flood Risk Assessment Annex 7: Culvert Assessment [REP6-054] details the assessment approach for determining culvert sizing, including the catchment and flow estimation. As noted in Section 3.1 of the Culvert Assessment [REP6-054], the hydraulic assessment/flow estimations have followed ReFH2 methodology, incorporating climate change allowance in accord with Environment Agency guidance. The estimated flows used to determine the hydraulic capacities for existing and proposed culverts are calculated using Figure A7.1 and A7.2 from the CIRIA guidance C786 (Culvert, Screen and Outfall Manual) (2019): Figure A7.1 for pipe culverts and Figure A7.2 for box culverts.
- 6.1.4 As an example of an assessment of hydraulic capacity estimated for a pipe culvert, using Figure A7.1: for estimated flow of 0.1 m3/s with a headwater/barrel height ration of 1 (pipe full conditions), the required pipe size will be 375mm. Similarly for box culverts, using Figure A7.2: for estimated flow of 1 m3/s and a box width of 1m, with headwater/barrel height ratio as 1 (box full conditions), the required height of the box will be 800mm (giving a box size of 1m wide x 0.8m deep). It is noted that proposed culverts will be provided with free board as detailed in Section 3 of the Culvert Assessment [REP6-054].
- 6.1.5 Table 3.1 of the **Culvert Assessment** [REP6-054] summarises the hydraulic assessment, estimated flows, hydraulic sizing and final adopted culvert sizing with commentary on the adequacy of existing culverts. Therefore, the information provided in the **Culvert Assessment** [REP6-054] is sufficient to support the assessment of hydraulic capacity undertaken at this preliminary design stage and no additional information is considered to be necessary. As recommended in the **Culvert Assessment** [REP6-054], the hydraulic capacity assessment would need to be reviewed at detailed design once the requested survey information is received, at which point the updated assessment and associated calculations would be made available for review.



7 Thames Water

7.1 Water Environment

- 7.1.1 The text below sets out the Applicant's response to the points made in relation to the water environment in Thames Water's Deadline 7 submission [REP7-119].
- 7.1.2 The Applicant has reviewed the response from Thames Water Utilities Limited ('TWUL') to ExQ2 WE.2.2 and WE.2.3 [REP7-119].
- 7.1.3 As stated in TWUL's Response to WE.2.2, GAL has committed to provide funding for the surveys required for the Phase 2 modelling studies, and is progressing discussions with TWUL in this regard.
- 7.1.4 With respect to TWUL's request to include two new-sub-clauses within Schedule 2, paragraph 10 of the Draft DCO, which would require GAL to agree a development phasing plan with TWUL prior to any increase in discharge to TWUL's network, the Applicant does not consider it appropriate to introduce a DCO requirement that makes the growth of the airport conditional on TWUL's approval of flow modelling. The Applicant has explained in previous submissions (see, for example, section 2.3 of the Second Change Application Report [REP6-072]) that it considers this would introduce unacceptable uncertainty to the delivery of the Project and which has prompted the proposed alternative waste-water treatment works option under the dDCO (via the recent Project Change 4). The Applicant reiterated its position during Agenda Item 3 in ISH9 (see paragraphs 3.1.30 and 3.1.31 of the Applicant's Written Summary of Oral Submissions ISH9: Mitigation (Doc Ref. 10.62.2).
- 7.1.5 The Applicant is continuing negotiations with TWUL regarding the impact of the Project on TWUL's local wastewater network and sewage treatment facilities. As noted during the ISH9 hearing, the Applicant has included a new requirement 36 in Schedule 2 to the Draft DCO (Doc Ref. 2.1) submitted at Deadline 8. The rationale for the drafting of this requirement is explained in the response to Action Point 3 in the Applicant's Response to Actions ISH9: Mitigation (Doc Ref. 10.63.2) (see paragraphs 4.1.4 to 4.1.6).

