Gatwick Airport Northern Runway Project

Environmental Statement
Appendix 5.2.3: Mitigation Route Map – Clean Version

Book 5

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1 Introduction

1.1. Purpose of This Document

1.1.1 This document is submitted to the Examining Authority in relation to the application by Gatwick Airport Limited (GAL) for development consent under the Planning Act 2008 for the proposal to make best use of Gatwick Airport's existing runways and infrastructure (referred to within this document as 'the Project'). The Project proposes alterations to the existing northern runway which, along with the lifting of the current restrictions on its use, would enable dual runway operations. The Project includes the development of a range of infrastructure and facilities which, together with the alterations to the northern runway would allow airport passenger and aircraft operations to increase.

1.1.2 This **Mitigation Route Map** for the Project has been prepared to demonstrate that all necessary controls, mitigation and commitments of enhancement have been identified and secured.

1.1.3 This document is submitted for information only. This **Mitigation Route Map**:

- provides an audit trail of the controls and mitigation measures on which the Environmental Statement (ES) relies to avoid, reduce and if possible offset significant impacts of the development; and
- sets out the way in which they have been translated into clear and enforceable controls; either via requirements in the DCO, Section 106 obligations or other consent regimes.

1.1.4 This **Mitigation Route Map** is structured by environmental assessment topic with mitigation and potential impacts that mitigation relates to described for each topic. The detail of the assessment and descriptions of the proposed mitigation can be found within each topic chapter of the ES.

1.1.5 The Environmental Statement comprises the following chapters:

- **ES Chapter 7: Historic Environment** [APP-032]
- **ES Chapter 8: Landscape, Townscape and Visual Resources** [APP-033]
- **ES Chapter 9: Ecology and Nature Conservation** [APP-034]
- **ES Chapter 10: Geology and Ground Conditions** [APP-035]
- **ES Chapter 11: Water Environment** [APP-036]
- **ES Chapter 12: Traffic and Transport** [REP3-016]
- **ES Chapter 13: Air Quality** [REP3-018]
- **ES Chapter 14: Noise and Vibration** [APP-039]

- **ES Chapter 15: Climate Change** [APP-040]
- **ES Chapter 16: Greenhouse Gases** [REP4-005]
- **ES Chapter 17: Socio-Economic** [APP-042]
- **ES Chapter 18: Health and Wellbeing** [APP-043]
- **ES Chapter 19: Agricultural Land Use and Recreation** [APP-044]
- **ES Chapter 20: Cumulative Effects and Inter-Relationships** [APP-045]

1.1.1 **ES Chapters 1: Introduction** [APP-026] **and ES Chapter 2: Planning Policy Context** [APP-027] set out the context of the ES and the planning policy of relevance to the Project. **ES Chapter 3: Alternatives Considered** [APP-028], **ES Chapter 4: Existing Site and Operation** [APP-029] and **ES Chapter 5: Project Description** (Doc Ref. 5.1) describe the existing site and how the existing infrastructure is currently used and then what the proposals of the Project include and what alternatives were considered in forming those proposals. **ES Chapter 21: Summary of Effects** [APP-046] has been prepared to collate the conclusions of the assessments which form part of the ES into one place.

1.1.2 **ES Chapter 6: Approach to Environmental Assessment** [APP-031] sets out the approach to environmental assessment that has been used throughout the ES. In some respects, the appropriate mitigation and enhancement measures have been 'designed-in' to the Project. As such, when the 'assessment of effects' has been carried out, it has been done on the basis that many measures are already built in.

1.1.3 Measures that can be assumed to be part of the Project include normal good practice guidance documents (e.g. for the control of dust, noise and pollution during construction). Other measures that are adopted include implementation of the landscape strategy and biodiversity enhancements.

1.2. Securing Mechanisms

1.2.1 GAL has given careful consideration to how the mitigation measures which have been relied upon to reach the conclusions of the EIA have been legally secured. A specific reference to the securing mechanism for each mitigation measure has been included in the "securing mechanism" column within the route map. The principles behind the consenting strategy are set out in Chapter 5 of the **Planning Statement** [APP-245].

1.2.2 The two main control documents are the **Draft Development Consent Order** (DCO) (Doc Ref. 2.1) and the **Section 106 Agreement** [REP6-064]. The DCO is expected to be granted by the Secretary of State following the close of the

examination and Schedule 2 of the DCO sets out requirements which are specific to the delivery and operation of the Project which must be complied with. The Section 106 Agreement is a contract between GAL and the local authorities which will include obligations that must be complied with.

1.2.3 **Table 5.2** of the **Planning Statement** [APP-245] sets out GAL's initial, proposed approach to the Heads of Terms for the Project under a new Section 106 Agreement and the requirements to be secured within the DCO.

1.2.4 The construction and operation of the Project would be delivered within a context of the relevant legislative regimes. GAL will comply with all relevant legislation as it carries out the Project. Where relevant, this has been included in the securing mechanism column of the mitigation route map.

1.2.5 Beyond the DCO and Section 106 Agreement there are other consents and licences which are required before works can start on site and need to be complied with through construction and operation as appropriate. The majority of these are listed for each site in the **List of Other Consents and Licences** (Doc Ref. 7.5). These include protected species licences (PSL), permits for water, waste and noise activities and health and safety notifications.

1.3. Control Documents and Subsequent Approvals

1.3.1 The DCO and the Section 106 Agreement are the legal mechanisms requiring GAL to comply with specific "control documents" during the delivery and operation of the Project. In some cases these are secured in final form to be complied with. In other cases, further information is required to prepare the document which must be complied with and an outline/strategy document is submitted and the control document will be subject to an approval prior to the relevant activities taking place.

1.3.2 The **Explanatory Memorandum to the Draft DCO** (Doc Ref. 2.2) explains the obligations and the consenting approach that has been taken. This **Mitigation Route Map** sets out in full the commitments which are required to mitigate the impacts identified in the **Environmental Statement** and where these are secured.

1.3.3 The control documents and their location in the application are set out in **Table 1.3.2**.

Table 1.3.1: Control Documents

Control document	Location in the application

Carbon Action Plan (CAP)	**ES Appendix 5.4.2: Carbon Action Plan** (Doc Ref. 5.3)
Code of Construction Practice (CoCP)	**ES Appendix 5.3.2: Code of Construction Practice** (Doc Ref. 5.3)
Construction Communications and Engagement Plan	**ES Appendix 5.3.2: Code of Construction Practice Annex 7 – Construction Communications Engagement Plan** (Doc Ref. 5.3)
Construction Resources and Waste Management Plan (CRWMP)	**ES Appendix 5.3.2: Code of Construction Practice Annex 5 – Construction Resources and Waste Management Plan** (Doc Ref. 5.3)
Design Principles	**Appendix 1** of the **Design and Access Statement** (Doc Ref. 7.3)
Employment, Skills and Business Strategy (ESBS)	**ES Appendix 17.8.1: Employment, Skills and Business Strategy** [APP-198]
Flood Resilience Statement	**Annex 6: Flood Resilience Statement** contained in **ES Appendix 11.9.6: Flood Risk Assessment – Annexes 3-6** [REP5-027]
Noise Envelope	**ES Appendix 14.9.7: The Noise Envelope** [REP6-055]
Noise Insulation Scheme (NIS)	**ES Appendix 14.9.10: Noise Insulation Scheme** (Doc Ref. 5.3)
Outline Arboricultural Method Statement (AMS)	**ES Appendix 5.3.2: CoCP Annex 6 – Outline Arboricultural and Vegetation Method Statement** (Doc Ref. 5.3)
Outline Construction Workforce Travel Plan (oCWTP)	**ES Appendix 5.3.2: Code of Construction Practice Annex 2 – Outline Construction Workforce Travel Plan** [REP7-024]
Outline Construction Traffic Management Plan (oCTMP)	**ES Appendix 5.3.2: Code of Construction Practice Annex 3 – Outline Construction Traffic Management Plan** [REP7-026]
Outline Landscape and Ecology Management Plan (including the Ecology Strategy) (oLEMP)	**ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan** (Doc Ref. 5.3)
Land Plans	**Land Plans – For Approval** [REP7-017]
Parameter Plans	**Parameter Plans – For Approval** [REP7-020]
Other Plans for Approval	**Crown Land Plans – For Approval** [APP-015] **Special Category Land Plans – For Approval** [REP3-010]

Public Rights of Way Management Strategy (PRoW)	**ES Appendix 19.8.1: Public Rights of Way Management Strategy** (Doc Ref. 5.3)
Rights of Way and Access Plans	**Rights of Way and Access Plans – For Approval** (Doc Ref. 4.6)
Soil Management Strategy (SMS)	**ES Appendix 5.3.2: Code of Construction Practice Annex 4 – Soil Management Strategy** [APP-082]
Surface Access Commitments (SAC)	**ES Appendix 5.4.1: Surface Access Commitments** (Doc Ref. 5.3)
Surface Access Highways – Surface Water Drainage Strategy	**Annex 2: Surface Access Highways Surface Water Drainage Strategy** contained in **ES Appendix 11.9.6: Flood Risk Assessment – Annexes 1-2** (Doc Ref. 5.3)
Surface Access Highways Plans	**Surface Access Highways Plans – General Arrangements – For Approval** [APP-020] **Surface Access Highways Plans – Engineering Section Drawings – For Approval** [REP5-019] **Surface Access Highways Plans – Structure Section Drawings – For Approval** [REP3-014]
Traffic Regulation Plans	**Traffic Regulation Plans – Speed Limits – For Approval** (Doc Ref. 4.9.1) **Traffic Regulation Plans – Classification of Roads – For Approval** [AS-018] **Traffic Regulation Plans – Clearways and Prohibitions – For Approval** [REP3-015]
Water Management Plan (WMP)	**ES Appendix 5.3.2: Code of Construction Practice Annex 1 – Water Management Plan** (Doc Ref. 5.3)
Works Plans	**Works Plans – For Approval** [REP7-018]
Written Scheme of Investigation for Surrey (WSI)	**ES Appendix 7.8.1: WSI for post-consent archaeological investigations – Surrey** [REP7-044]
Written Scheme of Investigation for West Sussex (WSI)	**ES Appendix 7.8.2: Written Scheme of Investigation for post-consent archaeological investigations and historic building recording – West Sussex** (Doc Ref. 5.3)

2 Mitigation Route Map

Table 2.2.1: Mitigation Route Map

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
HE-1	Historic Environment	To mitigate potential harm to buried archaeological remains and historic buildings.	**Written Schemes of Investigation (WSI)** The WSIs set out the process for examining and recording archaeological remains ahead of and during construction to the appropriate level. Anything of little or no archaeological interest would remain in situ. The WSIs include details of when and where further archaeological investigation would be required and how the results of any investigation would be published. The WSIs also set out the methodologies for recording historic buildings prior to demolition and identify those buildings for which recording is required.	Pre-Construction and Construction	WSIs – DCO Requirement 14	**ES Chapter 7: Historic Environment** [APP-032], paragraphs 7.8.3 – 7.8.4
HE-2	Historic Environment	To mitigate potential harm to buried archaeological remains as a result of the Project.	**Construction practices** The establishment of the construction compound at Car Park B North will take into account any archaeological sensitivities. A programme of archaeological evaluation will be undertaken ahead of the establishment of the compound. There will be consideration of how to avoid or minimise light spill across land within the Church Road (Horley) Conservation Area during the construction and particularly at the works by Longbridge Roundabout.	Construction	WSI – DCO Requirement 14 CoCP – DCO Requirement 7	**ES Chapter 7: Historic Environment** [APP-032], paragraphs 7.8.3 – 7.8.4 and 7.9.95
HE-3	Historic Environment	To mitigate potential harm to buried archaeological remains as a result of the Project.	**Establishing the Museum Field Environmental Mitigation Area** The detailed design of the environmental mitigation will take account of the presence of buried archaeological remains. Appropriate mitigation measures may be incorporated into the establishment of the environmental mitigation at Museum Field and land to the north as far as Charlwood Road. No areas of dense tree planting – use of shrubs. Where it is not possible to apply any mitigation measures, the effects would be offset by a programme of further archaeological investigation as set out in the WSI.	Construction	oLEMP – DCO Requirement 8 WSIs – DCO Requirement 14	**ES Chapter 7: Historic Environment** [APP-032], paragraph 7.8.3

