



# Gatwick Airport Northern Runway Project

## Second Change Application Report

**Book 10**

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## Executive Summary

This Second Change Application Report supports a formal request to change the application submitted by Gatwick Airport Limited ('GAL' and the 'Applicant') for a development consent order under section 37 of the Planning Act 2008 for the proposed Gatwick Airport Northern Runway Project, accepted for Examination on 03 August 2023 (the Application).

The Applicant submitted notification of a Proposed Change to the application (the Second Change Notification) on 7 May 2024, comprising a **Covering Letter** [\[AS-145\]](#) and **Second Notification of Proposed Project Change Report** [\[AS-146\]](#) (the "Second Notification Report").

As explained in the Second Notification Report, the Applicant identified a need to put forward the change to provide an On-airport Wastewater Treatment Works facility ('Project Change 4') as a result of Thames Water Utilities Limited ('TWUL') being unable to confirm, within the timescales of this Examination, the effects of the Project on its receiving network and process infrastructure, or to confirm positively that it will be able to include any upgrades to its infrastructure at the appropriate time within the regulatory funding cycles, as modelling work on the future capacity of the local network is currently ongoing. As a result of this uncertainty, TWUL requested a Requirement be included in the Draft DCO that specifies that no airport growth arising from the Project can be implemented (and wastewater flows discharged) until modelled wastewater flows have been agreed by TWUL and any necessary upgrade works to TWUL's network and processing facilities have been implemented. The Applicant does not consider that it would be appropriate to include such a requirement in the Draft DCO.

The Applicant is putting forward this Second Change Application as an 'alternative' option in the DCO, were the Secretary of State to be minded to include a pre-commencement restriction in the DCO as described above. The bespoke On-airport Wastewater Treatment Works, proposed as part of this Second Change Application, would obviate the need for such a DCO Requirement, as all additional flows generated by the Project (and indeed all airport flows more generally) would instead be serviced by this on-airport facility. This would mean there would be no adverse impact on the TWUL local network and facilities, and indeed there would be a beneficial impact as current (and future) airport flows would not enter TWUL's network.

The Examining Authority (the ExA) set out its advice on the procedural implications of the Proposed Change and the scale and nature of the proposed consultation approach in its **Procedural Decision** [\[AS-147\]](#) dated 13 May 2024. In this response, the ExA confirmed that the Applicant's proposed scope of consultation activities provides an appropriate basis for non-statutory consultation.

The Applicant has subsequently carried out non-statutory consultation on the Proposed Change between 14 May and 11 June 2024. The consultation feedback has been carefully considered prior to making this Second Change Application and this is explained in the accompanying **Consultation Report Second Addendum** (Doc Ref. 10.48).

The Applicant considers that the Proposed Change is non-material. The change would not involve the inclusion of additional land within the Order Limits or require the acquisition of different or new rights over land, nor would the change give rise to any materially new or materially different environmental effects in comparison to those assessed and reported in the **Environmental Statement** [APP-026 to APP-217]. As such, The Infrastructure Planning (Compulsory Acquisition) Regulations 2010 (“CA Regulations”) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“EIA Regulations”) are not engaged by the Proposed Change.

The Applicant considers that the Proposed Change would not be so substantial as to constitute a materially different project in nature or substance than that originally applied for. The **Procedural Decision** [[AS-147](#)] of 13 May 2024 confirms that the ExA is minded to agree with the Applicant’s view.

The Applicant has considered responses to the consultation and considers that no amendments are required to the Proposed Change as result of the responses. Detailed responses to matters raised during consultation are set out in the **Consultation Report Second Addendum** (Doc Ref. 10.48).

The Applicant has submitted this Second Change Application being mindful of the timings in the context of the ongoing Examination. The Applicant has endeavoured to submit the Second Change Application as soon as possible following the close of consultation and as part of a formal Deadline, with a period of 9 weeks remaining within the Examination for its details to be further considered and incorporated into the Application without prejudicing any party or challenging the Examination Timetable.

## 1 Second Request to Change the Application

### 1.1. Background

1.1.1 Gatwick Airport Limited (“GAL” or the “Applicant”) submitted an application for a development consent order (the “Application”) under section 37 of the Planning Act 2008 for the proposed Gatwick Airport Northern Runway Project (the “Project”). The Application was subsequently accepted for Examination by the Planning Inspectorate (on behalf of the relevant Secretary of State) on 03 August 2023. The ExA was appointed on 15 August 2023 [PD-004] and the Examination commenced on 27 February 2024.

1.1.2 On 8 March 2024, three changes to the Application were accepted for Examination by the ExA [PD-011] following the Applicant’s submission of a formal Change Request (“Change Request 1”) on 13 February 2024 [AS-124 to AS-143]. The three accepted Project changes comprised:

- Project Change 1: Extension to the design parameters for the North Terminal International Departure Lounge proposed southern extension.
- Project Change 2: Reduction in height of the proposed replacement Central Area Recycling Enclosure facility and change in its purpose.
- Project Change 3: Revision to the proposed water treatment works.

1.1.3 In accepting Change Request 1, the ExA agreed with the Applicant that the proposed Project changes were non-material and could be accepted in the Examination via a Procedural Decision made within the **Rule 8 Letter** [PD-011] on 8 March 2024.

### 1.2. Introduction to the Second Change Application

1.2.1 The Applicant has identified a need to put forward a further request for a Proposed Change to the Application (“Project Change 4”) and which is the subject of this Second Change Application. The change comprises the provision of an On-airport Wastewater Treatment Works as a result of TWUL being unable to confirm, within the timescales of this Examination, the effects of the Project on its receiving network and process infrastructure, or to confirm positively that it will be able to include any upgrades to its infrastructure at the appropriate time within the regulatory funding cycles, as modelling work on the future capacity of the local network is currently ongoing. As a result of this uncertainty, TWUL requested a Requirement be included in the Draft DCO that specifies that no airport growth arising from the Project can be implemented (and wastewater flows discharged) until modelled wastewater flows have been agreed by TWUL

and any necessary upgrade works to TWUL's network and processing facilities have been implemented.

- 1.2.2 Project Change 4 principally relates to the provision of an On-airport Wastewater Treatment Works to provide an alternative solution for wastewater treatment. The Applicant is putting forward this Second Change Application as an 'alternative' option in the DCO, were the Secretary of State to be minded to include a pre-commencement restriction in the DCO that precluded airport growth arising from the Project being implemented (and wastewater flows discharged) until modelled wastewater flows have been agreed by TWUL and any necessary upgrade works to TWUL's local network and processing facilities have been implemented. The bespoke on-airport facility would obviate the need for such a requirement, as all additional flows generated by the Project (and indeed all airport flows more generally) would instead be serviced by this on-airport facility. This would mean there would be no adverse impact on the TWUL network facilities, and indeed there would be a beneficial impact as current (and future) airport flows would not enter TWUL's local network.
- 1.2.3 Whilst engagement commenced with TWUL on the Project in 2019, there are a series of outstanding assessments being carried out by TWUL to establish whether upgrades are required to TWUL's existing network and processing facilities to accommodate future forecasted foul water flows from the airport as a result of the Project. These assessments are not expected to be fully completed until after the close of Examination (27 August 2024) (confirmed in **TWUL's response to ExQ1 WE.1.8 [REP3-149]**) and TWUL was unable to give the necessary assurances on the assessments at the **Issue Specific Hearing 7 (Other Environmental Matters)** on 1 May 2024 [EV13-001 to EV13-004].
- 1.2.4 As such and as explained in the **Applicant's response to ExQ1 WE.1.8 [REP3-105]** and orally at Issue Specific Hearing 7 (**ISH7 Transcript, Part 2 [EV13-006]**), the Applicant considers it necessary to put forward an alternative option to service wastewater flows from the Project (and the airport more generally) in lieu of any other restriction or control that could be placed on the operation of the Project against wastewater upgrades. This is explained further in **Section 2** of this report.
- 1.2.5 In the process of identifying and addressing a change to the Application, the Applicant has considered the Planning Inspectorate's Advice Note Sixteen: Requests to change applications after they have been accepted for examination

(“Advice Note Sixteen”) (Version 3, March 2023<sup>1</sup>) and the Planning Act 2008: Examination stage for Nationally Significant Infrastructure Projects<sup>2</sup>.

- 1.2.6 On 7 May 2024, the Applicant wrote to the ExA to notify of its intention to propose a further change to the application (the Second Change Notification). The Second Change Notification comprised a **Covering Letter** [AS-145] and the **Second Notification Report** [AS-146]. The **Second Notification Report** set out the Proposed Change, including the reason for the change, a preliminary environmental appraisal, a review of land rights implications and proposed updates to the Application documents that would follow if the change was made and accepted. It also put forward the Applicant’s proposed consultation approach and indicative programme for the ExA’s consideration.
- 1.2.7 The ExA set out its advice on the procedural implications of the change and the scale and nature of the proposed consultation approach in its **Procedural Decision** [AS-147] dated 13 May 2024. In its response, the ExA confirmed that the Applicant’s proposed scope of consultation activities provides an appropriate basis for non-statutory consultation.
- 1.2.8 The Applicant subsequently carried out non-statutory consultation on the Project Change 4 between 14 May and 11 June 2024. The consultation feedback has been carefully considered prior to making this formal change request and the Applicant’s response to it is set out in the accompanying **Consultation Report Second Addendum** (Doc Ref. 10.48).
- 1.2.9 The Applicant considers that the Proposed Change is non-material. The change would not involve the inclusion of additional land within the Order Limits or require the acquisition of different or new rights over land, nor would the change give rise to any materially new or materially different environmental effects in comparison to those assessed and reported in the **Environmental Statement** [APP-026 to APP-217]. As such, The Infrastructure Planning (Compulsory Acquisition) Regulations 2010 (“CA Regulations”) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“EIA Regulations”) are not engaged by the Proposed Change.
- 1.2.10 The Applicant considers that the Proposed Change would not be so substantial as to constitute a materially different project in nature or substance than that

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<sup>1</sup> <https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-sixteen-requests-to-change-applications-after-they-have-been-accepted-for-examination/nationally-significant-infrastructure-projects-advice-note-sixteen-requests-to-change-applications-after-they-have-been-accepted-for-examination>

<sup>2</sup> <https://www.gov.uk/guidance/planning-act-2008-examination-stage-for-nationally-significant-infrastructure-projects>



originally applied for. The **Procedural Decision** [\[AS-147\]](#) of 13 May 2024 confirms that the ExA is minded to agree with the Applicant's view.

- 1.2.11 The Applicant has considered responses to the consultation and considers that no amendments are required to the Proposed Change as result of the responses. Detailed responses to matters raised during consultation are set out in the **Consultation Report Second Addendum** (Doc Ref. 10.48).
- 1.2.12 The Applicant has submitted this Second Change Application being mindful of the timings in the context of the ongoing Examination. The Applicant has endeavoured to submit the Second Change Application as soon as possible following the close of consultation and as part of a formal Deadline, with a period of 9 weeks remaining within the Examination for its details to be further considered and incorporated into the Application without prejudicing any party or challenging the Examination Timetable.