8 East Sussex County Council

8.1 Transport

8.1.1 The sections below respond to the points raised in the East Sussex County Council submission at Deadline 7 [REP7-099] in respect of the request for



inclusion of the need for improved bus service provision between East Sussex and Gatwick Airport.

- 8.1.2 The Applicant has responded to these matters in the Statement of Common Ground GAL and East Sussex County Council [REP5-040] at point 2.20.4.1. As the Applicant has previously explained, the services requested by East Sussex County Council have not been ruled out for receiving funding despite not being included in Table 1 of the SACs. Commitment 5 requires reasonable financial support to be provided for the services stated in Table 1, or others which result in an equivalent level of public service transport accessibility. 'Public transport accessibility' is defined for the purpose of Commitment 5 and includes 'the ease to which passengers and staff have access to public transport services in catchment areas that are not currently served by direct bus/coach or rail connections in order to provide a viable alternative to car travel from those areas'.
- 8.1.3 The Applicant is required to consult the TFSG on the details of the routes and operational timetable. It is expected that during that process of engagement with the TFSG (which includes East Sussex County Council as a member) that additional services (including those requested by East Sussex County Council) would be assessed in order to identify the routes and services which maximise the potential of achieving the mode share commitments. In practice, the Applicant will be in discussions with the relevant highway authorities about the details of any proposed network enhancement affecting their area, in order to optimise the service provision in advance of implementation of those services.

9 West Sussex Joint Local Authorities

9.1 Overview

9.1.1 The sections below respond to the points raised in the West Sussex Joint Local Authority submission [REP7-120] at Deadline 7, arranged by topic.

9.2 Works Plans – For Approval

9.2.1 As explained in Section 2.5 of the Second Change Application Report [REP6-072], the wastewater works associated with the on-airport Wastewater Treatment Works facility do not need to be specified in the works number (and therefore do not need to be included in the relevant area on the Works Plans) because such works can be delivered as ancillary or related development under the latter part of Schedule 1 of the Draft DCO (Doc Ref. 2.1 v10), most pertinently paragraph (b).



9.2.2 This arrangement is also applicable to other pipeline and pumping station works proposed as part of the Project where these are not specified in the Works descriptions.

9.3 Parameter Plans – For Approval

- 9.3.1 The Applicant responded to the **Legal Partnership Authorities' Response to Actions Arising at ISH8** [REP6-111] submitted at Deadline 6, including comments on the Parameter Plans, at Deadline 7 i.e. at the next available deadline after having sight of these comments.
- 9.3.2 The Applicant's response to REP6-111 is contained in Section 1.4 of the Applicant's **Response on Design Matters** [REP7-096] which was submitted alongside updated **Parameter Plans** [REP7-020].

9.4 Project Description

9.4.1 The pipeline and pumping station east of the railway have been added back to ES Figure 5.2.1e Proposed Surface Water and Foul Water Improvements, version 5.0 with a label stating these works would be delivered as an either / or scenario depending on the On-airport WWTW.

9.5 Water Environment

9.5.1 The table below sets out the Applicant's response to points raised in relation to the water environment in the West Sussex Joint Local Authorities' submission at Deadline 7 [REP7-120].



Reference	Relevant Document	Comment	The Applicant's Response
7.1	ES Appendix 11.9.6 Flood Risk Assessment Version 3	The Executive Summary has been updated to explain the use of a 60-year design life for the airfield works, with a 25% allowance for climate change. WSCC, as LLFA retains the position from [REP6-116] that a higher allowance of 40% should be applied to the airfield works. Comments on this are included in the Statement of Common Ground [REP5- 055, Table 2.21, Reference 2.22.4.4]. This was then raised again at ISH7 [REP4-058].	The Applicant reiterates its position and explanation as to why a variable design life has been adopted for the Project
7.2	ES Appendix 11.9.6 Flood Risk Assessment Version 3	The Applicant has accepted the fact that the 100-year design life for the highways elements would extend to 2132, seven years beyond the end of the 2080's epoch of 2125 and has come to a conclusion that based on current predictions, an additional seven years of climate change beyond 2125 would not impact significantly on the assessment of flood risk for the Project. Furthermore, the Applicant has	Environment Agency guidance on the consideration of climate change in relation to rainfall intensity (for surface water drainage design) for flood risk assessments sets out how to consider impacts beyond the year 2100. The guidance states that the Upper End allowance should be adopted, which has been followed for the Project as stated in the FRA (Paragraphs 0.1.22 and 3.7.14) [REP6-