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
HE-4	Historic Environment	To eliminate or reduce any potential harm to the significance of a heritage asset as a result of change within its setting.	**Vegetation Retention** Arboricultural and Vegetation Method Statements will be prepared and approved prior to any vegetation or tree clearance, and substantially in accordance with the Outline Arboricultural and Vegetation Method Statement.	Construction	oAVMS – DCO Requirement 28	**ES Chapter 7: Historic Environment** [APP-032], Table 7.8.1
HE-5	Historic Environment	To eliminate or reduce any potential harm to the significance of a heritage asset as a result of change within its setting.	**Additional Planting** Additional trees and woodland would be planted and maintained throughout the lifetime of the Project. Earth shaping, embankments, cuttings or bunds and proposed fences, walls or barriers will be put in place where necessary. Earth shaping, embankments, cuttings or bunds and proposed fences, walls or barriers will be put in place where necessary.	Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 7: Historic Environment** [APP-032], Table 7.8.1
HE-6	Historic Environment	To enable a greater ability to appreciate and understand the significance of a heritage asset as a result of change to the asset and/or within its setting.	**Information boards** Information boards describing the historical features of the area will be erected in the Church Lane (Horley) Conservation Area, on the west side of the River Mole.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 7: Historic Environment** [APP-032], Table 7.8.1 and paragraph 7.9.110
HE-7	Historic Environment	To eliminate or reduce any potential harm to the significance of a heritage asset as a	**Noise Control Measures** GAL proposes a noise envelope that sets limits in terms of the areas of the daytime LOAEL contour Leq, 16 hour day 51 dB, and the night-time LOAEL contour Leq, 8 hour night 45 dB. The LOAEL contours have been chosen because they represent	Operation	Noise Envelope – DCO Requirement 15 Existing legislative regime	**ES Chapter 7: Historic Environment** [APP-032], Table 7.8.1 **ES Chapter 14: Noise and Vibration** [APP-