### 1.3. Purpose of this Report

- 1.3.1 The purpose of this Second Change Application Report is to make a formal request to the ExA to change the Application (the Second Change Application). This report constitutes Step 4 of the process summarised on Figure 1 of Advice Note Sixteen in which the Applicant makes a formal request to the ExA to change the Application by providing the relevant information set out in Figure 2 of Advice Note Sixteen. The information requested in Figure 2a of Advice Note Sixteen was included in the **Second Notification Report** [\[AS-146\]](#) and the information requested in Figure 2b of Advice Note Sixteen is contained within this report and the accompanying documents.
- 1.3.2 This Second Change Application Report provides a description of the Proposed Change, including the need for the change, details of engagement and consultation undertaken, an environmental appraisal of the change identifying any new or different likely significant environmental effects, any land rights implications and provides details of Proposed Changes to the relevant Application documents.

### 1.4. Report Structure

- 1.4.1 The remainder of this Second Change Application Report is structured as follows:
- **Section 2: Project Change 4** – describes the Proposed Change, the need for the change and any land implications of the change..
  - **Section 3: Environmental Appraisal** – provides the environmental appraisal of the change and the consequential amendments to the Application documents, which either form part of this Second Change

Application or which would be submitted to an Examination Deadline should the Second Change Application be accepted.

- **Section 4: Non-Statutory Consultation** – explains how the Proposed Change has been subject to consultation and the summary of issues raised.

## 2 Project Change 4

### 2.1. Overview of the Proposed Change

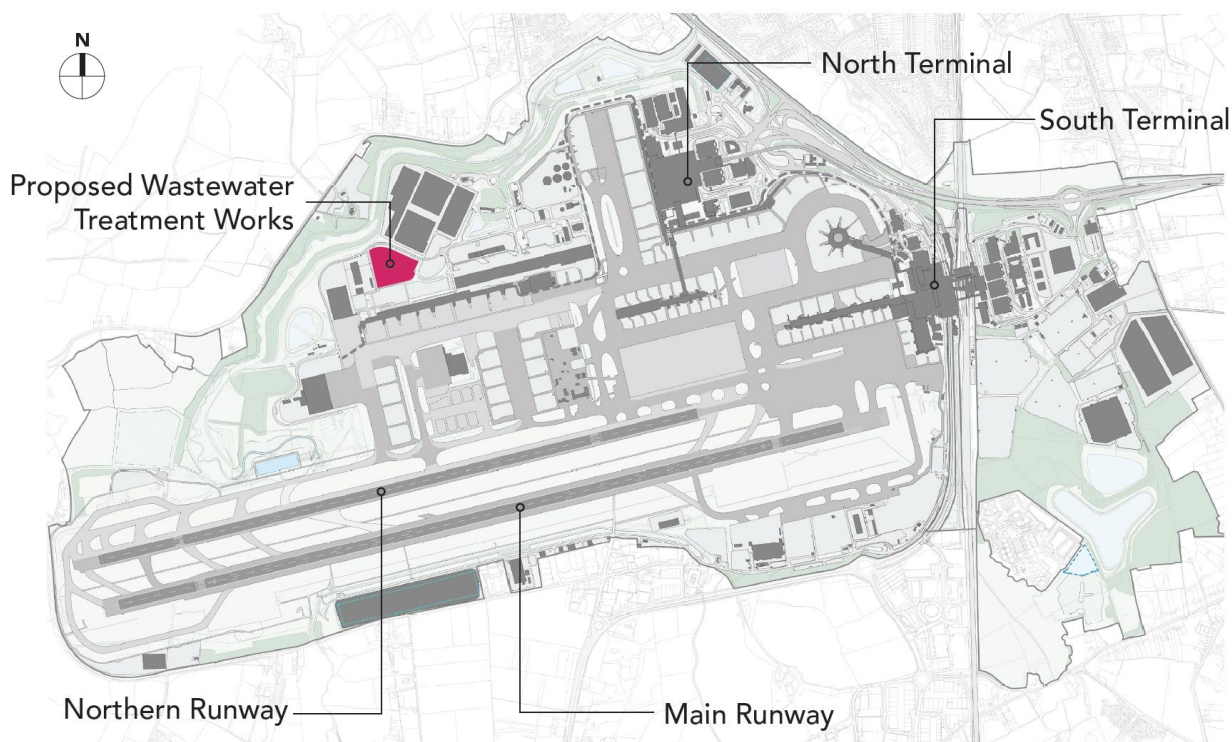
2.1.1 **Table 1** provides a brief summary of the Proposed Change, the materiality assessment and the justification for why Project Change 4 is being brought forward at this point during the Examination.

**Table 1: Summary of the Proposed Change**

Change No.	Change Title	Brief Summary	Materiality Assessment	Justification for the Proposed Change
<b>Project Change 4</b>	Provision of an On-airport Wastewater Treatment Works (WWTW)	Revision to the wastewater strategy to provide an On-airport Wastewater Treatment Works facility (the "On-airport WWTW"), located within the existing Self Park North car park and resulting increase in the number of car parking spaces to be accommodated in the proposed North Terminal Long Stack decked car park.	Non-material	To provide an alternative solution for wastewater treatment, to mitigate against ongoing uncertainty regarding capacity constraints in TWUL's wastewater treatment network.

2.1.2 The location of the proposed On-airport WWTW is shown in pink in **Figure 1** below.

**Figure 1: Location of the On-airport WWTW**



## 2.2. Description of the Proposed Change

2.2.1 Gatwick Airport currently discharges its wastewater to two separate TWUL catchments, Horley Sewage Treatment Works (STW) and Crawley STW. Through discussions with TWUL on the Project, which began in 2019, the Applicant was advised that the Horley STW was constrained and that greater wastewater capacity was available at the Crawley STW. This informed the Project's proposed wastewater strategy in that it proposes to reduce flows to Horley STW and direct more of the airport's flows to Crawley STW, whilst also putting forward measures to reduce flows into the sewer system and provide additional capacity.

2.2.2 The wastewater strategy in the DCO Application (and within the Order Limits), as submitted in **ES Chapter 11: Water Environment [APP-036]** and **ES Appendix 11.9.7: Wastewater Assessment [APP-150]**, provides for the Project and proposes to improve capacity and resilience to minimise any impacts on TWUL's assets through the:

- provision of pumps and pumping main at Pumping Station PS06 to provide additional wastewater capacity;
- construction of a new Pumping Station on the eastern side of the Brighton-London mainline railway to convey all wastewater flows from this part of the airport's catchment which current drains to the Horley STW, to instead convey all wastewater flows to the Crawley STW;

- construction of a new Pumping Station (Pumping Station 7a), located close to the existing Cargo Facility (shown in blue on ES Figure 4.2.1a [[REP1-019](#)]), to accommodate flows from the extended North Terminal and Pier 7, and provide a pipeline connection to Crawley STW;
- construction of a new Pumping Station (Pumping Station 2a), located close to the existing Pumping Station 2 (to be demolished), together with new connections via Pumping Station 2 and the main sewer; and
- provision of on-airport facilities to treat de-icer contaminated surface water held by the existing long-term storage lagoons (comprised in Project Change 3 explained in the **Change Application Report** [[AS-139](#)]), which would remove the need to send these trade effluent flows from the airport to the Crawley STW, thus reducing the load on this facility.

2.2.3 The hydraulic modelling work on the airport's wastewater system, reported in **ES Appendix 11.9.7** [[APP-150](#)], was provided to TWUL to enable it, as the relevant sewerage undertaker, to assess the Project's impact on its own infrastructure taking account of wider projected growth in the local area on its STWs and pipe networks. Initial survey work on the Gatwick Airport estate was carried out by TWUL in early 2021 and the scope of further studies has been agreed between the parties. However, the full results of the detailed assessments by TWUL will not be available until after the close of the Examination (confirmed in **TWUL's response to ExQ1 WE.1.8** [[REP3-149](#)]). TWUL has requested a DCO requirement to restrict airport growth under the Project until modelled flows have been agreed with TWUL and any necessary (but currently unknown) network upgrade works have been implemented (in **TWUL's Relevant Representation** [[RR-4518](#)] and **Written Representations** [[REP1-103](#)]).

2.2.4 TWUL has a statutory obligation to accept "domestic" flows from the airport; however, despite provision of information from GAL regarding the likely volumes of flows as a result of the Project, it has not yet undertaken the necessary assessment to understand how the likely growth from Gatwick Airport will affect its assets at Horley and Crawley. As set out in further detail in **Section 2.3**, the Applicant is therefore putting forward Project Change 4 as an 'alternative' option in the DCO to deliver a bespoke on-airport facility were the Secretary of State minded to include the restriction sought by TWUL in order to ensure that there is no barrier to the Project's delivery.

2.2.5 The bespoke on-airport facility would treat all flows from the airport, including all additional flows generated by the Project and all airport flows more generally. This would be a change compared to the existing situation with no flows being discharged to TWUL's receiving network or process infrastructure. Further detail on the treatment process and the physical elements of the WWTW facility is provided below.

### 2.2.6 Project Change 4 comprises the:

- Provision of an On-airport Wastewater Treatment Works ('WWTW'), located within existing Self Park North car park shown on **ES Figure 4.2.1b** [[REP1-019](#)] and in **Figure 1** above.
- Provision of an associated network of wastewater infrastructure outside the On-airport WWTW but within the airport, including new rising mains and a new Pumping Station located next to the existing Gatwick Airport Police Station.
- Revisions to the proposed Pumping Stations and pipeline connections proposed as part of the DCO Application as submitted (and described in paragraph 2.2.2 above), comprising:
  - omission of the proposed Pumping Station on the eastern side of the Brighton-London mainline railway and its associated pipeline connections;
  - change to the pipeline connections associated to the proposed Pumping Station 7a to convey flows to the proposed On-airport WWTW (instead of being to Crawley STW); and
  - change to the proposed Pumping Station 2a to provide that its new rising main would convey flows to the proposed On-airport WWTW.
- Provision of a new pipe from the On-airport WWTW to a new outfall into the River Mole (constructed via trenchless techniques to avoid disturbance to the existing noise bund and existing trees) for the discharge of treated effluent from the proposed WWTW.
- Permanent loss of approximately 1,162 car parking spaces on the Self-Park North car park to accommodate the On-airport WWTW and a resulting increase in the number of car parking spaces to be accommodated in the proposed North Terminal Long Stay car park (under Work No. 32). This would be achieved by increasing the approximate dimensions of the decked area, but there is no resulting change to the area shown on the **Works Plans** (Doc Ref. 4.5) or maximum height on the **Parameter Plans** (Doc Ref. 4.7).
- Provision of two temporary construction compounds, collectively comprising approximately 7,000m<sup>2</sup> (0.7 hectares) in area. This would result in the temporary loss of approximately 250 car parking spaces in the Self-Park North car park, which would be temporarily re-provided within the North Terminal Long Stay decked car park (under Work No. 32).
- Provision of a temporary diversion of the Sussex Border Path (Footpath 346\_2Sy) during construction of the new Pumping Station located next to Gatwick Airport Police Station (described above).