stated that a Credible Maximum Scenario	052].REP6-052]. If extrapolating linearly
(CMS) sensitivity test using a 1% AEP and	beyond 2125 to determine the further climate
40%CC has assessed the impact of the	change that could occur by 2132 (an
Project in the event of climate change impacts	additional seven years) this would amount to
and has shown that the additional seven years	an additional 2.5% (based on 40% increase
beyond 2025 would not impact significantly on	between 2015 and 2125) which it is
the assessment of flood risk for the Project.	anticipated would be accommodated within
This scenario is only known to the Applicant	the existing outline design. The proposed
and there is a difference between mitigating	surface water drainage designs are subject to
for a 1% AEP + 20%CC and carrying out a	submission and acceptance by the LLFA as
sensitivity test using a 40%CC and mitigating	stated in Requirement 10 of Schedule 2 the
using a 1% AEP+ 40%CC. Except the	dDCO [<u>REP7-005</u>].
Applicant is trying to postulate that based on	
the flood map the mitigating features based on	
20%CC allowance will be the same as using a	
40%CC allowance. If this is not the case and	
in the absence of any other evidence then the	
Authorities would prefer the Applicant to use a	
1% AEP with 40%CC to design the mitigation	
features. This is a more practical approach to	
consider for the time period between 2125 and	
2132 in relation to the design of the flood	
compensation/mitigation strategy.	



7.3	ES Appendix	While it may be true that using a 40%CC to	The FRA [REP6-052] demonstrates that the
	11.9.6 Flood Risk	design the mitigation features might encroach	Project's flood risk mitigation strategy ensures
	Assessment	on the available land and impact the proposal	there is no increase in flood risk to other
	Version 3	to provide additional facilities to cater for the	parties and that the development would be
		Northern runway that is intended to be brought	safe for its lifetime (as stated in paragraphs
		into operation. The Applicant has agreed that	0.1.10, 0.1.14, 0.1.24 and Section 7 of the
		without mitigation the Project would increase	FRA).
		flood risk to other parties due to the	
		encroachment into and truncation of the	
		floodplain. Therefore, the Authorities consider	
		that need for a robust mitigation should	
		outweigh the consideration for land take.	
		Furthermore, the Project should not be about	
		just doing the minimum, but the Applicant	
		should use this opportunity to improve and	
		provide robust mitigation features in a	
		mitigation strategy has been developed to	
		address this and ensure flood risk is not	
		increased to other parties and that the	
		development is safe for users for its lifetime.	
7.4	ES Appendix	The need to consider residual risk as a criteria	The residual risk of flooding has been fully
	11.9.6 Flood Risk	and guide for the mitigation strategy is	accounted for as reported in Section 7 of the