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		result of change within its setting.	the lowest level of observable adverse effects during the day and night and can be modelled with reasonable accuracy so as to provide forecasts of future performance.			039], paragraphs 14.13.26-14.13.29
HE-8	Historic Environment	To eliminate or reduce any potential harm to the significance of a heritage asset as a result of change within its setting.	**Operational lighting management** Detailed design of the permanent lighting required for the highways improvements at Longbridge Roundabout will consider the proximity to the Church Road (Horley) Conservation Area.	Operation	Design Principles – DCO Requirements 4 and 5	**ES Chapter 7: Historic Environment** [APP-032], paragraph 7.9.95
HE-9	Historic Environment	To enable a greater ability to appreciate and understand the significance of a heritage asset as a result of change to the asset and/or within its setting.	**Public Access in the Conservation Area** The provision of the extension of the footpath to provide access to land within and adjacent to the Church Road (Horley) Conservation Area through the environmental mitigation land at Longbridge Roundabout.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 7: Historic Environment** [APP-032], Table 7.8.1
LV-1	Landscape, Townscape and Visual Resources	To ensure that visually significant vegetation is retained to minimise adverse effects on visual receptors, protect important views and protect the natural beauty and setting of AONBs.	**Vegetation Retention** Agricultural and Vegetation Method Statements will be prepared and approved prior to any vegetation or tree clearance, and substantially in accordance with the Outline Arboricultural and Vegetation Method Statement. As part of the AVMS, buffers will be created around the vegetation to be retained. Protection fencing will be provided around these buffers and retained trees (including their root protection areas) in accordance with the AVMS and machinery/vehicles will be prohibited from entering the buffer areas.	Construction and Operation	CoCP – DCO Requirement oAVMS – DCO Requirement 28 oLEMP – DCO Requirement 8 Design Principles – DCO Requirements 4 to 6	**ES Chapter 8: Landscape, Townscape and Visual Resources** [APP-033], Table 8.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			The vegetation retention proposals for all elements of the Project will be designed to ensure that visually significant vegetation is retained to minimise adverse effects on visual receptors and protect the natural beauty and setting of the AONBs.			
LV-2	Landscape, Townscape and Visual Resources	To minimise adverse impacts on biodiversity, local residents and users of public rights of way and open space from lighting. Measures to minimise disruption to safety and security.	**Lighting management in construction** Measures that consider sustainable development and are designed to minimise adverse impacts on biodiversity, local residents and users of public rights of way and open space through specifying types of lighting equipment, mounting location, materiality, durability and light source to minimise disruption to safety and security during construction.	Construction	CoCP – DCO Requirement 7	**ES Chapter 8: Landscape, Townscape and Visual Resources** [APP-033], paragraph 8.9.40
LV-3	Landscape, Townscape and Visual Resources	To provide replacement public open space and footpaths to mitigate the loss open space required by the Project.	**Replacement open space** The provision of approximately 1.95 ha of replacement public open space at Longbridge Roundabout and Car Park B together with new footpaths. These would fully mitigate the loss of open space required for the Project, particularly that at Riverside Garden Park and Church Meadows and it would provide additional space to enhance the environment.	Operation	Open space delivery plan – DCO Article 40 oLEMP – DCO Requirement 8 PRoW Management Strategy – DCO Requirement 22	**ES Chapter 8: Landscape, Townscape and Visual Resources** [APP-033], Table 8.8.1
LV-4	Landscape, Townscape and	To ensure that visual screens are provided to minimise adverse effects on visual receptors and provide	**Landscape and Ecology Management Plans** LEMPs will be prepared for each component of the authorised development in accordance with the measures of the oLEMP which set out how that element will be landscaped and the management measures which will be implemented including: • proposed earth shaping, embankments, cuttings or bunds;	Operation	oLEMP – DCO Requirement 8	**ES Chapter 8: Landscape, Townscape and Visual Resources** [APP-033], Table 8.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
	Visual Resources	an opportunity for the creation of diverse habitats. To provide replacement/ compensation features where they have been removed.	• proposed fences, walls or barriers; • proposed hard landscaping; • management of, or implementation of, proposed mitigation to enhance existing green infrastructure including hedgerows, woodland, trees, shrubs, wetland and amenity planting.			
LV-5	Landscape, Townscape and Visual Resources	To minimise adverse impacts on biodiversity, local residents and users of public rights of way and open space from lighting.	**Lighting management in operation** Measures that consider sustainable development and are designed to minimise adverse impacts on biodiversity, local residents and users of public rights of way and open space through specifying types of lighting equipment, mounting location, materiality, durability and light source to minimise disruption to safety and security during operation.	Operation	Design Principles – DCO Requirements 4 to 6 oLEMP – DCO Requirement 8	**ES Chapter 8: Landscape, Townscape and Visual Resources** [APP-033], Table 8.8.1
EC-1	Ecology and Nature Conservation	To minimise the impact of construction on features of ecology and nature conservation value.	**Management of pre-construction surveys** The locations of all pre-construction archaeology, ground investigation and unexploded ordnance surveys would be assessed for their potential impacts on ecology and nature conservation and appropriate mitigation would be implemented. This would include altering survey locations to avoid damage to features of high value and watching briefs to ensure such features are not impacted upon.	Pre-Construction	WSIs – DCO Requirement 14 CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-2	Ecology and Nature Conservation	To minimise loss of habitats of conservation interest.	**Vegetation protection in construction, including Ancient Woodland protection** Measures would be put in place to ensure a minimum 15 metre buffer is retained between ancient woodland and construction areas. Appropriately protection fencing would be erected around the 15 metre buffer to prevent access by people, materials or machinery to avoid compaction of soils or roots and to avoid any accidental damage where practicable.	Construction	CoCP – DCO Requirement 7 oAVMS – DCO Requirement 28	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			Dust suppression methods would be used to reduce the risk of dust deposition on areas of ancient woodland and lighting management measures would prevent increased light spill.			
EC-3	Ecology and Nature Conservation	To reduce impacts on protected or otherwise notable species. reduce the risk of accidental damage during construction activities.	**Tree protection during construction** Measures would be put in place to ensure that bat foraging/commuting habitat and areas of trees are retained are adequately protected from damage or destruction during the construction phase of the Project (including the retained strip of woodland between the Gatwick Stream and new highway alignments). Protective fencing, in accordance with BS 5837, would be erected around retained trees to prevent access by people, materials or machinery.	Construction	CoCP – DCO Requirement 7 oAVMS – DCO Requirement 28	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-4	Ecology and Nature Conservation	To reduce impacts on protected species.	**Protection of Bluebell Bulbs** Where practicable, semi-natural broadleaved woodland due to be lost will be cleared sensitively so that bluebell bulbs could be collected and replanted within new or existing woodland.	Construction	CoCP – DCO Requirement 7 oAVMS – DCO Requirement 28	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-5	Ecology and Nature Conservation	To reduce impacts on protected species.	**Protection of Pennyroyal** Surface access works undertaken along the margins of Pond F, or within close proximity to it, will be undertaken following an ecology method statement and with an Ecological Clerk of Works present to reduce the likelihood of effects on pennyroyal.	Construction	CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-6	Ecology and Nature Conservation	To minimise the impact of lighting during both construction and operational phases on features of ecology and nature conservation value.	**Construction lighting management** Lighting measures to ensure that construction lighting is directed to where it is needed and does not significantly increase levels of artificial lighting on sensitive habitats, such as retained woodland and river corridors. Lighting will be designed in accordance with Institute of Lighting Professionals/Bat Conservation Trust guidelines as appropriate. Construction task lighting will be directed to where it is needed only, to avoid light spillage. Accessories such as hoods, cowls and shields will be used to direct light to the intended area only. Light	Construction	CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			levels will be as low as the guidelines permit. If construction lighting is not needed, it will be avoided.			
EC-7	Ecology and Nature Conservation	To minimise the impact of construction on features of ecology and nature conservation value.	**Construction management measures** Measures for the appropriate storage of materials and fuels and the management of dust during construction activities (such as the breaking up of the existing runway) and runoff (including silt) would be implemented to avoid the pollution of designated sites, ancient woodland and the local water environment during construction.	Construction	CoCP – DCO Requirement 7 Existing legislation	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-8	Ecology and Nature Conservation	To reduce impacts on protected species.	**Nests found during construction** Any nest of a Schedule 1 species found to be active during construction works would be protected by a suitably sized buffer that would be identified by a suitably experienced ornithologist (Ecological Clerk of Works). Where necessary, such nests would be monitored during construction by the ornithologist for signs of disturbance and where necessary methods would be altered to prevent it.	Construction	CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-9	Ecology and Nature Conservation	To reduce impacts on protected or otherwise notable species.	**Habitat removal management** Lower value reptile habitat (as identified by the pre-construction surveys) that could support low numbers of grass snake, such as the drainage ditches and tree lines around and within car parks, would be cleared sensitively with an Ecological Clerk of Works (ECoW) present. Habitat suitable for breeding birds would be cleared between October and mid-February (outside the breeding bird season) as far as practicable. Where this is not feasible an ECoW would inspect the habitat and any active nests would be retained along with a minimum 5 metre buffer around them. The buffer around more sensitive birds and birds listed on Schedule 1 of the Wildlife and Countryside Act (1981) could be increased, to avoid disturbance.	Construction	CoCP – DCO requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-10	Ecology and Nature	To reduce impacts on protected species	**Protection of Badgers**	Construction	CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
	Conservation		The following measures would be implemented to protect badgers during the construction period: • suitable sturdy fencing to be erected around all construction works to deter foraging badgers from the works' areas; • any excavated holes to have a wooden board placed in them overnight so as to provide a means of escape should any badgers accidentally enter the excavation; and • any hazardous chemicals to be securely stored at night in a locked container (in accordance with regulations) Active badger setts that would be damaged or destroyed, or which could result in badgers using them being disturbed, would be closed using appropriate methods and timings. In order to avoid attracting badgers to the works area food waste will be minimised and any remaining food waste would be disposed of in appropriate bins or removed from site at the end of each day.		CRWMP – DCO Requirement 30 Existing legislative regime Badger Licences	**Conservation** [APP-034], Table 9.8.1
EC-11	Ecology and Nature Conservation	To reduce impacts on protected species.	**Location of the airfield satellite construction compound** The airfield satellite construction compound would be located outside of the River Mole diversion footprint to allow the new river channel to establish. A minimum 8 metre buffer would be created along the channel.	Construction	CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-12	Ecology and Nature Conservation	To reduce impacts on protected species.	**New GCN and grass snake receptor sites** Receptor areas for GCN and grass snake would be prepared, and the species translocated into these areas, using appropriate methods and timings prior to construction commencing within suitable habitats.	Construction	CoCP – DCO Requirement 7 PSLs	**ES Chapter 9: Ecology and Nature Conservation** ,[APP-034] Table 9.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
EC-13	Ecology and Nature Conservation	To minimise loss of habitats of conservation interest.	**Restoration of temporary construction compounds** Restoration of temporary construction compounds to their previous use which will result in reinstated habitats of at least existing ecological value.	Construction	CoCP – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-14	Ecology and Nature Conservation	To reduce impacts on protected species.	**Ecology pre-construction surveys** Surveys will be carried out to identify any protected species (including GCN, peregrine, little ringed plover and firecrest) within the area. This will inform any necessary applications for protected species licences and any method statements which are required to be complied with during the construction period and detailed LEMPs within the operational period.	Construction and Operation	CoCP – DCO Requirement 7 oLEMP – DCO Requirement 8 PSLs	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-15	Ecology and Nature Conservation	To ensure any bat roosts are identified and any loss suitably mitigated	**Bat Roost protection** Trees to be removed that have low bat roost potential will be subject to a soft-felling methodology supervised by an ECoW. Trees to be removed that have a Medium or High bat roost potential will be subject to climbing inspections and/or dusk emergence/dawn re-entry surveys as appropriate to inform where further mitigation is required. This could include an application for a licence with supporting method statement. A range of bat boxes suitable for the species recorded foraging and commuting in the area and which imitate the type of potential roost features present in trees would be installed on retained trees through construction and operation.	Construction and Operation	CoCP - DCO requirement 7 oLEMP – DCO Requirement 8 PSLs	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-16	Ecology and Nature Conservation	To provide habitats of conservation interest.	**South Terminal Roundabout Attenuation Pond** Creation of an attenuation pond supporting reedbed to the north of South Terminal Roundabout to provide a high value habitat.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
EC-17	Ecology and Nature Conservation	To minimise the impact of construction on features of ecology and nature conservation value. to provide new habitats for fauna displaced during the construction of the flood compensation area	**Museum Field Environmental Mitigation Area** Creation of an earth bund in the south and east of Museum Field and the development of the Museum Field Mitigation Area to provide a mosaic of habitats comprising scrub and tree planting, a mixture of wet and dry neutral grassland, woodland, wet woodland and bare or poorly vegetated ground to provide a matrix of habitats suitable for a variety of wildlife.	Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-18	Ecology and Nature Conservation	To provide new habitats for fauna displaced during the diversion of the River Mole	**River Mole** Diversion of the River Mole would create an increased length of channel with a more sinuous, natural course. Creation of new refugia and hibernacula including high value habitats comprising a mixture of wet and dry neutral grasslands along the new channel of the River Mole.	Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-19	Ecology and Nature Conservation	To compensate for habitat loss along the highway.	**Replacement open space** There would be approximately 1.95 ha of replacement public open space at Longbridge Roundabout and Car Park B together with new footpaths. These would fully mitigate the loss of open space required for the Project, particularly that at Riverside Garden Park and it would provide additional space to enhance the environment. Woodland, scrub and species-rich grassland creation within Car Park B to provide an extension of Riverside Garden Park. Creation of new habitats within a newly created mitigation area north and east of Longbridge roundabout comprising woodland, scrub and tree planting and species-rich, wet and dry grassland creation	Construction and Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			Marginal planting would also be introduced around new attenuation ponds.			
EC-20	Ecology and Nature Conservation	To compensate for woodland and trees lost in other parts of the site	**Pentagon Field** Creation of woodland belts in Pentagon Field in a location that extends existing woodland and enhances connectivity.	Construction and Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-21	Ecology and Nature Conservation	To provide replacement habitat and maintain and enhance connectivity for foraging and commuting bats	**Landscape planting** Tree and shrub planting will be provided within built-up areas (such as car parks) to reinforce retained tree lines and across the Project. The landscape planting to include a variety of native trees and shrubs and wildflower grasslands. New woodland will be planted along the highway works and new road alignments. In particular an existing non-native hedgerow comprising Leyland cypress between the A23 London Road and Perimeter Road East would be replaced with a native species-rich hedgerow.	Construction and Operation	oLEMP– DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-22	Ecology and Nature Conservation	To minimise the impact of construction on features of ecology and nature conservation value.	**Retained vegetation incorporated into detailed design** Any retained trees, scrub and hedgerows which are features of ecological value would be reviewed to see if they could be incorporated within the design, where feasible to do so.	Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-23	Ecology and Nature Conservation	To minimise the impact of construction on features of ecology and nature conservation value.	**Operational management measures** Measures for the appropriate storage of materials and fuels would be implemented to avoid the pollution of designated sites, ancient woodland and the local water environment during operation.	Operation	CoCP – DCO Requirement 7 Existing legislative regimes	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-24	Ecology and Nature	To minimise the impact of lighting during	**Operational lighting management**	Operation	Design Principles – DCO Requirement 4	**ES Chapter 9: Ecology and Nature**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
	Conservation	construction on features of ecology and nature conservation value.	Lighting design principles will be considered in the development of detailed design. These principles include details of the installation requirements of permanent lighting to be installed for the operational phases of the Project including positioning and the use of shields to prevent unintended light spill. Lighting would be designed to avoid disturbance to areas of value for bats by shielding adjacent habitats of value where relevant.			**Conservation** [APP-034], Table 9.8.1
EC-25	Ecology and Nature Conservation	To determine success of mitigation and identify remedial measures if required.	**Ecological monitoring** Monitoring will take place as required by licences or measures approved within the LEMPs including: • GCN and grass snake populations affected • Bat activity • Badger setts • Habitat condition (including a river condition assessment)	Construction and Operation	oLEMP – DCO Requirement 8 PSLs	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
EC-24	Ecology and Nature Conservation	To prevent the spread of invasive non-native species through construction works.	**Invasive and Non-Native Species Management** Construction activities to be carried out in accordance with the Invasive Non-Native Species Management Strategy to prevent the spread of such species during construction of the Project.	Construction	INNS Management Strategy – DCO Requirement 7	**ES Chapter 9: Ecology and Nature Conservation** [APP-034], Table 9.8.1
GG-1	Geology and Ground Conditions	To ensure that areas without sufficient historical data are assessed for contamination so that remediation can be undertaken where necessary.	**Ground investigations** Where assessment of historical data cannot demonstrate that the risk of contamination is low, intrusive ground investigations will be undertaken. The scope of the investigation will be agreed with the relevant local planning authority in consultation with the Environment Agency prior to its implementation. Where appropriate, the investigations will include geotechnical testing to provide information on land stability. An appropriate slope stability assessment will be undertaken where considered necessary.	Construction	CoCP – DCO Requirement 7 Contamination management – DCO Requirement 9	**ES Chapter 10: Geology and Ground Conditions** [APP-035], paragraph 10.5.1 and Table 10.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
GG-2	Geology and Ground Conditions	To ensure that contamination not previously identified but uncovered during construction is appropriately managed.	**Discovery Strategy / watching brief** The discovery strategy (which forms part of the CoCP) will comprise a watching brief to be undertaken by suitably trained personnel during construction activities such as ground clearance and earthworks. The strategy will include a procedure for construction workers to follow in the event that previously unknown contamination is discovered.	Construction	CoCP – DCO Requirement 7 Contamination management – DCO Requirement 9	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
GG-3	Geology and Ground Conditions	To facilitate the remediation of the site where contamination is encountered.	**Remediation Strategy** Where the results of the ground investigation or as a result of the watching brief determine that remediation is required to ensure that the site is suitable for its proposed use, a remediation strategy will be prepared. The strategy will comprise the following: • implementation plan setting out the objectives and requirements of the remediation; • validation sampling to confirm that remediation objectives have been met; and • a verification report. The scope of the remediation strategy will be agreed with the relevant local planning authority in consultation with the Environment Agency prior to its implementation and then will be implemented. Before that area is to be used or occupied a verification report demonstrating completion of the works and the effectiveness of the remediation (including results of sampling and monitoring) will be sent to the local planning authority for approval.	Construction	CoCP – DCO Requirement 7 Contamination management – DCO Requirement 9	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
GG-4	Geology and Ground Conditions	To minimise ground contamination and prevent contaminated	**Groundwater protection** Implementation of measures to protect groundwater set out in the Water Management Plan during construction, including good environmental practices based on legal responsibilities and guidance on good environmental management.	Construction	CoCP (Annex 1: WMP) – DCO Requirement 7	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		runoff entering surface water or groundwater				
GG-5	Geology and Ground Conditions	To help avoid pollution incidents occurring.	**Anti-spill measures** Implementation of measures to prevent and control the spillage of oil, chemicals and other potentially harmful liquids will ensure appropriate storage and handling of materials and products in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001. Refuelling of machinery will be undertaken within designated areas where spillages can be easily contained. Machinery will be routinely checked to ensure it is in good working condition; and any tanks and associated pipe work containing oils and fuels will be double skinned and be provided with intermediate leak detection equipment	Construction	CoCP – DCO Requirement 7 Existing legislative regimes	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
GG-6	Geology and Ground Conditions	To mitigate risks to construction workers from contamination including ground gas.	**Worker health and safety** Implementation of control measures, use of appropriate personal protective equipment and adoption of high levels of personal hygiene by construction workers. Health and Safety risk assessments to be completed prior to construction workers in line with Construction (Design and Management) Regulations 2015.	Construction	CoCP – DCO Requirement 7 Existing legislative regimes	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
GG-7	Geology and Ground Conditions	To facilitate the reuse of soils.	**Material reuse measures** Where appropriate, a CL:AIRE Materials Management Plan would be prepared to document the reuse of soils on the site (including the raising of Pentagon field) and include a risk assessment procedure to demonstrate the soils do not present a risk to human health or the environment.	Construction	CoCP CRWMP – DCO Requirement 7 CRWMP – DCO Requirement 30 Existing legislative regimes	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
GG-8	Geology and	To maximise the use of incidentally recovered brick clay.	**Reuse of incidentally recovered clay** Where the Project site falls within the Brick Clay Resource Mineral Safeguarding Area, measures to mitigate the sterilisation of the Brick Clay will be implemented.	Construction	CoCP – DCO Requirement 7	**ES Chapter 10: Geology and Ground**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
	Ground Conditions		Opportunities will be explored to reuse offsite the surplus cohesive material of the Weald Clay Formation which cannot be retained on site and/or explore opportunities with brickworks operators within the county to receive incidentally recovered brick clay.		CRWMP – DCO Requirement 30	**Conditions** [APP-035], Table 10.8.1
GG-9	Geology and Ground Conditions	To mitigate risks from unidentified unexploded ordnance.	**Unexploded Ordnance (UXO) mitigation** Unexploded ordnance surveys will be carried out pre-construction and a risk assessment will be completed. Appropriate measures to mitigate the risk will be adopted on a case-by-case basis. A UXO mitigation strategy would be developed using guidance within Unexploded Ordnance: A guide for the Construction Industry (CIRIA, 2009).	Construction	CoCP – DCO Requirement 7	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
GG-10	Geology and Ground Conditions	Reduced impact on non-agricultural soil resources.	**Removal of construction compounds** All compounds are anticipated to cease use on completion of the works. All temporary compounds will be restored to their previous land use following completion of the works.	Construction	CoCP – DCO Requirement 7	**ES Chapter 10: Geology and Ground Conditions** [APP-035], paragraph 10.9.50
GG-11	Geology and Ground Conditions	To help avoid pollution incidents occurring.	**Anti-spillage measures** During operation, maintenance activities may involve the use of chemicals and oils. Secure storage facilities would be provided, including a secondary containment system. A spillage control procedure would be implemented to ensure that any spillages are contained and removed.	Operation	CoCP – DCO Requirement 7 Existing legislative regimes	**ES Chapter 10: Geology and Ground Conditions** [APP-035], Table 10.8.1
WE-1	Water Environment	To mitigate effects during construction.	**Construction measures** • Constructing adequate temporary Sustainable Drainage Systems (SuDS) or conventional drainage to contain surface water and silt during the construction period. • Identifying the location of services before any work commences to avoid any damage during construction.	Construction	CoCP - DCO Requirement 7 CoCP (Annex 1: WMP) - DCO Requirement 7	**ES Chapter 11: Water Environment** [APP-036], paragraph 11.8.6 **ES Appendix 11.9.2: Water Framework Directive Compliance**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			• Ensuring adequate dewatering takes place during excavation activities or construction of subsurface features and foundations, in line with any permitting requirements. • Ensuring dewatering does not mobilise existing contamination or lead to settlement or other such effects. • Piling risk assessment (in accordance with the Environment Agency guidance) including mitigation of risk to controlled waters during piling installation to ensure piling works do not create preferential pathways for contamination. • Ensuring the drainage system has adequate capacity to store any additional surface water runoff or groundwater required to be pumped out of excavations. • Implementation of measures to protect groundwater during construction, including good environmental practices. • Implementation of water efficiency measures to minimise additional water use, such as pressure management, grey water recycling and rainwater harvesting, and water efficient controllers on tap and urinals. • Where the construction of Project elements within the floodplain is proposed, phasing would be developed to ensure adequate mitigation is provided prior to the loss of any floodplain as a result of construction activities, where reasonably practicable. Where this is not practical, ensure temporary floodplain compensation is provided if the construction activities would increase flood risk elsewhere. • Preparing an incident response plan prior to construction. This would be present on site throughout construction, informing all site workers of required actions in the event of a flooding incident. • Using site materials free of contamination, avoiding any potential contamination of local surface water flow paths. • Ensuring that wet cement does not come in to contact with surface water or groundwater. • Measures to control the storage, handling and disposal of potentially polluting substances during construction should be implemented.			**Assessment** [APP-143], Tables 4.2.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			• Material stockpiles should be located in excess of 10m from any watercourses and/or overland flow paths.			
WE-2	Water Environment	To preserve the structure of the riparian zone during construction.	**Riparian Zone Construction Measures** • works are to be undertaken in accordance with relevant guidelines, riparian planting could be used as buffer strips to reduce diffuse pollution • limit journeys with plant on ground to avoid tracking repetitively on softer verges; • provision of matting; and • utilisation of pollution prevention guidelines.	Construction	CoCP (Annex 1: WMP) - DCO Requirement 7	**ES Appendix 11.9.2: Water Framework Directive Compliance Assessment** [APP-143], Table 4.2.1
WE-3	Water Environment	To preserve the structure of the riparian zone during construction	**Specific construction measures for the River Mole works** Where river realignment is proposed, construction activities should be planned to ensure no increase in fluvial flood risk, with temporary mitigation provided if required. Works in the River Mole will consider the ecological features of the river and will: • avoiding spawning periods for working in the river • installing cofferdam for in-channel works • minimising the length to be culverted • undertaking a fish rescue survey prior to in-channel works to safeguard fish populations • construction sequencing which allows for planting and establishment of riparian and aquatic plant species at renaturalised channel • bringing the renaturalised diversion channel online prior to infilling old channel to maintain fish passage through River Mole • carrying out offline construction of the diversion renaturalised channel • re-seeding of banks during spring to allow stabilisation of banks • leave to vegetate over before flow is initiated down the channel to reduce the release of fine sediment and the likelihood of any unexpected large-scale channel change	Construction	CoCP (Annex 1: WMP) - DCO Requirement 7 Design Principles – DCO Requirement 4 oLEMP – DCO Requirement 8	**ES Chapter 11: Water Environment** [APP-036], paragraph 11.7.23 **ES Appendix 11.9.2: Water Framework Directive Compliance Assessment** [APP-143], Tables 4.2.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
WE-4	Water Environment	To replace lost floodplain storage.	**Provision of compensatory flood storage areas** New flood compensation areas (FCA) in Museum Field and Car Park X. Through the construction of Museum Field FCA installation of scour protection measures or stilling basin downstream of the spillway and scour protection and toe protection along bankside installation of erosion control methods.	Construction and Operation	Flood Compensation Delivery Plan – DCO Requirement 23 Flood risk activity permit Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1 **ES Appendix 11.9.2: Water Framework Directive Compliance Assessment** [APP-143], Tables 4.2.1 and 4.3.1 **ES Appendix 11.9.6: Flood Risk Assessment** [REP6-052], paragraph 8.2.6
WE-5	Water Environment	To replace lost floodplain storage.	**Delivery of FCAs** Soft/bio engineering would be used in preference to concrete where natural river banks require protection at the connecting spillways to the new FCAs from watercourses. The bank forms would also be varied where they are being altered/lowered to aid natural variance of flow in the channel. Planting would take place on the Museum Field FCA. This would restore natural vegetation to the floodplain whilst protecting the banks from erosion. The FCAs would include measures to reduce their own impact including: • Fish refuges. For example, low points within the FCA could be connected to the watercourse by swales to encourage any fish that move with rising flood water to return to the river as flood waters recede. • Design flow control structure to reduce water levels slowly. (If the water level receded rapidly fish are more likely to be stranded). • Loss of aquatic habitat for fish would be mitigated by in-channel habitat in the River Mole.	Construction and Operation	Design Principles – DCO Requirements 4 and 10 Flood Compensation Delivery Plan – DCO Requirement 23 Flood risk activity permit	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
WE-6	Water Environment	To ensure that there is no additional discharge from the Pond A drainage catchment to the River Mole.	**Additional attenuation storage** The Project includes a number of storage features within the drainage network, these will be sufficient for the mitigation and to minimise any impact on water quality may include: • a below ground storage Car Park Y up to 32,000m^3 • within the existing airfield water drainage network • a new surface water drainage pumping facility from the Pond A catchment	Construction and Operation	Design Principles – DCO Requirements 4 and 10 Environmental permits	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1 **ES Appendix 11.9.6: Flood Risk Assessment** [REP6-052], Table 7.3.1, paragraphs 8.3.3-8.3.5 and Figure 11.8.1
WE-7	Water Environment	To increase the capacity of the floodplain.	**Increasing the capacity of the River Mole floodplain channel area** The capacity of the River Mole floodplain (including the associated culvert and syphon outfall structures) will be increased through the provision of a new renaturalised, two-stage channel downstream of the existing River Mole culvert beneath the two runways.	Operation	oLEMP – DCO Requirement 8 Flood Risk Activity permit Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-8	Water Environment	To provide biodiversity and geomorphological mitigation for River Mole renaturalised channel and valley.	**Realignment and renaturalisation of the River Mole** Creation of a more natural planform and a two-stage channel would improve flow regime channel diversity and floodplain coupling. The design would include varied cross sections to mimic natural processes, bed and bank forms, and would be of a suitable bed gradient, sinuosity and appropriate substrate at the realignment in order to maintain sediment transport capability. Suitable substrate would be added to the renaturalised channel following the works. Diverse and multi-stage channel profiles in the renaturalised watercourse	Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1 **ES Appendix 11.9.2: Water Framework Directive Compliance Assessment** [APP-143], Table 4.3.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
WE-9	Water Environment	To provide aquatic Ecology and geomorphological mitigation for River Mole channel extension within the Juliet taxiway planform.	**Design of the River Mole culvert** The daylighted channel on the River Mole culvert would be designed with a depressed invert and a natural bed gradient in order to maintain sediment transport capability. The extension would also be designed with splayed wing walls to reduce the light and dark barrier. There would be inclusion of baffles in the new channel or a low flow channel to retain sediment and create suitable depth of flow under a range of conditions. An expanded metal grid will be provided where the River Mole channel runs below the Taxiway Juliet and this new section of channel will include a low flow channel and a bed with substrate to allow vegetation to establish.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-10	Water Environment	To maintain floodplain connectivity.	**Active Travel Path** The Project's active travel path for pedestrian and cyclists connects Longbridge Roundabout to Car Park Y on the southern side of the highways improvement works. This includes a raised embankment on the right bank of the River Mole. To maintain floodplain connectivity, culverts are proposed beneath the travel path.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], paragraph 11.7.23 **ES Appendix 11.9.6: Flood Risk Assessment** [REP6-052], paragraph 7.2.11
WE-11	Water Environment	To mitigate against the risk of the spread of invasive species as a result of the works for the Project.	**Prevention of spread of invasive species** Best practice guidelines would be used to prevent spread of invasive species including of American signal crayfish and New Zealand mud snail.	Construction and Operation	CoCP – DCO Requirement 7 oLEMP – DCO Requirement 8	**ES Appendix 11.9.2: Water Framework Directive Compliance Assessment** [APP-143], Tables 4.2.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
WE-12	Water Environment	To maintain flows and sediment transport capability for geomorphology and aquatic ecology.	**Burstow Stream Tributary culvert design** An extension to the existing culvert under the A23 on the Burstow Stream Tributary will be designed to be as short as possible and would be designed with a depressed invert and a natural bed gradient in order to maintain continuity of flow and sediment transport capability. The culvert would also be designed with splayed wing walls to reduce the light and dark barrier.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-13	Water Environment	To retain floodplain connections.	**Provision for new airfield syphons** Where proposed taxiways would bisect parts of floodplain areas syphoned connections are proposed to retain floodplain connection on both sides of the taxiways.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-14	Water Environment	To provide connections beneath the noise mitigation feature to maintain floodplain connectivity.	**New noise mitigation feature syphons** Syphoned connections beneath the noise mitigation feature would be installed to maintain floodplain connectivity from Man's Brook.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1 **ES Appendix 11.9.6: Flood Risk Assessment** [REP6-052], paragraph 7.2.10
WE-15	Water Environment	To mitigate against additional surface water runoff due to the introduction of additional impermeable area.	**Drainage Strategy** A drainage network would be installed, consisting of carrier drains, filter drains, ditches and attenuation basins/ponds, along with flow control arrangements to limit discharges to watercourses. Drainage requirements will also consider no detriment to the water quality of the receiving watercourses.	Operation	Surface Access Highways Surface Water Drainage Strategy – DCO Requirement 11 Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
WE-16	Water Environment	To mitigate against increased Air Traffic Movements potentially resulting in increased use of de-icer.	**Additional de-icer treatment** A new treatment system will extract 100l/s from the long-term storage lagoons. The treatment system will treat the stored contaminated runoff to a quality sufficient to be discharged to the Gatwick Stream.	Operation	Design Principles – DCO Requirements 4 and 10 Environmental permit and flood risk activity permit	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1 **ES Appendix 11.9.2: Water Framework Directive Compliance Assessment** [APP-143], Table 4.3.1
WE-17	Water Environment	To mitigate the potential impact on the wastewater sewer systemfrom flooding arising from increased flows in the network exceeding the available capacity.	**Wastewater System Capacity Upgrades** Improvements to the wastewater sewer system as part of the Project would include the following: • replacement of pumps and pumping main at pumping station PS06 to provide additional capacity; and • construction of a new pumping station on the east side of the Brighton-London mainline railway to convey all wastewater flows from this area to Crawley STW to relieve the gravity outfall pipe discharging to Thames Water's Horley STW sewer network.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-18	Water Environment	To provide an enhancement of Fish passage on River Mole weir upstream of runway culvert	**New fish pass** Creation of a fish pass on the existing weir located immediately upstream of the River Mole runway culvert to improve fish passage particularly during low flow conditions.	Operation	Design Principles – DCO Requirements 4 and 10 oLEMP – DCO Requirement 8	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1 **ES Appendix 11.9.6: Flood Risk Assessment** [REP6-052], paragraph 7.2.14
WE-19	Water Environment	To mitigate the concentration of low	**New weir**	Operation	Design Principles – DCO Requirement 4	**ES Appendix 11.9.6: Flood Risk**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		flows to enhance fish passage.	Construction of a 300mm high weir on the southern entrance to the River Mole runway culvert (eastern box).		oLEMP – DCO Requirement 8	**Assessment** [REP6-052], paragraph 7.2.12
WE-20	Water Environment	To mitigate the potential interruption of groundwater (sub-surface flows) that could result in groundwater flooding.	**Groundwater consideration in design** Design considerations to ensure both ground and groundwater conditions are taken into account in the detailed design to minimise risk to groundwater quality, to minimise impedance to groundwater flow and to minimise risk of groundwater flooding. This may include additional ground investigations. All foundations at or below structures expected to intercept high groundwater levels and which could form a barrier to groundwater flow would be designed to allow existing groundwater flow paths to function. This would prevent an increase in groundwater flood risk and would protect flood-sensitive receptors elsewhere. This will be achieved during the detailed design stage and using complementary ground investigation results.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-21	Water Environment	To mitigate the potential impact on the water quality of receiving watercourses due to increased de-icer use.	**Permitting monitoring** GAL would continue to monitor the quality of water discharges to ensure compliance with environmental permits post Project. Given the increased de-icer loading, additional water quality monitoring within Gatwick airport's system would be implemented as part of the overall water quality management system.	Operation	Environmental permits	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-22	Water Environment	To mitigate the risk of poor quality dewatering water resulting in water quality impacts when discharged during construction.	**Discharge methods** Groundwater quality testing to ensure an appropriate water discharge strategy is adopted during construction.	Construction	Environmental permits	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
WE-23	Water Environment	To mitigate and monitor the sediment transport on the River Mole degrading aquatic ecology.	**Monitoring build-up of sediment** Regular monitoring of any change to the channel bed and banks would be undertaken, in the vicinity of the River Mole re-naturalised channel, the Museum Field FCA spillway and Car Park X FCA outfall, following completion of the Project. This would be undertaken using fixed point photography. If significant negative change occurs, appropriate mitigation would be implemented. For example, excessive erosion of the bank would require suitable bank protection measures to stabilise the bank. Any monitoring programme developed should have a resolution and timing appropriate to the impacts being monitored. It is recommended that the monitoring is carried out over a period of between 3 to 5 years, and data is collected at intervals of 3 to 6 months, and post-flood events.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-24	Water Environment	To mitigate and monitor the water quality of receiving watercourses.	**Water discharge monitoring** Any impacts to water quality would be identified by existing discharge monitoring undertaken by GAL at Pond A, M and D and in the River Mole.	Operation	Environmental permits	**ES Chapter 11: Water Environment** [APP-036], Table 11.9.141
WE-25	Water Environment	To mitigate and monitor erosion of the existing watercourse.	**Operation of water treatment works outfall** Monitor Gatwick Stream for erosion at the existing outfall due to flows from the new water treatment works.	Operation	Environmental permits	**ES Chapter 11: Water Environment** [APP-036], Table 11.8.1
WE-26	Water Environment	To provide an alternative solution for wastewater.	**On-airport WWTW** To provide an on-airport wastewater treatment works as an alternative solution for wastewater treatment due to ongoing uncertainty regarding capacity constraints in Thames Water Utilities Limited wastewater treatment network.	Operation	Delivery of the On-airport WWTW – DCO Requirement 31	**Second Change Application Report** [REP6-072]