### On-airport WWTW

2.2.7 The On-airport WWTW would require a footprint of approximately 2.2 hectares. The facility would include the following physical elements, with the maximum height of the proposed structures being up to 9.4m above ground level and up to 2m below ground level:

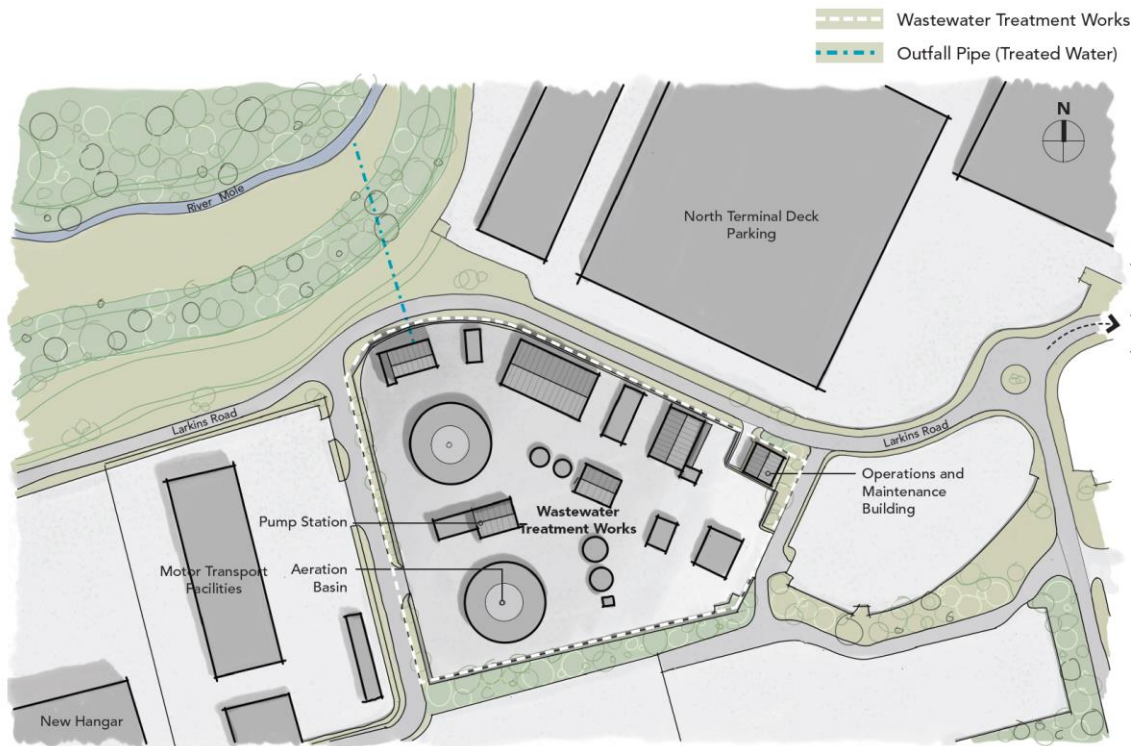
- Headworks (the entry point for raw wastewater);
- Two circular primary clarifiers, each of approximately 12m in diameter;
- Two aeration basins, each with secondary clarifiers;
- Gravity thickeners;
- Biotower (odour control facility);
- Rotary drum thickeners, belt filter presses and tertiary disk filter facilities, each housed in a dedicated building;
- Blower building accommodating four turbo blowers and one positive displacement blower;
- Chemical storage building;
- Associated pipelines and Pumping Stations;
- Flocculation tank and a rapid mix tank;
- Sludge blend facility and sludge storage area;
- Operations and maintenance building (up to 2-storeys);
- Truck loading area; and
- Outfall from the facility to the River Mole, including a concrete structure beside the River Mole to dissipate waste water energy prior to discharge to the watercourse<sup>3</sup>.

2.2.8 The physical elements within the On-airport WWTW are shown on the indicative layout in **Figure 2** below.

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<sup>3</sup> There is an alternative approach to energy dissipation for the River Mole outfall involving the provision of an enlarged chamber within the WWTW site boundary. However, a concrete structure has been assumed as a worst-case for assessment purposes.

**Figure 2: Indicative Layout of the On-airport WWTW**



- 2.2.9 An associated network of wastewater infrastructure would be required within the airport to serve the On-airport WWTW, including new rising mains and a new Pumping Station located next to the existing Gatwick Airport Police Station with a maximum height of 4m above ground level and 7m below ground level.
- 2.2.10 Other revisions would be required to the proposed Pumping Stations and pipeline connections proposed as part of the DCO Application as submitted (and described in paragraph 2.2.2 above), comprising:
- omission of the proposed Pumping Station on the eastern side of the Brighton-London mainline railway;
  - change to the pipeline connections associated to the proposed Pumping Station 7a to convey flows to the proposed On-airport WWTW (instead of being to Crawley STW); and
  - change to the proposed Pumping Station 2a to provide that its new rising main would convey flows to the proposed On-airport WWTW.
- 2.2.11 All other aspects of the Project’s wastewater strategy would remain as described in the DCO Application, namely in **ES Chapter 11: Water Environment** [APP-036], including the treatment of de-icer contaminated surface water run-off and discharge from the existing pollution storage lagoons being via a constructed wetland (reed bed) system, forming part of Project Change 3 (as accepted by the Examining Authority).



- 2.2.12 The On-airport WWTW would treat flows via a conventional activated sludge process with anoxic and / or anaerobic zones for nutrient removal. Chemical dosing would be required: metal salts for phosphorus removal, alkalinity for pH adjustment if needed and polymer for biosolids processing.
- 2.2.13 The flows into the On-airport WWTW would constitute predominantly domestic wastewater with very small inputs of trade effluent (TE). TE flows would originate from aircraft washing, hire car washing, cooling tower / air conditioning plant residual flows, waste disposal processes from the Central Area Recycling Enclosure (CARE) facility (e.g. bin and bottle washing for recycling) and fire fighting foam (PFAS-free) from the Fire Training Ground<sup>4</sup>. Based on GAL's hydraulic modelling, the TE flows would constitute less than 5% of the total dry weather flows to the new On-Airport WWTW. The majority of Gatwick Airport's TE flows are the result of de-icing activities that would be managed via the constructed wetland (reed bed) system (already proposed as part of the Project).
- 2.2.14 To mitigate and manage potential odour from the facility, all processes would be covered including the primary clarifiers, storage tanks and gravity thickeners. In particular, the foul air from the covered gravity thickeners would be treated by the biotower. The screening removal plant and the headworks would be enclosed within a building with an odour control unit installed to manage odour emissions.
- 2.2.15 The operation of the On-airport WWTW would entail raw wastewater entering the facility via the headworks for preliminary treatment. Once screened, the wastewater would pass through a grit removal process and then flow to the influent Pumping Station where it would be pumped to the primary clarifiers. There would be two primary clarifiers that would reduce the load on the biological treatment units (comprising the aeration basins and secondary clarifiers) by removing additional total suspended solids and biological oxygen demand.
- 2.2.16 The primary effluent flows would be treated via two aeration basins (with secondary clarifiers) and thickened using gravity thickeners and rotary drum thickeners (then referred to as 'sewage sludge'). The gravity thickeners would be within a steel framed building and the foul air generated from the sludge fermentation in the gravity thickeners would be treated within a biotower. Biotowers are typically filled with inorganic media whereby special microorganisms grow and form a biofilm. As the odorous air travels through the tower, the biofilm traps and breaks down a significant portion of the Hydrogen Sulphide (H<sub>2</sub>S), thus reducing the odour levels in this part of the process.
- 2.2.17 To further treat the sewage sludge, it will be de-watered on site and exported as 'cake', which is relatively inert, to a neighbouring Wastewater and Sewage

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<sup>4</sup> Both the CARE facility and the Fire Training Ground are to be removed and replaced as part of the Project.

sludge treatment facility, e.g. TWUL's Crawley STW or Southern Water's Goddards Green STW, subject to agreement with the third party.

- 2.2.18 It is anticipated that approximately 3 tonnes per day of total solids would be generated by the On-airport WWTW and therefore requiring two 'cake' lorry movements per week, meaning one arrival and one departure.
- 2.2.19 The On-airport WWTW would run on a 24/7 basis, staffed for 16 to 18 hours a day (two shifts a day) with callouts if required. Once constructed, it is anticipated that up to 5 full-time employees would be required for operation and maintenance of the On-airport WWTW.
- 2.2.20 The existing airport perimeter noise bund following the line of the River Mole in this area would be retained.
- 2.2.21 As the On-airport WWTW is located within the published flood zones and would discharge to the River Mole, the flood risk implications of the new works have been considered. Based on hydraulic modelling undertaken for the Project the new works are located outside the 1% (1 in 100) AEP plus 40% Credible Maximum Scenario flood extent and would therefore not remove existing flood plain or affect overland flow routes. The vulnerability classification of the On-airport WWTW has been assessed as Essential Infrastructure. The facility would operate during flood events and a hydraulic assessment has been undertaken that has determined there would be sufficient hydraulic head on the discharge pipe to continue to send flows to the River Mole in such circumstances.
- 2.2.22 The On-airport WWTW would be designed and maintained to be resilient to climate change, in line with the Project's **Design Principles** [[REP5-031](#)], **Outline Landscape and Ecology Management Plan** (Doc Ref. 5.3) and **Flood Resilience Statement** (contained in **Annex 6 of ES Appendix 11.9.6: Flood Risk Assessment** [[REP5-027](#)]) that would all apply to the On-airport WWTW should the Second Change Application be accepted by the ExA.
- 2.2.23 A permit for the operation of the proposed On-airport WWTW would be required under the Environmental Permitting (England and Wales) Regulations 2016. The permit would include the requirements of all other legislation (e.g. Habitats Regulations, Urban Waste Water Treatment Regulations, Water Framework Directive and any other applicable regimes). The permit would set chemical and biological requirements of the discharged effluent to the River Mole to ensure no deterioration in its water quality.
- 2.2.24 The construction of the new outfall to the River Mole from the On-airport WWTW would require a Flood Risk Activity Permit application by the Applicant to the Environment Agency.