Assessment	highlighted in the Applicant's response as it is	FRA [REP6-052] The Project would result in
Version 3	stated that both the airfield and the surface	an increase in flood risk within the airport only
	access works will increase the impermeable	(FRA Figures 7.2.3, 7.2.4, 7.2.5 and 7.2.6) but
	area and that the airfield surface water	ES Appendix 11.9.6 Annex 6: Flood
	mitigation demonstrates that there would be	Resilience Statement demonstrates that GAL
	increases in flood depths on the	has robust response procedures to respond to
	airfield compared to the baseline. However,	a flood event that would ensure the safety of
	the safety of passengers and staff would be	passengers and staff. The Project would not
	maintained through existing Airport response	necessitate a change in procedures and
	procedures as set out in the FRS. While from	responses to a flood event, however the flood
	the Applicant's position the peak rates of	response procedures are regularly reviewed
	discharge off-site may not increase, resulting	and updated as required by GAL to ensure
	in no increase in flood risk to other parties, this	the continual safety of passengers and staff.
	approach clearly shows that residual risk has	
	not been taken into consideration and the	
	Applicant is relying on existing procedure	
	which may have to be updated or changed	
	after the implementation of the Project as it is	
	clearly stated in the Applicant's D6 response	
	that the Project would increase flood risk	
	within the airport due to encroachment and	
	truncation of floodplain. Moreover, the	
	consideration of residual risk is a statutory	



		requirement as stated in the West Sussex	
		Authorities response at Deadline 6 Section 4, [REP6-116].	
7.5	ES Appendix 11.9.6 Flood Risk Assessment Version 3	Regarding the adopted lifetime of the airfield works of 40 years, it is understood from desk top studies undertaken by CBC that much of the development that can be classified as airfield structures at Gatwick are approaching forty years in age and are currently in use. Although the Applicant has stated that a joint 100 years mitigation strategy has been developed for both the surface and airfield access works, the Authorities are requesting a categorical statement or further information on these structures will dealt with after 2072.	As stated in The Applicant's Response to Deadline 6 Submissions [REP7-095], GAL cannot at this time speculate as to what will happen to these structures post 2069 (the end of a 40- year airfield design life) or even if they will exist then. But the fluvial mitigation strategy ensures that they will not increase fluvial flood risk beyond this date to at least 2132 based on current climate change projections.
7.6	ES Appendix 11.9.6 Flood Risk Assessment Version 3	At Deadline 6[REP6-116], the Authorities made a case regarding the use of HEWRAT approach for water quality in response to the document produced by the Applicant at deadline 5 [REP5-026]. The Applicant states that the water quality assessment during the operational phase of the proposed Highway works has been assessed using the HEWRAT	The Applicant has previously responded to this query within Section 11.2 of The Applicant's Response to Deadline 6 Submissions [REP7-095].



approach [REP5-026 item 2.1.3, 2.1.4 and
2.1.5], while it has decided to use the SuDS
manual simple index approach to carry out the
car park surface water quality assessment. It
is noted that under 2.1.5 step 3 that the
Applicant has proposed the use of SuDS to
mitigate the potential pollution from the
highway works, but that this is based on the
HEWRAT assessment. Ideally, the Applicant
should use the SuDS manual approach it is
adopting for the car park assessment as the
primary assessment tool for the proposed
highway works since the mitigation features
are SuDS based, but as a minimum the
Applicant should use the SuDS manual
assessment as a secondary control measure
for the operational phase of the Highway
works to prove that water quality assessment
has been properly covered. This approach will
also provide a common assessment tool for all
water quality related matters rather than the
Applicant cherry picking an assessment tool
that suits them on water quality issues.

12.1	REP6-098 –	In their review of The Applicant's Response to	The Applicant reiterates its position and
	Environment	Deadline 4 Submissions [REP5-072], the	explanation as to why a variable design life
	Agency –	Environment Agency have stated that they	has been adopted for the Project.
	Comments on	would support WSCC as LLFA in ensuring	
	Information /	that WSCC have enough information to be	
	Submissions	satisfied with the proposed management of	
	received at D5	surface water. This is in relation to Water	
		Environment Section 2.16 WE 1.6 of [REP5-	
		072], which refers to the design life of the	
		airfield works and the climate change	
		allowance that has been used. WSCC, as	
		LLFA, retains the position from [REP6-116]	
		that a higher allowance of 40% should be	
		applied to the airfield works. Comments raised	
		on this are included in the Statement of	
		Common Ground [REP5-055], Table 2.21,	
		Reference 2.22.4.4). This was then raised	
		again at ISH7 [REP4-058].	