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
TT-1	Traffic and Transport	To increase the capacity of the highways and active travel network serving the Project.	**Surface access improvements – highways and active travel** The highway improvement works detailed in ES Chapter 5: Project Description, which are programmed to be complete within three years of dual runway operations, include changes to the North and South Terminal roundabouts and modification of the Longbridge roundabout. The highway works include improvements to walking and cycling infrastructure, such as physical improvements to active travel infrastructure at Longbridge roundabout, alongside the A23 London Road and Longbridge Way, between South Terminal, Gatwick Airport station and Balcombe Road and alongside Perimeter Road North between North and South Terminals.	Construction and Operation	Opening of national highways – DCO Requirement 6 Surface Access Works – DCO Requirement 20	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1
TT-2	Traffic and Transport	To maintain highway and PRoW safety.	**Temporary diversion routes during construction** Management measures or temporary diversions to safely maintain access along PRoW and highways will be implemented during construction including NCR21, Sussex Border Path and any other PRoW in the vicinity of the Car Park B construction compound. The PRoW diversions will be monitored during the construction period.	Construction	Temporary stopping up – DCO Article 15 PRoW Management Strategy – DCO Requirement 22	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1
TT-3	Traffic and Transport	To promote sustainable travel, reduce single occupancy car use, minimise congestion on the highway network external to the Airport and reduce the demand for temporary car parking during the	**Construction Workforce Travel Plan** A Construction Workforce Travel Plan will be implemented for construction workers, including: • Encouraging/incentivising public transport use for the construction workforce. • Considering timing shift patterns to reduce pressure on local transport services and roads where practicable, with particular consideration to commuter peak periods	Construction	CoCP – DCO Requirement 7 oCWTP – DCO Requirement 13	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		construction stages of the Project.				
TT-4	Traffic and Transport	To minimise any negative environmental and community impacts from construction traffic.	**Construction Traffic Management Plan** A Construction Traffic Management Plan will be implemented through construction: • Measures to ensure the transport of construction materials and waste is managed as sustainably as practicable. • Scheduling of construction material and logistics traffic movements that need to come by road to arrive and depart outside of peak periods and to use designated routes into construction sites on the airport which are suitable for this type of traffic. • Designated routes for construction traffic to follow through the Strategic Road Network to avoid routing through the M23 Junction 10 and Hazelwick Air Quality Management Area. • Delivery Management System (DMS) to manage material deliveries to site and collections by scheduling and re-timing them in a manner that consciously avoids the most congested times of the day**.**	Construction	CoCP – DCO Requirement 7 oCTMP – DCO Requirement 12	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1
TT-5	Traffic and Transport	To increase the mode share of more sustainable methods of travel to and from the airport.	**Mode share commitments** GAL is committing to achieving the following annualised mode shares by the summer period after the third anniversary of the opening of the new northern runway and on an ongoing basis thereafter: • a minimum of 55% of air passenger journeys to and from the airport to be made by public transport; • a minimum of 55% of airport staff journeys to and from the airport to made by public transport, shared travel and active modes; • a reduction of all air passenger drop-off and pick-up car journeys to no more than 12% of surface access journeys; and	Operation	SAC – DCO Requirement 20	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			• at least 15% of airport staff journeys originating within 8km of the airport to be made by active modes. (Commitments 1 – 4 SACs)			
TT-6	Traffic and Transport	To support the achievement of GAL's mode share commitments.	**Support for public transport** GAL will provide: • reasonable financial support to enable the services detailed in Table 1 of the Surface Access Commitments, or others which result in an equivalent level of improved public transport accessibility, to sustain their operation and promote their use for a minimum of five years. GAL recognises that agreement with operators and/or local authorities will be needed on the detail of each route. • reasonable financial support in relation to the services detailed in Table 2 of the Surface Access Commitments, or others which result in an equivalent level of public transport accessibility, to sustain their operation and promote their use for a minimum of five years. GAL recognises that agreement with operators and/or local authorities will be needed on the detail of each route • reasonable support for direct services from Crawley Down and Copthorne to Gatwick. Whilst not required to deliver the mode share commitments, the intention will be to extend existing routes to continue non-stop from Crawley to Gatwick. (Commitments 5 – 7 SACs)	Operation	SAC – DCO Requirement 20 S106 Agreement	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1 and paragraph 12.8.5
TT-7	Traffic and Transport	To ensure the Project does not lead to traffic nuisance in the surrounding neighbourhood.	**Funding for parking control** Provide funding for: • support for effective parking controls and/or monitoring on surrounding streets if considered necessary by the relevant local authority; and/or • support local authorities in their enforcement actions against unauthorised off-airport passenger car parking.	Operation	SAC – DCO Requirement 20 S106 Agreement	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1 and paragraph 12.8.5