### Resulting Car Parking Changes

- 2.2.25 The provision of the On-airport WWTW on part of the existing Self Park North car park (shown on **ES Figure 4.2.1b** [\[REP1-019\]](#) and in **Figure 1**) would cause the permanent loss of approximately 1,162 car parking spaces and the further loss of approximately 250 car parking spaces on a temporary basis as a result of the temporary construction compound areas. The spaces lost on both a temporary and permanent basis would be accommodated within the decked area of the North Terminal Long Stay car park, proposed as part of the Project in the DCO Application under Work No. 32 of the **Draft DCO** (Doc Ref. 2.1). The greater number of parking spaces can be accommodated by increasing the approximate dimensions for this decked area from 350m x 225m and a height of 11m above ground level, as described in **ES Chapter 5: Project Description** (Doc Ref. 5.1) (Table 5.2.2), to 350m x 325m (with no change to the maximum height).
- 2.2.26 The larger decked area, of 350m x 325m and up to 11m in height, can be accommodated within the existing area of Work No. 32 as shown on the **Works Plans** (Doc Ref. 4.5) and the maximum heights shown on the **Parameter Plans** (Doc Ref. 4.7) and which informed the EIA. This is due to the existing area of Work No. 32, as submitted, being larger than the approximate decked area of 350m x 225m described in **ES Chapter 5: Project Description** (Doc Ref. 5.1).
- 2.2.27 Taking into account Project Change 4, the North Terminal Long Stay car park (under Work No. 32) would accommodate the permanently lost spaces from the On-airport WWTW (1,162 spaces) in addition to the relocation of spaces from Car Park X (425 spaces) and the capacity required as a result of the Project (1,100 spaces)<sup>5</sup>. The initial phase of decking would accommodate the 250 spaces temporarily lost to the construction compounds required for the construction of the On-airport WWTW prior to the decking being used for the anticipated airport growth.

### Construction Arrangements

- 2.2.28 The indicative construction sequencing in the DCO Application (**ES Appendix 5.3.3: Indicative Construction Sequencing** [\[REP2-016\]](#)) anticipates that all of the Project's currently proposed wastewater treatment facility works would take place between 2024 and 2029. It is anticipated that construction of the On-airport WWTW would take two years, commencing in 2026 and completing in 2028, and therefore would be within the existing core years of wastewater construction works already anticipated for the Project.

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<sup>5</sup> The relocation of Car Park X (425 spaces) and the capacity required as a result of the Project (1,100 spaces) is unchanged as part of Project Change 4.

2.2.29 Two temporary construction compounds would be required to facilitate the construction of the On-airport WWTW, collectively comprising 7,000m<sup>2</sup> (0.7 hectares) in area. These compounds are shown in **Figure 3** below.

**Figure 3: Temporary Construction Compounds associated to the On-airport WWTW**



2.2.30 The temporary construction compounds would include site cabins, storage areas and areas to accommodate equipment and materials delivery. The construction process would involve the use of machinery / equipment including mobile cranes, piling rig, excavators, concrete mixers and pumps and lorries. Piling is anticipated for the water retaining structures that are part of the On-airport WWTW. The works would involve excavation of up to 5m depth. The height of the temporary structures and equipment on both the construction compounds would be up to 12m (above ground level).

2.2.31 Both construction compounds are located outside the modelled 1% (1 in 100) AEP plus 40% flood extent.

2.2.32 The construction access route to the On-airport WWTW site is anticipated to be from Junction 9 M23 along the M23 Spur Road, Airport Way, Perimeter Road North and to Larkins Road from which the construction compounds would be accessed. This routing forms part of the primary construction access as shown in

Appendix A of the **Outline Construction Traffic Management Plan** [[REP5-020](#)], forming Annex 3 of ES Appendix 5.3.2: Code of Construction Practice, and which is to be confirmed through the approval of Requirement 12 of the **Draft DCO** (Doc Ref. 2.1).

- 2.2.33 Construction would take place during the day and noise from construction activities and construction traffic would be mitigated through the use of Best Practicable Means to reduce noise on site under the **ES Appendix 5.3.2: Code of Construction Practice** [[REP4-007](#)].
- 2.2.34 For the proposed pipeline network, working widths of approximately 5m would be required for construction purposes. The construction of the proposed Pumping Station to the east of the Police Station would require a working area of approximately 22m x 20m during construction with excavation of up to 7m in depth.
- 2.2.35 Appropriate measures would be implemented to maintain access during construction for users of the footway and highway. Where necessary, users of the footway would be temporarily diverted over a short length of approximately 75m around the working area for the construction of the pumping station through the adjacent grassed area.
- 2.2.36 The outfall from the On-airport WWTW to the River Mole would need to pass through a strip of trees on a bund. It is therefore proposed that trenchless techniques would be used to minimise adverse effects on the noise bund and the existing trees (and their root protection areas), by directionally drilling the outfall pipe to the River Mole beneath the noise bund.
- 2.2.37 The outfall structure would include a cascade feature of a series of pools to dissipate hydraulic energy prior to discharge to the River Mole to avoid erosion of the watercourse. The structure would be approximately 11m long (in the direction of the outfall pipe) from the watercourse and 3m wide at the pipe outlet fanning out to approximately 8m wide at its outfall into the watercourse. The soffit of the outfall pipe would be above the 1% (1 in 100) AEP (+20% for climate change) to permit discharge in extreme flood conditions.
- 2.2.38 During the peak month of construction, approximately 225 heavy goods vehicles are expected as a result of the Proposed Change (450 two-way movements over the course of the peak construction month). Either side of the peak month, it is anticipated there would be between 220 and 300 movements a month (10 to 13 movements a day) for a total of seven months. During other months there would be fewer than 80 movements a month (4 movements per day).

2.2.39 Project Change 4 would not involve the addition of any further land to the Order Limits or require a change to the nature of the compulsory acquisition powers sought within the area of the Order Limits in which the additional infrastructure would be constructed. Further detail on this is set out in **Section 2.3** of this report.

### 2.3. Need for the Change

2.3.1 The Applicant and TWUL have been in discussions on the Project since 2019, first informed by the Applicant's hydraulic model of the airport's wastewater system to assess the current performance of the airport's infrastructure and to plan for the provision of wastewater infrastructure for the Project. In discussing the modelling work with TWUL, the Applicant was advised to limit increased flows to Horley STW and instead direct flows to Crawley STW. This approach has been maintained throughout discussions between the Applicant and TWUL and informed the Project's proposed wastewater strategy under the DCO Application, as submitted.

2.3.2 The Applicant's on-airport assessment work was provided to TWUL during the Project's pre-application stage to enable the sewerage undertaker to assess the Project's impact on its own infrastructure as part of its long-term capacity planning taking account of wider projected growth in the local area on its STWs and networks.

2.3.3 The outcome of GAL's on-airport assessment work is reported in the DCO Application in **ES Chapter 11: Water Environment** [[APP-036](#)] and **ES Appendix 11.9.7: Wastewater Assessment** [[APP-150](#)], which did not identify any likely significant environmental effects on-airport in relation to the wastewater impacts of the Project.

2.3.4 TWUL confirmed in 2019 that it would be undertaking its own assessment of the Project's impact on their network and initial survey work on the Gatwick Airport estate was then carried out by TWUL in early 2021. During this time, TWUL submitted information to the ongoing Crawley Borough Local Plan examination in 2020 which did not take account of the projected growth at Gatwick Airport either in the future baseline or with the Project, or the requested diversion of flows from east of the railway to Crawley STW.

2.3.5 The scope of two further studies has been agreed between the parties to understand the Project-specific implications for the network (the existing pipelines) and processing facilities (the Horley and Crawley STWs). These studies are being conducted by TWUL in two stages phases for both the process and network modelling studies: the first phase using existing survey data and

water model outputs of TWUL and the Applicant; and the second phase being a verification of the initial assessment after additional field data is collected.

- 2.3.6 **TWUL's response to ExQ1 WE.1.8** [\[REP3-149\]](#), reported that an initial assessment on the processing facilities had been completed and was provided to GAL on 8<sup>th</sup> April 2024 (the 'Phase 1 Arcadis Network Study'), however this analysis still did not allow for the projected growth of the airport, or of the diversion of flows east of the railway to the Crawley STW.
- 2.3.7 TWUL confirmed in its response **ExQ1 WE.1.8** [\[REP3-149\]](#) that it anticipates completing its detailed assessment of network and flow capacity by early 2025, being after the close of Examination. TWUL was also unable to give the necessary assurances on the timing of the assessments at the **Issue Specific Hearing 7 (Other Environmental Matters)** on 1 May 2024 [EV13-001 to EV13-004].
- 2.3.8 The summary of the latest position regarding the modelling which TWUL is undertaking is set out in row 2.22.5.2 of **Table 2.22** of the **Statement of Common Ground between Gatwick Airport Limited and Thames Water** [\[REP5-064\]](#) submitted into the Examination at Deadline 5. This summarises the position as follows:

*"The Applicant has attempted to engage with Thames Water to understand the effects of the Gatwick project on the Thames network and Sewage Treatment Works process capacity over some years. This engagement and the information that GAL has provided to Thames Water has thus far failed to yield a coherent and holistic assessment from Thames Water and consequently no report from Thames Water on the likely scale and feasibility of any upgrades required which would enable either the Applicant or the Examining Authority to understand this.*

*The Applicant acknowledges that TW have conducted an appropriate Network (pipework) detriment study to show the effects of the project and the headline outputs have been shared with the Applicant – the results of this are outlined below. But TW have yet to produce a study of the processing facilities (treatment plants) that clearly identifies the impacts of the project disaggregated from all other background growth assumptions and distinguishing between the future baseline growth of the airport and the with-project (NRP) case (as has been done in the Network Study). This is urgently required from TW."*

- 2.3.9 The SoCG also sets out, in the absence of any assessment from TWUL, the Applicant's summary of the results of the Phase 1 Arcadis Network Study, as well as some indicative conclusions produced by GAL using TWUL's own process/hydraulic calculation spreadsheet (which was provided as an embedded worksheet within a summary presentation). The SoCG makes clear that the

conclusions in the SoCG are the Applicant's own interpretation of the information provided to it by TWUL, which will need to be discussed further with the party. It is acknowledged that the conclusions will need to be confirmed in due course with reference to the flow and load studies the Applicant has commissioned from TWUL, but which have thus far been delayed from being undertaken by TWUL.