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			(Commitment 8 SACs)			
TT-8	Traffic and Transport	To support the achievement of GAL's mode share commitments.	**Managing air passenger car parking** GAL commits to: • using parking charges to influence air passenger travel choices and support its approach to sustainable surface access, to the extent necessary to achieve the mode share commitments. • using forecourt charges to influence passenger travel choices and support its approach to sustainable surface access, to the extent necessary to achieve the mode share commitments. (Commitments 9, 10 SACs)	Operation	SAC – DCO Requirement 20	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1 and paragraph 12.8.5
TT-9	Traffic and Transport	To support the achievement of GAL's mode share commitments.	**Managing staff car parking** GAL commits to: • maintaining the number of parking spaces allocated for staff use at or below current levels (6,100 spaces). There will therefore be no increase in staff parking provision as part of the Project. • introducing measures to discourage single-occupancy private vehicle use. GAL also commits to implementing incentives for active travel and increasing discounts for staff using public transport. The precise nature of those measures will need to be defined in due course, in consultation with employers and staff. (Commitments 11, 12 SACs)	Operation	SAC – DCO Requirement 20	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1 and paragraph 12.8.5
TT-10	Traffic and Transport	To support the achievement of GAL's	**Providing additional funding mechanisms** To provide funding via:	Operation	SAC – DCO Requirement 20	**ES Chapter 12: Traffic and Transport** [REP3-

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		mode share commitments.	• continuing to use the Sustainable Transport Fund to support measures to achieve the mode share commitments. GAL will maintain the annual increase in the tariff value on air passenger spaces. • set aside a Transport Mitigation Fund (TMF) to support additional measures, particularly should the need arise for additional measures in the area surrounding the Airport as a direct result of airport-related growth. The intention of this fund is to give assurance that resource will be available for additional interventions in support of the commitments set out in this document, or to provide mitigation of an unforeseen or unintended impact from the Project. This may relate to physical infrastructure, changes to public transport services or facilities off-airport. Requests for and decisions on allocation from the TMF would be addressed through the TFSG and sub-groups of it. (Commitments 13, 14 SACs)		S106 Agreement	016], Table 12.8.1 and paragraph 12.8.5
TT-11	Traffic and Transport	To monitor and report on the achievement of GAL's mode share commitments.	**Surface access monitoring and reporting** GAL commits to: • undertaking a comprehensive monitoring exercise based on the data sources listed in Table 3 of the Surface Access Commitments. Not all of these sources are in GAL's control; some would need to be provided by service operators and GAL will reach agreement with those operators on any commercial confidentiality considerations. GAL commits to fund any additional surveys and counts as reasonably required to complete this monitoring exercise. • prepare an Annual Monitoring Report (AMR) that will be issued to the Gatwick Airport Transport Forum Steering Group, which will contain information about: ○ The data collected in the preceding year; ○ Outcomes from the staff travel survey (every other year); ○ The number and mode share of journeys made by air passengers; ○ The number and mode share of journeys made by airport staff;	Operation	SAC – DCO Requirement 20	**ES Chapter 12: Traffic and Transport** [REP3-016], Table 12.8.1 and paragraph 12.8.15

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			○ The measures currently in use, including the committed interventions and any additional measures which GAL has chosen to implement to achieve its mode share commitments; ○ Any identified trends from the latest and previous data; ○ The anticipated future trajectory of mode shares and progress towards achieving the committed mode shares; and ○ Proposals for introducing, changing or withdrawing certain measures or interventions. (Commitments 15, 16 SACs)			
AQ-1	Air Quality	To minimise dust soiling or human health effects	**Construction dust mitigation and monitoring** Develop and implement Construction Dust Management Plans (DMP) in substantial accordance with the Construction Dust Management Strategy, which may include measures to control other emissions, approved by Crawley Borough Council. The CDMPs will be site-specific, setting out how the works will be carried out to mitigate dust impacts and provide details of monitoring locations and consideration of whether monitoring locations need to change based on phasing and works being carried out. For high-risk sites, the CDMPs will include a monitoring plan to determine the location of dust monitors and detailed plans for monitoring during the phasing of construction activities relevant to the CDMP.	Construction	CoCP – DCO Requirements 7 and 27	**ES Chapter 13: Air Quality** [REP3-018], Table 13.9.1
AQ-2	Air Quality	To minimise dust soiling or human health effects	**Air Quality Monitoring in Construction** Baseline monitoring at least three months prior to the commencement of works would be carried out with suitable automatic (Osiris type) monitoring equipment. Monitoring to ensure mitigation measures are effective in controlling dust emissions, and that there are no significant impacts on the surrounding environment.	Construction	CoCP – DCO Requirement 7	**ES Chapter 13: Air Quality** [REP3-018], paragraph 13.9.7