- 2.3.10 It is in this context of ongoing uncertainty and incomplete modelling that GAL is submitting this Second Change Application.
- 2.3.11 In its **Relevant Representations** [\[RR-4518\]](#) and **Written Representations** [\[REP1-103\]](#), TWUL requested a Requirement to be included in the Draft DCO that specifies that no airport growth arising from the Project can be implemented (and wastewater flows discharged) until modelled flows have been agreed with TWUL and any necessary (but currently unknown) network upgrade works have been implemented. Given the ongoing uncertainty regarding the results of the modelling of the impact on the local network caused by the Project, at present it is not clear what these upgrade works would be (to the extent that it is concluded any are required).
- 2.3.12 Whilst the request for a Requirement to be included in the Draft DCO was not repeated in TWUL's Deadline 3 submission in response to **ExQ1 WE.1.8** [\[REP3-149\]](#), it is understood that this remains TWUL's position and so this Second Change Application has been prepared in that context.
- 2.3.13 The Applicant does not consider that it would be appropriate to include such a requirement in the Draft DCO, as stated in its response to **ExQ1 WE.1.8** [\[REP3-105\]](#) and at Issue Specific Hearing 7 [\[REP4-033\]](#) (see paragraphs 4.1.31 and 4.1.34). This is on the basis that:
- a) it is not considered appropriate or proportionate to make the delivery of the Project conditional on the delivery of third party infrastructure which TWUL have a statutory responsibility to deliver as the statutory sewerage undertaker for the area in which the Project is located;
  - b) there is no legal or policy basis for conditioning the delivery of the Project in this way, as GAL is entitled to rely on TWUL to fulfil its statutory responsibility to deliver the infrastructure necessary to accommodate the flows generated by the Project; and
  - c) were the ExA (and ultimately the Secretary of State) to be minded to disagree with the Applicant's position, such a restriction would impose an unacceptable delivery risk to the Project (noting in particular TWUL's current financing issues).



2.3.14 Section 106 of the Water Industry Act 1991 (WIA) provides that an owner or occupier of premises, or the owner of a private sewer, has a right to connect their drains or sewer to a public sewer and to discharge foul or surface water into the sewerage undertaker's pipes. TWUL is the sewerage undertaker for the area in which Gatwick Airport is situated, and as such the Applicant has a right to connect the airport's wastewater system to the public sewer and to discharge foul or surface water into the sewerage undertaker's pipes. This statutory duty applies, notwithstanding the fact of whether any connection would overload TWUL's sewerage network in that area. This position has been upheld in case law, which also established that the planning process is the appropriate mechanism to manage the potential conflict between the absolute right of connection to the network and the problem of new developments generating capacity issues.<sup>6</sup> GAL considers that this Second Change Application is consistent with this established position on the interaction between Section 106 of the WIA and the planning process. GAL is presenting the scenario through this Second Change Application as an 'alternative' option in the DCO, were the Secretary of State to be minded to include the restriction of the nature sought by TWUL. The bespoke on-airport facility would obviate the need for a DCO Requirement that precluded airport growth arising from the Project being implemented (and wastewater flows discharged) until modelled wastewater flows have been agreed by TWUL and any necessary upgrade works to TWUL's local network and processing facilities have been implemented. Instead, this would be the responsibility of GAL as part of the Project with all additional wastewater flows generated by the Project (and indeed all airport flows more generally) being serviced by the proposed on-airport facility. This would mean there would be no adverse impact on the TWUL network facilities, and indeed there would be a beneficial impact as current (and future) airport flows would be removed from TWUL's network and diverted away from the existing processing facilities. It should be noted that the sludge 'cake' could be processed following transportation to a neighbouring Wastewater and Sewage sludge treatment facility (e.g. TWUL's Crawley STW or Southern Water's Goddards Green STW, subject to agreement with the third party) but as this is a dried output it places significantly less demand on the treatment process.

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<sup>6</sup> *Barratt Homes Limited v Welsh Water* [2009] UKSC 13. The Supreme Court held that the section 106 WIA right to connect is an "absolute right" in that "the sewerage undertaker cannot refuse to permit the connection on the ground that the additional discharge into the system will overload it. The burden of dealing with the consequences of this additional discharge falls directly upon the undertaker and the consequent expense is shared by all who pay sewerage charges to the undertaker" (23). The Court accepted this was "manifestly unsatisfactory" in cases where the proposed development would add substantially to the present load on the public sewer (in *Barratt Homes* the scheme was going to add 25% additional load). However, the Court considered that the only way of deferring the right to connect so as to allow the sewage undertaker the opportunity to carry out works to accommodate the increased loading is through the planning process.

- 2.3.15 The Applicant considers this change to be necessary to allow the Secretary of State to be satisfied there is no barrier to the delivery of the Project. The Applicant further considers that, including this change within the DCO would not preclude GAL and TWUL reaching an alternative solution for the delivery of any network or processing capacity increases that are identified to be required in the future.
- 2.4. **Compliance with the Infrastructure Planning (Compulsory Acquisition) Regulations 2010**
- 2.4.1 All of the land required in respect of Project Change 4 falls within the existing Order Limits of the Application as accepted. The Proposed Change would not result in any increase or reduction to the extent of the Order Land or require a change to the nature of the compulsory acquisition powers sought within the same areas of the Order Land.
- 2.4.2 Moreover, the procedure under the Infrastructure Planning (Compulsory Acquisition) Regulations 2010 is not engaged as the Proposed Change does not provide for the acquisition of different or new land. All land relating to Project Change 4 is land owned by the Applicant.
- 2.4.3 Additionally, there would be no changes to the existing land plots nor an introduction of new land plots as a result of Project Change 4.
- 2.5. **Control Documents**
- 2.5.1 Revised versions of the **Works Plans** (Doc Ref. 4.5) and **Parameter Plans** (Doc Ref. 4.7) have been submitted as part of this Second Change Application to provide the technical detail of the change. The revised **Works Plans** and **Parameter Plans** are secured by article 6 (limits of works) of the **Draft DCO** (Doc Ref. 2.1) and would ensure that the Proposed Change is within the location and parameters assessed as part of this Second Change Application.
- 2.5.2 The On-airport WWTW has been provided for in the **Draft DCO** (Doc Ref. 2.1) by new Work No. 44 (on-airport wastewater treatment works facility). The associated network of wastewater infrastructure outside the On-airport WWTW does not need to be specified in a work number because it can be delivered as ancillary or related development under the latter part of Schedule 1 (authorised development), most pertinently paragraph (b).
- 2.5.3 The changes to car parking provision do not require changes to the work descriptions in Schedule 1 of the **Draft DCO** (Doc Ref. 2.1).
- 2.5.4 New Requirement 31(3) has also been added to the **Draft DCO** (Doc Ref. 2.1). This provides that the On-airport WWTW must be constructed and that the

application for the environmental permit necessary to facilitate the operation of the On-airport WWTW must have been submitted prior to the commencement of dual runway operations at the airport, unless otherwise agreed with TWUL. GAL would endeavour to secure the necessary operational environmental permit whilst the On-airport WWTW is being constructed and in advance of the commencement of dual runway operations, so that the On-airport WWTW is operational at the point at which dual runway operations commence.

- 2.5.5 Both this drafting and the new work number have been added in square brackets to reflect that they are an 'alternative' option as described above. If the Secretary of State is not minded to include a restriction of the nature sought by TWUL, the square bracketed drafting can be removed from the Draft DCO. If the Secretary of State retains the square bracketed text in the made DCO but an alternative solution is later agreed between the Applicant and TWUL, the drafting of Requirement 31(3) allows for TWUL to agree that the On-airport WWTW need not be delivered.
- 2.5.6 The environmental appraisal of Project Change 4 has identified a number of mitigation measures that are required, in addition to those that are already proposed and secured through the DCO Application, to mitigate impacts that may arise as a result of the Proposed Change.
- 2.5.7 All of the additional mitigation measures required for the Proposed Change will be secured through updates to existing control documents that the Applicant has already committed to complying with. **Section 3** of this report identifies any revisions to mitigation measures secured in the DCO Application or additional mitigation measures that are required to make the Proposed Change acceptable, and where such measures are secured by the **Draft DCO** (Doc Ref. 2.1).
- 2.5.8 Should this Second Change Application be accepted by the ExA, the Applicant will submit revised versions of the following control documents to incorporate the measures identified throughout this report. The relevant securing mechanism has been included for reference:
- Design Principles contained in **Appendix 1** of the **Design and Access Statement** [X], secured under Requirement 4 of the **Draft DCO** (Doc Ref. 2.1);
  - **Annex 5: Construction Resources and Waste Management Plan** [X] contained in **ES Appendix 5.3.2: Code of Construction Practice**, secured under Requirement 30 of the **Draft DCO** (Doc Ref. 2.1);
  - **ES Appendix 7.8.2: Written Scheme of Investigation for Post-consent Archaeological Investigations and Historic Building Recording – West Sussex** [X], secured under Requirement 14 of the **Draft DCO** (Doc Ref. 2.1);

- **ES Appendix 19.8.1: Public Rights of Way Management Strategy** [[REP2-009](#)], secured under Requirement 22 of the **Draft DCO** (Doc Ref. 2.1).

- 2.5.9 Further detail on the specific changes to each of the above control documents is set out in **Table 3** of this report.
- 2.5.10 A revised **Mitigation Route Map** contained in **ES Appendix 5.2.3** [[REP2-011](#)] will also be submitted should the ExA accept this Second Change Application.

### 3 Environmental Appraisal

- 3.1.1 In accordance with Advice Note Sixteen (Figure 2a, item 4), the Applicant has undertaken a review and appraisal of the Proposed Change against all topics within the Environmental Impact Assessment (EIA) presented in the **ES** [APP-026 to APP-217] to determine if Project Change 4 would result in any new or materially different likely significant effects from those reported in the **ES** submitted as part of the DCO Application and as amended by Project Changes 1 to 3 (for which the re-assessment was provided in the **Change Application Report** [[AS-139](#)]).
- 3.1.2 Details of the environmental assessment are provided in **Table 2**, along with appendices to this report containing further information to support the environmental appraisal (**Appendices A to C**). This includes an outline of the effects of relevance to Project Change 4 in the ES. Whilst the proposed Project Change comprises an additional component to the Project, it is within the Project's Order Limits and only relates to a small area in the context of the airport boundary and the wider Project. This means that not all environmental effects that were assessed as part of the EIA for the whole Project are relevant to this Proposed Change (for example, the assessment of aircraft noise as a result of the Project is plainly not relevant to an On-airport WWTW). In the interests of proportionality, therefore, effects of relevance to the Proposed Change, where applicable, are identified in the second column of Table 2. The third column provides the assessment to determine if the Proposed Change results in any anticipated new or materially different likely significant effects compared to the ES.
- 3.1.3 The environmental appraisal has identified that there would be no new or materially different likely significant effects from those reported in the **ES** [APP-026 to APP-217] for Project Change 4, as explained in **Table 2**.
- 3.1.4 There are several topics which require additional or revised mitigation measures to those that are included in the Application. These are described in **Table 2** in relation to the environmental appraisal and subsequently summarised in **Table 3**, and are all changes to existing control documents.