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
AQ-3	Air Quality	To minimise any potential air quality effects.	**Use of low emission construction equipment and vehicles** During construction of the Project, all on-road heavy vehicles will comply with the standards set within the London Low Emission Zone (LEZ) across all sites within the Order Limits for the relevant class of vehicle; and all non-road mobile machinery (NRMM) net power 37kW to 560kW will comply with the engine emissions standards set by London LEZ for NRMM across all sites within the Order Limits. From 1 January 2025, NRMM used on any site will be required to meet emission standard Stage IV as a minimum. From 1 January 2030, NRMM used on any site will be required to meet emission standard Stage V as a minimum.	Construction	CoCP (Annex 3: oCTMP) – DCO Requirement 7	**ES Chapter 13: Air Quality** [REP3-018], Table 13.9.1
AQ-4	Air Quality	To reduce construction traffic on local minor routes and minimise impacts on the highway network	**Construction Traffic Management Plan** A Construction Traffic Management Plan will be implemented through construction and include: • Measures to ensure the transport of construction materials and waste is managed as sustainably as practicable. • Scheduling of construction material and logistics traffic movements that need to come by road to arrive and depart outside of peak periods and to use designated routes into construction sites on the airport which are suitable for this type of traffic. • Designated routes for construction traffic to follow through the Strategic Road Network to avoid routing through the M23 Junction 10 and Hazelwick Air Quality Management Area. • Delivery Management System (DMS) to manage material deliveries to site and collections by scheduling and re-timing them in a manner that consciously avoids the most congested times of the day**.**	Construction	CoCP (Annex 3: oCTMP) – DCO Requirement 12	**ES Chapter 13: Air Quality** [REP3-018], Table 13.9.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
AQ-5	Air Quality	To minimise any potential odour effects	**Odour management** The airport would apply best practice handling methods for fuels. Best practice waste handling methodologies would be implemented for the replacement CARE facility.	Construction and Operation	Existing legislative regimes CoCP (Annex 5: CRWMP) – DCO Requirement 7	**ES Chapter 13: Air Quality** [REP3-018], Table 13.9.1
AQ-6	Air Quality	To minimise any potential air quality effects.	**Management of operational traffic** Traffic during operation of the Project would be managed through the Surface Access Commitments. The SAC contains mode share targets that will increase the proportion of travel to and from the airport made by sustainable modes reduce non-sustainable travel to and from the airport and accommodates the increase in passenger and staff access to and from Gatwick Airport.	Operation	SAC – DCO Requirement 20	**ES Chapter 13: Air Quality** [REP3-018], Table 13.9.1
AQ-7	Air Quality	To reduce and guide reductions in emissions.	**Mitigation of emissions in operation** The CAP contains measures that will mitigate the emissions arising in respect of the Project. It commits to key outcomes and outlines the actions that GAL could take in order to achieve such outcomes and in so doing, play a part in the global transition to a low carbon future for the aviation sector. It includes a list of measures that could be implemented to reduce emissions from on-site activity (airside vehicles, energy and fixed plant and miscellaneous emissions) and aviation (aircraft emissions).	Operation	CAP – DCO Requirement 21	**ES Chapter 13: Air Quality** [REP3-018], Table 13.9.1
AQ-8	Air Quality	To monitor key pollutants of concern and impacts of air quality reduction measures.	**Air Quality monitoring** A commitment is made to the continuation of monitoring of air quality at three permanent sites to be run jointly with the local authorities in addition to the site at Gatwick Airport run through the construction and operation of the Project. Further new monitoring locations on the airport site and external to the airport will be included once the Project is operational.	Construction and Operation	S106 agreement	**ES Chapter 13: Air Quality** [REP3-018], paragraphs 13.9.7-13.9.18

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
AQ-9	Air Quality	To monitor any potential air quality effects	**Air Quality studies** Participating in national aviation industry body studies of UFP emissions at airports and studying indoor air quality monitoring including those reviewing how monitoring could be undertaken.	Operation	S106 agreement	**ES Chapter 13: Air Quality** [REP3-018], paragraph 13.9.19
AQ-10	Air Quality	To minimise any potential odour effects	**Odour management – Operation** Best practice measures would be followed, including in the maintenance of the constructed wetland (reed bed) systems, handling fuel and waste handling methodologies for the replacement CARE facility	Operation	Existing legislative regimes	**ES Chapter 13: Air Quality** [REP3-018], paragraph 13.9.19 **Change Application Report**, Table 6 Air Quality [AS-139]
AQ-11	Air Quality	To minimise any potential odour effects	**Odour management – Construction** Best practice measures would be followed during construction to minimise the release of odour.	Construction	CoCP – DCO Requirement 7	**ES Chapter 13: Air Quality** [REP3-018], paragraph 13.9.19
NV-1	Noise and Vibration	To reduce disturbance from ground vibration.	**Construction Practices** Construction works will be undertaken in accordance with best practicable means (BPM) as defined by the Control of Pollution Act 1974 (CoPA) and Environmental Protection Act 1990 (EPA), which will be applied during construction activities to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors, including local businesses and quiet areas designated by the local authority.	Construction	CoCP – DCO Requirement 7 Existing legislative regimes	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.8.2 and 14.9.45
NV-2	Noise and Vibration	To minimise noise disturbance at night or at weekends.	**Working Hours** Works outside of daytime weekday working hours have been minimised.	Construction	CoCP – DCO Requirement 7	**ES Chapter 14: Noise and Vibration** [APP-039], Table 14.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
NV-3	Noise and Vibration	To manage potential environmental effects of construction noise and limit disturbance from construction activities.	**Section 61 of the CoPA Consent** Lead contractors will seek to obtain prior consent from the relevant local authority under Section 61 of the CoPA for the proposed construction works. The prior consent application would set out the best practicable means to be deployed to minimise construction noise and vibration, including controls to working hours, and provide a confirmatory assessment of construction noise and vibration, including confirmation of properties where noise insulation/temporary re-housing provision (if any) is to be offered.	Construction	CoCP– DCO Requirement 7 Existing legislative regimes	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.45 and 14.9.46
NV-4	Noise and Vibration	To manage potential environmental effects of construction noise and limit disturbance from construction activities.	**Construction Noise Monitoring** Noise monitoring will be carried out to confirm the best practicable means to reduce noise impacts are being adopted in areas where adverse noise impacts are predicted, to demonstrate compliance with the Section 61 prior consent.	Construction	CoCP – DCO Requirement 7 Existing legislative regimes	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.45 and 14.9.46
NV-5	Noise and Vibration	To screen noise close to the source to reduce noise outside the airport, and to replace functionality of existing bund that would be removed as part of the design.	**Western Noise Mitigation Bund** Earthworks, bunding approximately 8 metres in accordance with obstacle limitation surfaces and airport safeguarding requirements height situated at the western end of northern runway and noise barriers approximately 10 metres in accordance with obstacle limitation surfaces and airport safeguarding requirements in height running for approximately 500 metres to the north of the relocated Juliet taxiway and around the boundary of the re-located fire training ground.	Construction and Operation	Design Principles – DCO Requirement 4 CoCP – DCO Requirement 7 Western noise mitigation bund – DCO Requirement 32	**ES Chapter 14: Noise and Vibration** [APP-039], Table 14.8.3
NV-6	Noise and Vibration	To replace functionality of existing bund that would be removed as part of the design.	**Museum Field Bund** Landscape bunding around the flood pond has been designed to provide additional ground noise screening.	Operation	oLEMP – DCO Requirement 8 Design Principles – DCO Requirement 4	**ES Chapter 14: Noise and Vibration** [APP-039], Table 14.8.3

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
NV-7	Noise and Vibration	To avoid noise from fixed sources creating noise impacts at receptors outside the airfield	**Detailed design** Acoustic design of plant and fixed noise sources on buildings to meet the stated noise criteria.	Operation	Design Principles – DCO Requirement 4	**ES Chapter 14: Noise and Vibration** [APP-039], Table 14.8.3
NV-8	Noise and Vibration	To reduce adverse effects of noise and where possible contribute to the improvement of health and quality of life	**Alignment changes through optioneering of the road scheme design** These include: • The new right turn onto the A23 from the North Terminal Roundabout removes the current need for traffic wishing to turn right instead having to turn left up to the Longbridge roundabout, around it, and back down the A23, thus reducing traffic flows on this section of the A23 • Approximately 1 metre high noise barrier along the North Terminal roundabout flyover elevated section (facing Riverside Garden Park). • Approximately 1 metre high noise barrier along the South Terminal roundabout flyover elevated section, north side. • Traffic Management and speed reductions	Operation	Design Principles – DCO Requirement 4 For traffic management – Articles of DCO	**ES Chapter 14: Noise and Vibration** [APP-039], Table 14.8.4
NV-9	Noise and Vibration	To avoid significant construction noise impacts where on site noise mitigation cannot.	**Noise Insulation Scheme – Construction** Noise insulation would be offered for qualifying buildings, where noise levels exceed defined criteria as set out in the CoCP. Noise insulation or, if other measures are not possible, as a last resort temporary re-housing would avoid residents being significantly affected by levels of construction noise inside their dwellings. Qualification for noise insulation and, where appropriate, temporary re-housing would be confirmed, prior to seeking consent from the local authority under Section 61 of the CoPA. Qualifying buildings would be identified, as required in the CoCP, so that noise insulation can be installed, or where appropriate any temporary re-	Construction	CoCP – DCO Requirement 7 Noise Insulation Scheme – DCO Requirement 18	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.51-14.9.57

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			housing offered, and a reasonable timescale is allowed for this to be provided before the start of the works which are predicted to exceed noise insulation or temporary re-housing criteria.			
NV-10	Noise and Vibration	To mitigate air and ground noise impacts for the operating airport.	**Noise Insulation Scheme - Operation** An enhanced NIS would be introduced for the Project to replace the current noise insultation scheme which is offered in connection with existing operations at the Airport and to address expected increases in air noise, as set out in *ES Appendix 14.9.10 Noise Insulation Scheme*. The new scheme will offer additional mitigation for the housing already worst affected by noise, comprising two zones. • Inner Zone. • Outer Zone. The enhanced NIS also includes provision for schools with noise sensitive teaching spaces.	Operation	Noise Insulation Scheme – DCO Requirement 18	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.166-14.9.170
NV-11	Noise and Vibration	To mitigate air noise.	**Home Owners Relocation Assistance Scheme** In order to offer home owners the option to move from the areas most affected by the highest noise levels, home owners within the Leq, 16 hour 66 dB noise contour with the Project in operation would be offered a package to assist them in moving.	Operation	Noise Insulation Scheme – DCO Requirement 18	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.172
NV-12	Noise and Vibration	To mitigate aircraft noise.	**Noise Envelope** GAL proposes a noise envelope that sets limits in terms of the areas of the daytime LOAEL contour Leq, 16 hour day 51 dB, and the night-time LOAEL contour Leq, 8 hour night 45 dB. The limiting Leq, 16 hour day and Leq, 8 hour night contour areas are proposed with reference to the forecast noise impacts reported in this ES, taking account of operating and other measures to limit noise. The countour areas will be periodically	Operation	Noise Envelope – DCO Requirement 15	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.176-14.9.198

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			reviewed following an initial period of not more than 15 years to ensure they remain relevant. GAL will report on performance within the noise envelope annually and set in place internal management processes to forecast performance in the years ahead so as to pre-empt potential non-compliance and, where necessary, put in place operating practices and measures to reduce noise before an exceedance arises. Such measures would be subject to consultation with industry and community stakeholders if they trigger the requirements of Regulation (EU) 598/2014.			
NV-13	Noise and Vibration	To mitigate aircraft noise.	**Monitoring Performance** GAL currently reports its air noise management performance through a number of mechanisms including: • quarterly and annual Flight Performance Team (FPT) reports that provide information on performance against noise control measures; • live online NTK; and • annual Noise Contour Reports. In addition to the above reporting, GAL also regularly engages with stakeholders including airlines, air navigation service providers, local community groups, local authorities and Government bodies. This is done through various forums. Consultation with community noise groups through the Noise Management Board since 2017 has shown that those residents most affected by noise are keen to see not just monitoring of past or current performance but also forecasts of noise exposure in the near future. Working with community noise groups GAL agreed to develop a process by which the noise change associated with the growth of the airport could be forecast for the coming years, and reported, to help manage the expectations of local residents, and to forecast future noise management performance.	Operation	Section 106 Agreement Existing legislative regime	**ES Chapter 14: Noise and Vibration** [APP-039], paragraphs 14.9.173-14.9.175

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
NV-14	Noise and Vibration	To minimise noise from construction activities and construction traffic associated with the construction of the constructed wetland (reed bed) system	**Constructed wetland (reed bed) system – Temporary Noise Barrier** Temporary noise barrier (2.4m high) will be installed during construction, to the south of the southern pond construction area.	Construction	CoCP – DCO Requirement 7	**Change Application Report** [AS-139], Table 6 – Noise and Vibration
NV-15	Noise and vibration	To minimise noise from the operation of the constructed wetland (reed bed) system.	**Constructed wetland (reed bed) system – Detailed Design** To provide acoustic hoods on the blowers associated to the constructed wetland (reed bed) system and enclosed by acoustic fencing.	Operation	Design Principles – DCO Requirement 4	**Change Application Report** [AS-139], Table 6 – Noise and Vibration
NV-16	Noise and vibration	To mitigate adverse effects on the existing noise bund.	**Construction of the River Mole outfall through the existing noise bund** To construction the outfall from the On-airport WWTW to the River Mole through the existing noise bund via trenchless techniques, by directionally drilling the outfall pipe to the River Mole beneath the noise bund.	Construction	CoCP – DCO Requirement 7	**Second Change Application Report** [REP6-072], Table 2: Noise and Vibration
CC-1	Climate Change	To reduce the risks of extreme weather event impacts on the Project construction site and staff	**Construction management measures** The following measures will be implemented through construction: • Measures to ensure appropriate storage and handling of materials and products that reduce the impact of accidental spillages and potential impacts from simultaneous flooding events. • An arboricultural and vegetation method statement will be prepared to ensure green infrastructure assets are retained wherever possible and maintained.	Construction	CoCP – DCO Requirements 7 and 28	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			• Measures within the Soil Management Strategy to conserving soil resources, avoiding damage to soil structures, maintaining soil drainage and reinstating soil profiles during construction. • Managing waterlogged palaeo-channels that are identified during works and the process for managing palaeo-channels. • Measures to control dust and other emissions during construction including the preparation of Construction Dust Management Plans. • Best practice construction methods to mitigate potential in-combination climate change impacts, for example, from climate change on groundwater receptors. • Cooling and ventilation systems will be included in the design of temporary office buildings that are sufficient to deal with projected climate changes and deal with overheating risk and will follow appropriate guidance from the Chartered Institution of Building Services Engineers (CIBSE). • Provision of staff working protocols, such as access to cool spaces. • Avoidance of temporary buildings and construction spaces being location in high flood risk zones where practicable. • Temporary flood protection or floodwater diversion. • Avoidance of operation-critical building systems and utilities being located on the ground floor or below projected flood levels. • Lightning protection for critical mechanical, electrical and communications equipment alongside relevant staff working protocols for storm wind and lightning risks. • Regular visual inspections of temporary building roofs and canopies. • Snow and ice protection measures maintained for cold spells. • Water stress and drought measures for capturing rainwater and using water efficient appliances. • In addition to this, evidence of climate change projections will be to be considered in relevant contractor risk assessments.			

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
CC-2	Climate Change	To reduce the impacts on construction during increasing intensity, duration and new record high and lows of extreme weather events changing with climate change	**Adverse weather measures in construction** Prior to construction, GAL will consider the risk of adverse weather during the construction period and will implement measures considered necessary, to appropriately manage extreme weather events including training for staff.	Construction	CoCP – DCO Requirement 7	**ES Chapter 15: Climate Change** [APP-040], Table 15.8.4 **ES Appendix 15.8.1: Climate Change Resilience Assessment** [APP-187], Table 2.1.1
CC-3	Climate Change	To reduce the increased risk of overheating in nearby households	**Noise Insulation Scheme** This voluntary scheme by Gatwick for offsite residential buildings or dwellings that qualify will offer acoustic and ventilation measures to reduce noise impacts. It could also reduce overheating risk to households that sign up to the scheme, as the ventilators allow residents to keep windows closed.	Construction and Operation	CoCP – DCO Requirement 7 Noise Insulation Scheme – DCO Requirement	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1 **ES Appendix 15.9.1: In-combination Climate Change Impact Assessment** [APP-188], Table 1.1.1
CC-4	Climate Change	To replace lost habitat areas and create new areas with high value habitat for enhancing green infrastructure, green cover and ecosystem resilience.	**Creation of new high value habitats** Creation of new high value habitats along the new channel of the River Mole, within Museum Field and within the mitigation area in the western part of the Project site. To provide new wet and dry neutral grassland habitats for fauna displaced during the diversion of the River Mole, enhancing existing habitats and increasing the resilience of flora subject to increased drought conditions in future.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1
CC-5	Climate Change	To increase the resilience of the River	**Realignment of the River Mole**	Operation	oLEMP – DCO Requirement 8	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		Mole under climate change and the Project	Natural plan form to improve flow regime increasing the existing capacity of the river. This mitigation will also increase the resilience of the surrounding area to flooding, including from a changing climate and provide additional habitats.		Design Principles – Requirements 4 and 10	**ES Appendix 15.9.1: In-combination Climate Change Impacts Assessment** [APP-188], Table 1.1.1
CC-6	Climate Change	To replace lost floodplain storage during construction and reduce flood risk in future.	**Flood compensation areas** New flood compensation areas (FCA) in Museum Field and Car Park X.	Operation	Flood Compensation Delivery Plan – DCO Requirement 23 oLEMP - DCO Requirement 8 Design Principles – DCO Requirements 4 and 10 Flood risk activity permit	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1 **ES Appendix 15.9.1: In-combination Climate Change Impacts Assessment** [APP-188], Table 1.1.1
CC-7	Climate Change	To reduce the increased risk of surface water flooding from climate change and the Project	**Additional surface water attenuation** The Project includes a number of storage features within the drainage network, these will be sufficient for the mitigation and to minimise any impact on water quality may include: • a below ground storage Car Park Y up to 32,000m3 • within the existing airfield water drainage network • a new surface water drainage pumping facility from the Pond A catchment	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1
CC-8	Climate Change	To reduce the increased risk of river and surface water flooding from climate change and the Project	**Additional water infrastructure** In addition to the FCAs and additional attenuation the following will be delivered: • airfield syphons connections are proposed to retain floodplain connection on both sides of the proposed taxiways.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			• syphons beneath the noise bund would maintain floodplain connectivity. • new water treatment works would increase the capacity of the long-term storage lagoons • a new pumping station in the southwest zone which will be sized based on the final design of the Project to ensure runoff from new impermeable area from the runway and taxiways within the existing Pond M catchment is controlled to greenfield runoff rates.			
CC-9	Climate Change	To reduce the increased risk of surface water flooding and reaching drainage capacity from climate change and the Project.	**Highway Drainage Design** As part of the detailed design for the highway works, a drainage network will be installed which may include carrier drains, filter drains, ditches, swales and attenuation ponds/basins, along with flow control arrangements to limit discharges to watercourses.	Operation	Surface Access Drainage Strategy – DCO Requirement 11	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1
CC-10	Climate Change	To reduce erosion from overuse and extreme events to public paths.	**Public Rights of Way Management Strategy** Management measures or temporary diversions to safely maintain access along PRoW will be implemented during construction including NCR21, Sussex Border Path and any other PRoW in the vicinity of the Car Park B construction compound. Certain PRoW will be permanently diverted and/or stopped up.	Construction and Operation	PRoW Management Strategy – DCO Requirement 22	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1 **ES Appendix 15.9.1: In-combination Climate Change Impacts Assessment** [APP-188], Table 1.1.1
CC-11	Climate Change	To reduce the negative effects of extreme events on public behaviour and patterns of use place.	**Replacement open space** There would be replacement public open space at Longbridge Roundabout and Car Park B together with new footpaths. These would fully mitigate the loss of open space required for the Project, particularly that at Riverside Garden Park and it would provide additional space to enhance the environment.	Operation	Open space delivery plan – DCO Article 40 oLEMP – DCO Requirement 8	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1 **ES Appendix 15.9.1: In-combination**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
						Climate Change Impacts Assessment [APP-188], Table 1.1.1
CC-12	Climate Change	To enhance the character and biodiversity of the airport and surrounding landscape/townscape. To enhance the screening capacity of visually significant vegetation.	**Outline Landscape and Ecology Management Plan (oLEMP)** Environmental mitigation areas and landscape zones would be created as part of the Project including planting woodland, tree, scrub, shrub, wetland, amenity and grassland planting. These will be maintained and managed through the operation of the project. There will be consideration of climate change in the plant species choice and design of landscaping. In particular, resilience to extreme weather conditions and climate change. This includes drought resistant species in the planting options to increase the resilience of plants to future drought conditions.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 15: Climate Change** [APP-040], Tables 15.8.4 and 15.9.1 **ES Appendix 15.8.1: Climate Change Resilience Assessment** [APP-187], Table 2.1.1 **ES Appendix 15.9.1: In-combination Climate Change Impacts Assessment** [APP-188], Table 1.1.1
CC-13	Climate Change	To reduce the reliance on the national grid and to reduce the risk of climate change on the Project (e.g. risk of overheating)	**Consideration of climate change measures in design** Detailed design will consider how to reduce reliance on the energy grid and to incorporate climate resilience measures to reduce the risk of climate change, e.g. in the event of prolonged warmer / colder seasons and more extreme temperature events in particular low carbon heating and cooling systems and ventilation systems. It will also consider measures to reduce water use and increase re-use across new buildings, including a requirement for new buildings to be designed to meet the minimum standards for BREEAM ‘Excellent’ rating within the Wate Category.	Operation	Design Principles – DCO Requirements 4 and 10	**ES Chapter 15: Climate Change** [APP-040], Table 15.8.4 **ES Appendix 15.8.1: Climate Change Resilience Assessment** [APP-187], Table 2.1.1 **Second Change Application Report**

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
						[REP6-072], Table 2: Climate Change
CC-14	Climate Change	To reduce the impacts of adverse weather events during operation and associated negative health implications for passengers and staff	**Adverse weather plans in operation** Plans are required to be in place to consider all airside operations areas can sustain stable operations in the event of an adverse weather event including processes and procedures for different extreme weather events.	Operation	Existing legislative regimes	**ES Chapter 15: Climate Change** [APP-040], Table 15.8.4 **ES Appendix 15.8.1: Climate Change Resilience Assessment** [APP-187], Table 2.1.1
CC-15	Climate Change	To reduce the risk of flooding and the extent of the impacts of flooding on the Project during construction and operation.	**Flood Resilience Statement** To set out how flood events will be managed during the construction and operation of the Project, including warning systems and well-defined management and evacuation procedures.	Construction and Operation	Flood Resilience Statement – DCO Requirement 24	**ES Chapter 15: Climate Change** [APP-040], Table 15.9.1
CC-16	Climate Change	To mitigate against potential drought conditions in the design the on-airport WWTW.	**On-airport WWTW – drainage measures** Detailed design of the On-airport WWTW will include drainage measures to account for potential drought conditions.	Operation	Design Principles – DCO Requirements 4 and 10	**Second Change Application Report** [REP6-072], Table 2: Climate Change
GG-1	Greenhouse Gases	To reduce emissions arising from surface access.	**Adoption of the Surface Access Commitments (SAC)** Traffic during operation of the Project would be managed through the Surface Access Commitments. The SAC contains mode share targets that will increase the proportion of travel to and from the airport made by sustainable modes and	Construction and Operation	SAC – DCO Requirement 20	**ES Chapter 16: Greenhouse Gases** [REP4-005], paragraph 16.8.3

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			accommodates the increase in passenger and staff access to and from Gatwick Airport.			
GG-2	Greenhouse Gases	To reduce GHG emissions from construction of the Project, various aspects of the airport operations, and also emissions arising from surface access.	**Carbon Action Plan (CAP)** The CAP contains measures that will mitigate the emissions arising in respect of the project. It commits to key outcomes and outlines the actions that GAL could take in order to achieve such outcomes and in so doing, play a part in the global transition to a low carbon future for the aviation sector. It includes a list of measures that could be implemented to reduce emissions from on-site activity (construction, airside vehicles, energy and fixed plant and miscellaneous emissions) and aviation (aircraft emissions).	Construction and Operation	CAP – DCO Requirement 21	**ES Chapter 16: Greenhouse Gases** [REP4-005], paragraph 16.8.2
SE-1	Socio-Economic	To reduce adverse effects associated with the construction.	**Construction Practices** The CoCP will be implemented which sets out a number of practices that minimise adverse effects associated with the construction of the Project. Measures include: • Set hours of working. • Contractors signed up to and implementing Considerate Constructors' Scheme (CCS) or a locally recognised certification scheme • Engagement processes to keep the local community up to date.	Construction	CoCP – DCO Requirement 7 CCEP – DCO Requirement 7	**ES Chapter 17: Socio-Economics** [APP-042], Table 17.8.1
SE-2	Socio-Economic	To reduce the impact on local community facilities as a result of the introduction to the area of a temporary workforce.	**Construction compound facilities** Construction compounds would provide welfare facilities for most of the workforce (including canteen, toilets, rest rooms and wet rooms).	Construction	CoCP – DCO Requirement 7	**ES Chapter 17: Socio-Economics** [APP-042], Table 17.8.1
SE-3	Socio-Economic	To mitigate the impact of construction traffic	**Construction Traffic Management Plan** A Construction Traffic Management Plan will be implemented through construction:	Construction	CoCP – DCO Requirement 7	**ES Chapter 17: Socio-Economics** [APP-042], Table 17.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			• Measures to ensure the transport of construction materials and waste is managed as sustainably as practicable. • Scheduling of construction material and logistics traffic movements that need to come by road to arrive and depart outside of peak periods and to use designated routes into construction sites on the airport which are suitable for this type of traffic. • Designated routes for construction traffic to follow through the Strategic Road Network to avoid routing through the M23 Junction 10 and Hazelwick Air Quality Management Area. • Delivery Management System (DMS) to manage material deliveries to site and collections by scheduling and re-timing them in a manner that consciously avoids the most congested times of the day.		oCTMP – DCO Requirement 12	
SE-4	Socio-Economic	To mitigate the impact of construction traffic.	**Construction Workforce Travel Plan** A Construction Workforce Travel Plan will be implemented for construction workers, including: • Encouraging/ incentivising public transport use for the construction workforce. • timing shift patterns to reduce pressure on local transport services and roads where practicable, with particular consideration to commuter peak periods	Construction	CoCP – DCO Requirement 7 oCWTP – DCO Requirement 13	**ES Chapter 17: Socio-Economics** [APP-042], Table 17.8.1
SE-5	Socio-Economic	To mitigate employment and labour market impacts (Enhancement).	**Employment, Skills and Business Strategy (ESBS)** The Project includes the adoption of the Employment, Skills and Business Strategy (ESBS) to maximise economic benefits for communities and business by creating the conditions for sustainable employment, skills development and career progression (Strand 1); and enhancements to the productivity and growth of business (Strand 2).	Construction and Operation	ESBS - Section 106 agreement	**ES Chapter 17: Socio-Economics** [APP-042], Table 17.8.1
SE-6	Socio-Economic	To provide replacement public open space and	**Replacement open space**	Construction and Operation	oLEMP – DCO Requirement 8	**ES Chapter 17: Socio-Economics** [APP-042], Table 17.8.1 and

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		footpaths to mitigate the loss open space required by the Project.	There would be approximately 1.95 ha of replacement public open space at Longbridge Roundabout and Car Park B together with new footpaths. These would fully mitigate the loss of open space required for the Project, particularly that at Riverside Garden Park and it would provide additional space to enhance the environment.		Open space delivery plan - DCO Article 40	paragraphs 17.9.27-17.9.30
HW-1	Health and Wellbeing	To reduce impacts on local healthcare providers.	**Healthcare for construction workers** Provision and implementation of a protocol setting out the first point of contact for health queries for construction workers. This will include physical and mental health promotion information, access to on-site first aid and provide information about the appropriate avenues for further healthcare support where necessary. Proportionate to the scale of workforce onsite and the need to supplement the normal 111 service, a dedicated healthcare practitioner would be available for construction workers to consult with. These initiatives would limit the need for workers to travel to use other local community facilities. The objective of the protocol is to minimise use of local NHS primary healthcare providers and inappropriate use of A&E services. The protocol will be prepared during the pre-construction period once a Principal Contractor has been appointed. The protocol would integrate with and complement the Principal Contractor's occupational health and occupational hygiene services that manage workplace health risks.	Construction	CoCP – DCO Requirement 7	**ES Chapter 18: Health and Wellbeing** [APP-043], Table 18.7.1
HW-2	Health and Wellbeing	To reduce impacts on local healthcare providers.	**Healthcare for airport passengers and visitors** Onsite at the Airport GAL will provide a level of first aid and first response expertise to determine the need for ambulance callouts that maintains, or improves upon, the current Gatwick Control Centre records for the annual rate of passengers transferred to hospital as a percentage of total passengers. This will be achieved by scaling first responder provision commensurate with passenger numbers. This will include onsite personnel with appropriate training as well as equipment such as first aid kits and Automated External Defibrillators. The objective of this measure is to provide	Operation	Section 106 agreement	**ES Chapter 18: Health and Wellbeing** [APP-043], Table 18.7.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			appropriate first responder healthcare for passengers experiencing a medical event at the Airport, whilst minimising inappropriate use of ambulance and A&E services.			
HW-3	Health and Wellbeing	To promote health equity through benefits to local vulnerable groups.	**Accessibility to Employment for vulnerable groups** The Employment Skills and Business Strategy (ESBS) includes a series of training, employment and procurement initiatives that will aid in addressing existing local barriers to a range of employment opportunities locally. The ESBS includes relevant measures targeted at vulnerable groups. Specifically, as far as reasonably practicable (e.g. subject to standards and security checks) provide a targeted scheme of access to operational Airport training schemes and apprenticeships for young people in the local and regional area who are Not in Education, Employment, or Training (NEET). To work with local education and training providers to support opportunities to provide local adult learning linked to operational Airport related (or wider supply chain) job opportunities relevant to disadvantaged adults facing skills barriers to employment opportunities.	Construction and Operation	ESBS - Section 106 agreement	**ES Chapter 18: Health and Wellbeing** [APP-043], Table 18.7.1
HW-4	Health and Wellbeing	To monitor benefits to local vulnerable groups.	**Employment monitoring for vulnerable groups** Monitoring of the proportion of local people with long-term unemployment, high job instability or low income characteristics who enter employment with GAL would be undertaken as part of the Annual Monitoring Report described in the ESBS to confirm the benefit and further tailor the targeting of local vulnerable groups. Monitoring of the proportion of NEETs taking up, and completing, training opportunities with GAL would be undertaken to confirm the benefit and further tailor the targeting of local vulnerable groups. This information would be shared on an annual basis with West Sussex public health team via the Council.	Construction and Operation	ESBS - Section 106 agreement	**ES Chapter 18: Health and Wellbeing** [APP-043], Table 18.7.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
HW-5	Health and Wellbeing	To promote health equity by supporting uptake of the Noise Insulation Scheme for local vulnerable groups.	**Noise Insulation Scheme and vulnerable groups** Targeted support to promote uptake of the Noise Insulation Scheme amongst vulnerable groups within the scheme area. For example, tenants eligibility, responding to language or literacy barriers, safeguarding and clear communication protocols for surveys and works in the homes of vulnerable persons.	Construction	Noise Insulation Scheme – DCO Requirement 18	**ES Chapter 18: Health and Wellbeing** [APP-043], Table 18.7.1
HW-6	Health and Wellbeing	To reduce impacts from changes in lighting.	**Community Fund** The Community Fund could be used to provide discretionary support for any vulnerable groups experiencing effects.	Construction and Operation	Community Fund – Section 106 agreement	**ES Chapter 18: Health and Wellbeing** [APP-043], paragraph 18.8.453
HW-7	Health and Wellbeing	To monitor impacts on local healthcare providers.	**Ambulance callout rate monitoring** Total medical calls to Gatwick Control Centre and the number of passengers subsequently transferred to hospital will be shared with GATCOM annually.	Operation	Section 106 agreement	**ES Chapter 18: Health and Wellbeing** [APP-043], Table 18.7.1
HW-8	Health and Wellbeing	To promote health equity by mitigating in-combination effects in specific circumstances for vulnerable groups	**Community Fund** The Community Fund could be used to provide discretionary support for any vulnerable groups experiencing in-combination effects.	Construction and Operation	Community Fund – Section 106 agreement	**ES Chapter 18: Health and Wellbeing** [APP-043] paragraph 18.11.22
AR-1	Agricultural Land Use and Recreation	To maintain the quality of agricultural land temporarily affected by disturbance during the construction period.	**Soil Management Strategy** Soil management plans will be approved in substantial accordance with the Soil Management Strategy and complied with. The plans will ensure the conservation of soil resources; avoidance of damage to soil structures; maintenance of soil drainage; and the reinstatement, where required, of soil profiles as near as possible to their former condition.	Construction	CoCP – DCO Requirement 7 SMS – DCO Requirement 29	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
			The plans will provide for the provision of a suitably qualified person to monitor the quality of the soil stripping storage and restoration operations			
AR-2	Agricultural Land Use and Recreation	To maintain the operation of farming enterprises during the construction period.	**Farm Holdings** Implementation of measures to reduce, as far as practicable, the effects of construction activities on farm holdings. Where appropriate, these would include the maintenance of farm access locations; provision of appropriate fencing; maintenance of water supplies; co-ordination of timing of construction works to facilitate farming operations; and measures to address the potential risks of the spread of animal and plant diseases.	Construction	CoCP – DCO Requirement 7	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1
AR-3	Agricultural Land Use and Recreation	To provide a planned approach to the construction of the Project which would reduce disruption to PRoW and NCR users, as far as possible.	**PRoW management and temporary diversions during construction** Management measures and temporary diversions to safely maintain access along PRoWs will be implemented during construction of the Project, including NCR21, Sussex Border Path and any other PRoWs.. The diversions will be monitored during the construction period. Detailed PRoW Implementation Plans for individual PRoWs will be approved in substantial accordance with the PRoW Management Strategy and in accordance with the Rights of Way and Access Plans.	Construction	PRoW Management Strategy – DCO Requirement 22	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1 **Second Change Application Report** [REP6-072], Table 2: Agricultural Land Use and Recreation
AR-4	Agricultural Land Use and Recreation	Where land used by the community, including public open space, is taken for a road scheme it will generally be necessary to provide exchange land which must not be smaller in area and	**Replacement open space** There would be approximately 1.95 ha of replacement public open space at Longbridge Roundabout and Car Park B together with new footpaths. These would fully mitigate the loss of open space required for the Project, particularly that at Riverside Garden Park and it would provide additional space to enhance the environment.	Operation	oLEMP – DCO Requirement 8 Open space delivery plan - DCO Article 40	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		must be equally advantageous to the users of the land required by the road. The location of the public open space that would be released in Riverside Garden Park and Church Meadows and the proposed replacement areas are shown on ES Figure 19.8.1.				
AR-5	Agricultural Land Use and Recreation	To provide a public benefit through the provision of an additional pedestrian route through Riverside Garden Park to link to the Sussex Border Path.	**Additional Pedestrian Route between Car Park B and Riverside Garden Park** Provision of a permanent additional pedestrian route linking Riverside Garden Park into the replacement public open space in Car Park B, linking with the Sussex Border Path to the north of the A23.	Operation	Design Principles – DCO Requirements 4-6 oLEMP – DCO Requirement 8 Surface Access Highways Plans – Structure Section Drawings Open space delivery plan - DCO Article 40	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1
AR-6	Agricultural Land Use and Recreation	To provide a public benefit through the provision of an additional route into	**Provision of shared pedestrian and cyclist ramp into the Riverside Garden Park**	Operation	Surface Access Highways Plans – Structure Section Drawings	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		Riverside Garden Park.	Provision of a shared pedestrian and cyclist ramp between the footway on the northern side of the A23 near the Longbridge Roundabout into Riverside Garden Park.		oLEMP – DCO Requirement 8	
AR-7	Agricultural Land Use and Recreation	To maintain public access along the Sussex Border Path during construction and operation.	**Permanent diversion and stopping up of the Sussex Border Path (Footpath 346_2Sy)** Permanent stopping up and diversion of section of Footpath 346_2Sy to the north of Car Park Y close to its existing alignment to re-join existing route of this section of the Sussex Border Path at North Terminal Roundabout. Permanent stopping up of this section of Footpath 346_2Sy. This section would remain as part of the promoted Sussex Border Path route, but the classification of the section of footpath would be removed and replaced by the shared use Active Travel cyclist and pedestrian route along this section of highway.	Construction and Operation	PRoW Management Strategy – DCO Requirement 22	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1
AR-8	Agricultural Land Use and Recreation	To maintain public access along Footpath 367y.	**Permanent diversion of the Footpath 367Sy** Permanent stopping up and diversion of section of Footpath 367Sy to the south of current alignment.	Construction and Operation	PRoW Management Strategy – DCO Requirement 22	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1
AR-9	Agricultural Land Use and Recreation	To provide a circular route opportunity to benefit to local communities for health and well-being.	**Museum Field Environmental Mitigation Area** Provision of new recreational routes around the proposed flood compensation area to the east of Museum Field to enhance local public access opportunities.	Operation	oLEMP – DCO Requirement 8	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Table 19.8.1
AR-10	Agricultural Land Use and Recreation	To provide an alternative pedestrian route when Footpath 360_1Sy (along the access road to	**Additional Pedestrian Route** Provision of an additional temporary pedestrian route during the construction of the constructed wetland (reed bed) system, linking Footpath 360_1Sy to Radford Road to the south.	Construction	PRoW Management Strategy – DCO Requirement 22	**Change Application Report** [AS-139], Table 6 Agricultural Land Use and Recreation

Ref	Topic	Potential Impact	Mitigation / Commitment	Phase (Construction and Operation)	Securing Mechanism	ES Source
		Crawley Sewage Treatment Works) would be in use by construction vehicles.				
AR-11	Agricultural Land Use and Recreation	To provide additional measures for the PRoWs, if identified as necessary during construction of the Project and as a result of detailed design.	**Additional Measures for PRoWs during construction** If additional measures are identified as necessary during construction of the Project, including the consideration of improvements to NCR21 south of the airport, these would be agreed with the relevant Local Authorities and landowners (where relevant) and incorporated into the detailed PRoW Implementation Plan(s).	Construction	PRoW Management Strategy – DCO Requirement 22	**ES Chapter 19: Agricultural Land Use and Recreation** [APP-044], Paragraph 4.4.7