**Table 2: Environmental Assessment of Project Change 4**

<b>Environmental Topic</b>	<b>Effects of relevance in the ES</b>	<b>Change in significant effects reported in the ES due to Project Change 4</b>
<b>Historic Environment</b>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 7: Historic Environment</b> <a href="#">[APP-032]</a> comprise potential damage to or loss of buried archaeological resource.</p> <p>Other effects reported in <b>ES Chapter 7: Historic Environment</b> <a href="#">[APP-032]</a> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p><b>Environmental Assessment</b></p> <p>Project Change 4 is located outside the area subject to previous archaeological investigation associated with the extant Gatwick North West Zone development. The area subject to previous archaeological fieldwork is presented in <b>Figure 6.3.1</b> of <b>ES Appendix 7.6.1: Historic Environment Baseline Report</b> <a href="#">[APP-101]</a>.</p> <p>Previous archaeological investigations also indicate that Project Change 4 is situated immediately east of an identified area of Bronze Age settlement. As such, there is potential for buried archaeological remains to be present beneath the area where Project Change 4 is proposed. However, any buried archaeological remains would have already been impacted during construction of the existing surface car parks.</p> <p>Notwithstanding the above, if the Second Change Application is accepted, <b>ES Appendix 7.8.2: WSI for post-consent Archaeological Investigations and Historic Building Recording – West Sussex</b> <a href="#">[REP2-019]</a> would be updated to accommodate Project Change 4 to specify that suitable archaeological investigations would be undertaken prior to construction (further detail is provided in <b>Table 3</b> below).</p> <p>Pre-construction archaeological investigations would be used to inform the final layout of Project Change 4, which remains indicative at this stage, to (where</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>necessary) avoid or minimise impacts to potential buried archaeological remains. For example, this would comprise locating elements of Project Change 4 requiring excavation works, such as the Pumping Station (maximum depth of 7m), at a suitable distance from any identified buried archaeological remains.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different likely significant effects when compared to those previously reported in <b>ES Chapter 7: Historic Environment</b> [<a href="#">APP-032</a>], and taking account of <b>Change Application Report</b> [<a href="#">AS-139</a>], as a result of Project Change 4.</p>
<p><b>Landscape, Townscape and Visual Resources</b></p>	<p>Project Change 4 would be situated within the Gatwick Airport Urban Character Area. Overall effects on this Urban Character Area as a result of the Application were previously reported <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> [<a href="#">APP-033</a>] as minor adverse across all assessment years. The main visual receptors for</p>	<p><b>Environmental Assessment</b></p> <p>Representative Viewpoints from which receptors would have views towards the On-airport WWTW have been identified for Project Change 4, which comprise Viewpoints 5, 12, 14, 15, 16, 27, 28 and 29. The location and orientation of the Viewpoints are presented in Figure 1 of <b>Appendix A: Photomontages showing comparison between the Application and Project Change 4</b>.</p> <p>Revised photomontages comparing the existing Application and the largest element of the proposed On-airport WWTW for Viewpoints 5, 12, 14, 15, 16, 27, 28 and 29 have been prepared and are provided in <b>Appendix A: Photomontages showing comparison between the Application and Project Change 4</b> of this report (further detail is provided in <b>Table 3</b> below).</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	<p>Project Change 4 would be Gatwick staff and members of the public using the adjacent North Terminal Long Stay car park; users of the inter-terminal tracked transit system, Perimeter Road North and Sussex Border Path (from the roadside pavement); and Sussex Border Path beside the River Mole.</p> <p>Other effects reported in <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p>The revised photomontages show that the On-airport WWTW would not be visible from the identified viewpoints due to the presence of intervening development and / or existing vegetation, which would screen views. As such, the magnitude of impacts and significance of effects would remain the same as those previously reported within <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a>.</p> <p>In addition, a Zone of Theoretical Visibility (ZTV) for the On-airport WWTW has been determined and is provided in <b>Appendix B: ZTV showing comparison between the Application and Project Change 4</b> of this report. The ZTV demonstrates that the On-airport WWTW would not result in views for any new and different visual receptors from those previously reported in <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a>.</p> <p>Smaller scale ancillary infrastructure associated with Project Change 4 would be visible however, including the new Pumping Station and the proposed concrete outfall. The new Pumping Station is proposed within an area of grassland adjacent to the existing Gatwick Police Station, which would be visible to users of the inter-terminal tracked transit system, Perimeter Road North and Sussex Border Path (from the roadside pavement). The concrete outfall at the River Mole would introduce an element of infrastructure within an urban fringe watercourse and would also be partially visible, filtered through dense riverside vegetation, to walkers using the Sussex Border Path public right of way beside the river. In addition, a preliminary evaluation indicates approximately 161 individual small trees within car park island beds would need to be permanently removed to</p>



Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>accommodate Project Change 4, increasing the scale and mass of infrastructure within this part of Gatwick Airport, compared to the design previously assessed in <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a>.</p> <p>The displaced car parking spaces from the existing Self Park North car park as a result of Project Change 4 would be accommodated within the decked area of the North Terminal Long Stay car park proposed as part of the Application. The area of the North Terminal Long Stay car park would increase to 350m x 325m as a result of Project Change 4 and the maximum height would remain 11m. As such, the design of the North Terminal Long Stay car park would still fall within the maximum parameters previously assessed in <b>Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a>, as demonstrated by the relevant photomontages (Figures 8.9.1 to 8.9.128) presented in <b>Landscape, Townscape and Visual Resources Figures - Parts 1 to 3</b> <a href="#">[REP2-006]</a>, <a href="#">[REP2-007]</a> and <a href="#">[REP2-008]</a>. There would be no change to the level of effect on townscape character as a result of this element of Project Change 4.</p> <p>The new Pumping Station and concrete outfall at the River Mole would lead to some minor additional and localised adverse effects on townscape character due to an introduction of new infrastructure, built form and associated overall increase in scale and mass of development and slight reduction in green infrastructure. However, there would be opportunities, at detailed design stage, to create new hedgerows / tree lines around the WWTW and pumping station elements of Project Change 4 for the purposes of screening and integration.</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p><b>ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan</b> (Doc Ref. 5.3) include the broad concepts for the landscape proposals for the Project. Post-DCO consent, the principles within the <b>ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan</b> (Doc Ref. 5.3) will be expanded upon and finalised during the detailed design of the individual parts of the Project and confirmed through the individual Landscape and Ecology Management Plans for approval under DCO Requirement 8. In addition, the <b>Design and Access Statement Appendix 1 - Design Principles</b> <a href="#">[REP5-031]</a> provides landscape and ecological principles to be considered in the detailed design development secured under DCO Requirements 4, 5 and 6.</p> <p>On balance, the presence of the new Pumping Station and concrete outfall at the River Mole would represent a slight reduction in the quality and character of these specific parts of Gatwick Airport.</p> <p>The On-airport WWTW is proposed within an area of hardstanding and small trees within the existing Self Park North car park. The scale and mass of built form and external infrastructure within this part of the Gatwick Airport would increase, with a concomitant slight decrease in green infrastructure, when compared to the design previously assessed in <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a>. However, the minor impacts as a result of Project Change 4 are not sufficient to materially change the effects on the large, developed character area compared to the Application without Project Change 4. As such, the overall level of effect on the Gatwick Airport Urban</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>Character Area reported in the <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a> would not change as a result of Project Change 4.</p> <p>If this Second Change Application is accepted, the revised <b>ES Appendix 8.10.1: Tree Survey Report and Arboricultural Impact Assessment</b> (Doc Ref. 5.3) would be updated to reflect the additional small trees that would require removal (further detail is provided in <b>Table 3</b> below). <b>ES Appendix 5.3.2: Code of Construction Practice Annex 6 – Outline Arboricultural and Vegetation Method Statement</b> (Doc Ref. 5.3) would also be updated to reflect the loss of small trees post consent during the detailed design stage.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 8: Landscape, Townscape and Visual Resources</b> <a href="#">[APP-033]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<b>Ecology and Nature Conservation</b>	The effects of relevance to Project Change 4 reported in <b>ES Chapter 9: Ecology and Nature Conservation</b> <a href="#">[APP-034]</a> comprise:	<p><b>Environmental Assessment</b></p> <p>As described in <b>Section 2.1</b> of this Second Change Application Report, Project Change 4, including the On-airport WWTW and Pumping Station, would be predominantly located within an area of existing hard standing (i.e. the existing</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	<ul style="list-style-type: none"> <li>▪ effects on habitats and species as a result of construction activity, including habitat severance and loss of ecological connectivity, habitat disturbance (e.g. noise, dust, pollutants) and changes to air quality and water quality.</li> </ul> <p>Other effects reported in <b>ES Chapter 9: Ecology and Nature Conservation</b> [APP-034] have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of the Proposed Change.</p>	<p>Self Park North car park), which is of no ecological value (see Figure 9.6.3 of <b>ES Ecology and Nature Conservation Figures</b> [APP-048]).</p> <p>As set out with respect to Landscape, Townscape and Visual Resources above, 161 small trees would need to be removed as part of the Project. If this Second Change Application is accepted, the loss of these trees would be compensated. This compensation will be described in revised versions of <b>ES Appendix 9.9.2: Biodiversity Net Gain Statement</b> [REP3-047] (further detail is provided in <b>Table 3</b> below) and <b>ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan</b> (Doc Ref. 5.3).</p> <p>The new pipe from the On-airport WWTW to the new outfall at the River Mole routes through areas identified (during the Phase 1 Habitat Survey) as semi-improved grassland, broadleaved plantation woodland, amenity grassland and a small section of species poor hedgerow, as shown in Figure 9.6.3 of <b>ES Ecology and Nature Conservation Figures</b> [APP-048]. However, the new outfall pipe between the On-airport WWTW and the River Mole would be installed using trenchless techniques, which would avoid direct impacts to these habitats during construction. Overall, it is concluded that there is no potential for new or materially different likely significant effects on habitats and species as a result of habitat loss, severance or reduction in ecological connectivity during construction of Project Change 4.</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>With respect to the River Mole, as discussed in the Water Environment section of <b>Table 2</b>, potential impacts on geomorphology and water quality would be avoided via the implementation of embedded mitigation measures in the design of the River Mole outfall, including a cascade feature (concrete structure) at the outfall (to prevent bank and bed erosion), through the conditions of the environmental permit required for the operation of the facility, and existing environmental controls set out in <b>ES Appendix 5.3.2: Code of Construction Practice</b> <a href="#">[REP4-007]</a>. As such, it is considered that there is no potential for new or materially different likely significant effects on habitats species as a result of changes to water quality in the River Mole during construction and operation of Project Change 4.</p> <p>In terms of air quality, as set out in the Air Quality section of <b>Table 2</b> below, although Project Change 4 would result in potential changes to Non-Road Mobile Machinery (NRMM) activity and construction vehicle movements, this would not change the results of the assessment reported in <b>ES Chapter 13: Air Quality</b> <a href="#">[REP3-018]</a>. In addition, existing mitigation measures, such as construction dust mitigation in accordance with IAQM best practice and the management of construction traffic, as described in <b>ES Appendix 5.3.2: Code of Construction Practice - Annex 3 - Outline Construction Traffic Management Plan</b> <a href="#">[APP-085]</a> would avoid air quality impacts on ecological receptors. As such, it is</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>considered that there is no potential for new or materially different likely significant effects on habitats and species as a result of changes to air quality during construction and operation of Project Change 4.</p> <p>With regard to noise, as explained in the Noise and Vibration section of <b>Table 2</b> below, the predicted noise levels for construction of Project Change 4 (in the absence of mitigation) fall well below the Lowest Observable Adverse Effect Level (LOAEL), with negligible effects on NSRs. In addition, operational sound levels associated with Project Change 4 were predicted at the closest NSRs and were lower than representative background sound levels. As such, it is considered that there is no potential for new or materially different likely significant effects on habitats and species as a result of disturbance caused by noise generated during construction and operation of Project Change 4.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different likely significant effects when compared to those previously reported in <b>ES Chapter 9: Ecology and Nature Conservation</b> [<a href="#">APP-034</a>], and taking account of <b>Change Application Report</b> [<a href="#">AS-139</a>], as a result of Project Change 4.</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
<p><b>Geology and Ground Conditions</b></p>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 10: Geology and Ground Conditions</b> [APP-035] comprise potential contamination risk.</p> <p>Other effects reported in <b>ES Chapter 10: Geology and Ground Conditions</b> [APP-035] have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p><b>Environmental Assessment</b></p> <p>Project Change 4 would be located within a Potential Area of Concern (PAOC) in terms of contamination, as it coincides with a historical infilled water body (PAOC ID 35). The location and geographic extent of current and historical PAOCs, including the historical infilled water body (PAOC ID 35) is presented in <b>Figure 10.6.3</b> and <b>Figure 10.6.4</b> of <b>ES Geology and Ground Conditions Figures</b> [APP-056]. In addition, as set out in <b>Section 2.1</b> of this report, construction of Project Change 4 would require piling to be undertaken in a limited number of areas.</p> <p>With regard to potential contamination risk associated with the historical infilled water body (PAOC ID 35) and piling works, this would be avoided or minimised via the implementation of mitigation measures described within Section 10.8 of <b>ES Chapter 10: Geology and Ground Conditions</b> [APP-035], including the implementation of measures set out in <b>ES Appendix 5.3.2: Code of Construction Practice</b> [REP4-007], which contains the requirement for further ground investigations and a piling risk assessment to be undertaken as appropriate.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES</b></p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p><b>Chapter 10: Geology and Ground Conditions</b> <a href="#">[APP-035]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<p><b>Water Environment</b></p>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 11 Water Environment</b> <a href="#">[APP-036]</a> comprise geomorphology and wastewater.</p> <p>Other effects reported in <b>ES Chapter 11 Water Environment</b> <a href="#">[APP-036]</a> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p>Project Change 4 could affect the following aspects of the water environment, which were previously considered in <b>ES Chapter 11: Water Environment</b> <a href="#">[APP-036]</a>:</p> <ul style="list-style-type: none"> <li>▪ <u>Geomorphology</u> – increased risk (without mitigation) of erosion of the bed and banks of the River Mole; and</li> <li>▪ <u>Wastewater</u> – a change to the operational management of wastewater at the airport. The redirection of flows currently draining to TWUL’s network and sewage treatment works to the On-airport WWTW would result in a beneficial (non-significant) effect on the external network capacity.</li> </ul> <p>Other aspects of the water environment, such as groundwater, surface water quality, flood risk and water supply previously considered in <b>ES Chapter 11: Water Environment</b> <a href="#">[APP-036]</a>, would not be affected during construction and operation of Project Change 4 across all assessment years.</p> <p>The velocity of discharge from the On-airport WWTW during the operational phase could give rise to adverse effects on the geomorphology of the River Mole, as a result of bank and bed erosion. Analysis has been undertaken to identify appropriate energy dissipation measures (as described in <b>Section 2</b> of this report). These would comprise embedded mitigation measures, such as a cascade feature (concrete structure) at the outfall to the River Mole, to ensure</p>



Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>that no new or materially different effects on geomorphology would occur during the operation of Project Change 4.</p> <p>The operation of the On-airport WWTW may result in beneficial effects to the existing TWUL wastewater network and sewage treatment works at Horley and Crawley, both are indicated on <b>ES Figure 11.8.2</b> <a href="#">[APP-057]</a>. The disconnection of flows from Gatwick Airport to these networks as a result of on-airport treatment of all Gatwick Airport’s wastewater flows would reduce the pressure on TWUL’s infrastructure, when contrasted with a scenario where the WWTW is not constructed. The degree of potential benefit of the new WWTW to the Thames Water networks and treatment works has not been quantified by the Applicant nor Thames Water.</p> <p>As such, Project Change 4 would not result in any new or materially different adverse environmental effects on wastewater during the operation phase.</p> <p>With regard to construction, works associated with Project Change 4 would be subject to the same controls described in Section 11.8 of <b>ES Chapter 11 Water Environment</b> <a href="#">[APP-036]</a> and set out in <b>ES Appendix 5.3.2: Code of Construction Practice</b> <a href="#">[REP4-007]</a>. These measures would avoid or reduce potential adverse effects on the water environment during construction of Project Change 4.</p> <p><b>Conclusion</b></p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 11 Water Environment</b> [<a href="#">APP-036</a>], and taking account of <b>Change Application Report</b> [<a href="#">AS-139</a>], as a result of Project Change 4.</p>
<p><b>Traffic and Transport</b></p>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 12: Traffic and Transport</b> [<a href="#">REP3-016</a>] comprise the increase in trips associated with construction and operation phase.</p> <p>Other effects reported in <b>ES Chapter 12: Traffic and Transport</b> [<a href="#">REP3-016</a>] have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of the Proposed Change.</p>	<p><b>Environmental Assessment</b></p> <p>Project Change 4 would not result in a material change in the number of trips during the construction or operational phase of the Project. During the peak month of construction related to Project Change 4, around 225 Heavy Goods Vehicles (HGVs) are expected (450 two-way movements per month). This equates to an average of two to three two-way HGV movements an hour. It is anticipated that the construction works for Project Change 4 would take place as part of the wider construction programme for the Project.</p> <p>During the operational phase, there would be up to two lorry movements per week related to Project Change 4, meaning one arrival and one departure.</p> <p>There would be some displacement of car parking during construction and operation of Project Change 4, as set out in detail in <b>Section 2</b> of this report, whereby parking spaces temporarily lost during construction and permanently lost as a result of the works would be accommodated in the decked area of the North Terminal Long Stay car park and within its existing parameters assessed in the ES.</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>Given the location of Project Change 4 is within the proposed North Terminal Long Stay car park, the displacement of car parking is not anticipated to result in any new or materially different effects on traffic distribution or trips on the highway network, when compared to those considered in <b>ES Chapter 12 Traffic and Transport</b> <a href="#">[REP3-016]</a>.</p> <p>As described in Section 12.8 of <b>ES Chapter 12 Traffic and Transport</b> <a href="#">[REP3-016]</a>, surface access improvements for highways and active travel (e.g. walking and cycling) and the surface access commitments reported in <b>ES Appendix 5.4.1: Surface Access Commitments</b> <a href="#">[REP3-028]</a> would be implemented as part of the Application. The surface access improvements and commitments would maintain access for users of the footway and highway during construction and operation of Project Change 4, which is therefore not expected to not result in any new or materially different effects to pedestrian and cyclist amenity or delay.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 12 Traffic and Transport</b> <a href="#">[REP3-016]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<b>Air Quality</b>	The effects of relevance to Project Change 4 reported in <b>ES Chapter 13: Air</b>	<b>Environmental Assessment</b>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	<p><b>Quality</b> <a href="#">[REP3-018]</a> comprise potential operational odour and traffic emissions during the construction and operation phase.</p> <p>Other effects reported in <b>ES Chapter 13: Air Quality</b> <a href="#">[REP3-018]</a> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p>As described in <b>Section 2</b> of this report, Project Change 4 would introduce an additional source of odour (e.g. foul air from the covered gravity thickeners), which was not previously considered in <b>ES Chapter 13: Air Quality</b> <a href="#">[REP3-018]</a>. However, as described in <b>Section 2</b> of this report, various measures would be embedded into the design of Project Change 4 to avoid or reduce the potential effects of odour. For example, the design of Project Change 4 assumes that all open processes (e.g. primary clarifiers, aeration basins, secondary clarifiers, storage tanks, and gravity thickeners) are covered for aerodrome safeguarding and odour prevention. In addition, the foul air from the covered gravity thickeners would be treated at the biotower (being an odour control facility).</p> <p>The measures incorporated into the design of Project Change 4 provide suitable mitigation against the potential effects of odour on human receptors during the operational phase. Therefore, there would be no new or materially different significant odour effects associated with Project Change 4, and no further mitigation would be required.</p> <p>To provide additional assurance with respect to odour, Project Change 4 will be a permitted activity, whereby the Environment Agency will require a review of odour and design to confirm there would be no significant effects prior to the commencement of operation.</p> <p>The additional temporary construction compounds required as part of Project Change 4 would result in potential changes to Non-Road Mobile Machinery</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>(NRMM) activity and construction vehicle movements assessed in <b>ES Chapter 13: Air Quality</b> <a href="#">[REP3-018]</a> and are therefore considered further below.</p> <p>The assessment reported in <b>ES Chapter 13: Air Quality</b> <a href="#">[REP3-018]</a> adopted a conservative approach for construction traffic effects, assessing the worst-case year for construction. As demonstrated in the Traffic and Transport section above, Project Change 4 would not result in a material change in the number of trips during the construction or operational phase of the Project. The primary route to be used for the construction compounds proposed as part of Project Change 4 was included in the modelled construction traffic network assessed and reported in <b>ES Chapter 13: Air Quality</b> <a href="#">[REP3-018]</a>. During the peak month of construction related to Project Change 4, around 225 Heavy Goods Vehicles (HGVs) are expected (450 two-way movements per month). This equates to an average of two to three two-way HGV movements an hour. These predicted construction traffic flows fall below the screening criteria defined in Table 6.2 of the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK) guidance, Land-Use Planning &amp; Development Control: Planning For Air Quality (IAQM and EPUK, 2017), which requires 100 or more HGV movements per day to occur, outside of a designated Air Quality Management Area, in order to screen in a detailed air quality assessment. Taking the above information into account, the additional activity associated with the Project Change 4 would not change the results of the assessment and therefore no further assessment is required.</p> <p>The temporary construction compounds associated with Project Change 4</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>overlap spatially with the NW Airfield Construction compound (an NRMM modelling area) that was previously assessed in the <b>ES Chapter 13 Air Quality [REP3-018]</b> (see <b>Figure 4.1.28 of ES Air Quality Figures – Part 2 [APP-067]</b>). The assessment in <b>ES Chapter 13: Air Quality [REP3-018]</b> made the conservative assumption that each and every NRMM proposed for construction would operate 24 hours a day, 7 days a week and were included in 2024 and 2029 construction scenarios as a worse case assumption (see <b>ES Appendix 13.4.1: Air Quality Assessment Methodology [APP-158]</b>). The NRMM activities and emissions associated with construction of Project Change 4 are therefore implicitly represented in the conservatism built into the NRMM calculations in the assessment and are not expected to change the results of the assessment. Regardless, the NRMM activity associated to Project Change 4 would fall outside of the peak construction activity year (2029). Therefore, the additional NRMM activity associated with Project Change 4 would not change the results of the assessment reported in <b>ES Chapter 13: Air Quality [REP3-018]</b>.</p> <p>In addition, as set out in Section 13.9 of <b>ES Chapter 13: Air Quality [APP-038]</b>, several measures are proposed as part of <b>ES Appendix 5.3.2: Code of Construction Practice [REP4-007]</b>, which would ensure air quality impacts associated with construction of Project Change 4 are minimised as far as practicable. For example, construction dust mitigation in accordance with IAQM best practice and management of construction traffic, as described in <b>ES Appendix 5.3.2: Code of Construction Practice - Annex 3 - Outline Construction Traffic Management Plan [REP5-020]</b>.</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 13 Air Quality</b> [<a href="#">APP-038</a>], and taking account of <b>Change Application Report</b> [<a href="#">AS-139</a>], as a result of Project Change 4.</p>
<p><b>Noise and Vibration</b></p>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 14: Noise and Vibration</b> [<a href="#">APP-039</a>] comprise potential ground noise during the construction and operation phase and vibration associated with piling works.</p> <p>Other effects reported in <b>ES Chapter 14: Noise and Vibration</b> [<a href="#">APP-039</a>] have been reviewed and are not considered to have the potential for new or materially different likely</p>	<p><b>Environmental Assessment</b></p> <p>An updated noise assessment has been undertaken for Project Change 4, which is provided in <b>Appendix C: Project Change 4 Noise Assessment Technical Note</b> of this report. The key findings of <b>Appendix C</b> are summarised below.</p> <p>The following Noise Sensitive Receptors (NSRs) were identified in relation to Project Change 4, it should be noted that two of these NSRs are identified in <b>ES Chapter 14: Noise and Vibration</b> [<a href="#">APP-039</a>] and the remaining three have been identified specifically for this Second Change Application:</p> <ul style="list-style-type: none"> <li>▪ Marles (residential property located approximately 600m to the southwest);</li> <li>▪ Farmfield Cottages (residential property located approximately 400m west);</li> <li>▪ Bear and Bunny Nursery (non-residential property located approximately 150m northwest);</li> <li>▪ Charlwood Park Cottage (residential property located approximately 400m to the north); and</li> <li>▪ Melton (residential property located approximately 500m to the north).</li> </ul>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	<p>significant effects as a result of Project Change 4.</p>	<p>Baseline noise measurements for the Bear and Bunny Nursery (see <b>ES Appendix 14.9.6: Ground Noise Baseline Report</b> <a href="#">[APP-176]</a>) were used for Charlwood Road and Charlwood Park Cottage, whilst baseline noise measurements for Brook Farm (see <b>ES Appendix 14.9.6: Ground Noise Baseline Report</b> <a href="#">[APP-176]</a>) were used for Marles.</p> <p>With regard to construction noise, the assessment was undertaken for the two noisiest phases of the construction programme for Project Change 4, which comprise piling, paving, facility installation and utility diversion works. Noise sources were modelled to capture the worst-case scenario (i.e. noisiest works closest to identified NSRs) and assumed all works will take place during daytime hours.</p> <p>The predicted noise levels in the absence of mitigation fell well below the Lowest Observable Adverse Effect Level (LOAEL), with negligible effects on NSRs. With regard to vibration, piling works associated with Project Change 4 are located sufficiently far from identified NSRs that there is no potential for significant vibration effects.</p> <p>Elements of the On-airport WWTW considered likely to generate operational noise includes four turbo blowers and one positive displacement blower. Operational sound levels from these WWTW elements were predicted at the closest NSRs and were lower than representative background sound levels. Therefore, it was concluded that operational noise associated with Project Change 4 is highly likely to have a low impact, which would not result in a new or</p>



Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>materially different significant effects as compared to the assessment presented in <b>ES Chapter 14: Noise and Vibration</b> <a href="#">[APP-039]</a>.</p> <p><b>Conclusion</b></p> <p>Taking the above information and <b>Appendix C: Project Change 4 Noise Assessment Technical Note</b> into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 14: Noise and Vibration</b> <a href="#">[APP-039]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<p><b>Climate Change</b></p>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 15: Climate Change</b> <a href="#">[APP-040]</a> comprise hotter temperatures, overheating, changing precipitation and water stress.</p> <p>Other effects reported in <b>ES Chapter 15: Climate Change</b> <a href="#">[APP-040]</a> have been reviewed and are not considered to have the</p>	<p><b>Environmental Assessment</b></p> <p>The effects of relevance to Project Change 4 relate to climate change resilience (i.e. the vulnerability of Project Change 4 to climate change), as opposed to the contribution of Project Change 4 towards climate change. Although the effects on Project Change 4 will differ from those experienced by the Project as a whole, they concern the same two issues previously considered in <b>ES Chapter 15: Climate Change</b> <a href="#">[APP-040]</a>, which include: hotter temperatures / overheating and changing precipitation and water stress.</p> <p>If the Second Change Application is accepted by the ExA, further mitigation measures to reduce the risk posed by climate change to Project Change 4 would be developed and included in an updated version of the Design Principles contained in the <b>Design and Access Statement (Volume 5) – Appendix 1</b></p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	potential for new or materially different likely significant effects as a result of Project Change 4.	<p><a href="#">[REP5-031]</a>, secured under DCO Requirements 4 to 6. This would include On-airport WWTW to ensure that the design prevents overheating and drainage measures to account for lower flows (further detail is provided in <b>Table 3</b> below).</p> <p>These embedded mitigation measures would ensure that the design of the On-airport WWTW protect the structures, mechanical and electrical equipment, the system itself, the biological processes and staff required for Project Change 4. This in turn would ensure that the Project Change 4 would be constructed, designed and maintained in such a way as to be resilient to climate change.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 15: Climate Change</b> <a href="#">[APP-040]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<b>Greenhouse Gases</b>	The effects of relevance to Project Change 4 reported in <b>ES Chapter 16: Greenhouse Gases</b> <a href="#">[REP4-005]</a> comprise construction and operational emissions arising from construction	<p><b>Environmental Assessment</b></p> <p>Project Change 4 would not result in different significant environmental effects to those previously reported in <b>ES Chapter 16: Greenhouse Gases</b> <a href="#">[APP-041]</a>. The receptor of all Greenhouse Gas (GHG) emissions remains the global atmosphere.</p> <p>With regard to construction and operational emissions arising from construction and ABAGO, Project Change 4 is relatively small in scale and unlikely to</p>

<b>Environmental Topic</b>	<b>Effects of relevance in the ES</b>	<b>Change in significant effects reported in the ES due to Project Change 4</b>
	<p>and Airport Buildings and Ground Operations (ABAGO) associated with the Application. <b>Chapter 16: Greenhouse Gases</b> reported that these effects were minor adverse, which is not significant.</p> <p>Other effects reported in <b>ES Chapter 16: Greenhouse Gases</b> <a href="#">[REP4-005]</a> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p>materially impact total GHG emissions previously reported in <b>ES Chapter 16: Greenhouse Gases</b> <a href="#">[REP4-005]</a>.</p> <p>Although water treatment processes typically release GHGs direct to atmosphere as a result of biological treatment processes (predominantly CO<sub>2</sub>, and additionally methane for some processes), these GHG emissions associated Project Change 4 are not anticipated to be sufficient to result in new significant environmental effects, whereby the conclusions of <b>Chapter 16: Greenhouse Gases</b> <a href="#">[REP4-005]</a> remain valid.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 16: Greenhouse Gases</b> <a href="#">[REP4-005]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<b>Socio-economic</b>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 17: Socio-Economic</b> <a href="#">[APP-042]</a> comprise:</p>	<p><b>Environmental Assessment</b></p> <p>The construction of the Project Change 4 is anticipated to take place between 2026-2028. This would be within the initial construction period (2024-2029) for the Project overall, and be the same period for the construction of the proposed</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	<ul style="list-style-type: none"> <li>▪ direct employment (construction);</li> <li>▪ direct employment (operational); and</li> <li>▪ disruption to businesses and residents.</li> </ul> <p>Other effects reported in <b>ES Chapter 17: Socio-Economic [APP-042]</b> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p>wastewater works as already assessed. Therefore it is not expected that there would be any material changes to construction employment levels.</p> <p>Once operational, it is expected that Project Change 4 would require up to 5 full-time employees for operation and maintenance of the facility. Given the relatively small number of additional workers that would arise on site, there would be no change to the assessment of employment or labour market impacts, when compared to those previously reported in <b>ES Chapter 17: Socio-Economic [APP-042]</b>.</p> <p>The location of the Project Change 4 comprises an existing parking area, which would result in the temporary loss of 250 car parking spaces and permanent loss of 1,162 car parking spaces. These would be accommodated within the decked area of North Terminal Long Stay car park that is proposed as part of the Project, so there would be no changes in terms of business or resident disruption effects.</p> <p>The conclusions reached with respect to Traffic and Transport and Noise and Vibration reported in <b>Table 2</b> of this report indicate that there is no potential for new or materially different significant effects, when compared to those previously reported in <b>ES Chapter 17: Socio-Economic [APP-042]</b>, and therefore no other changes to business or resident disruption effects are expected as a result of Project Change 4.</p> <p><b>Conclusion</b></p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>Taking the above information into account, there is would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 17: Socio-Economic</b> <a href="#">[APP-042]</a>, and taking account of <b>Change Application Report</b> <a href="#">[AS-139]</a>, as a result of Project Change 4.</p>
<b>Health and Wellbeing</b>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 18: Health and Wellbeing</b> <a href="#">[APP-043]</a> comprise:</p> <ul style="list-style-type: none"> <li>▪ health and wellbeing effects from changes to air quality;</li> <li>▪ health and wellbeing effects from changes in noise exposure;</li> <li>▪ health and wellbeing effects from changes in transport nature and flow rate;</li> <li>▪ health and wellbeing effects from changes in lifestyle factors; and</li> </ul>	<p><b>Environmental Assessment</b></p> <p>In terms of implications for public health, regard has been had to the following elements relevant to the control of odour, bio-aerosols, disease vectors, noise and contamination risk from spills, including those during flood events during the construction and operation of Project Change 4:</p> <ul style="list-style-type: none"> <li>▪ siting of the On-airport WWTW and supporting infrastructure, including the distance from population centres, including in relation to prevailing westerly winds;</li> <li>▪ design elements of the On-airport WWTW, including odour tower, the covering of all processes potentially generating odour;</li> <li>▪ expected benefits inherent to the On-airport WWTW, including improved treatment capacity locally and potential for improved quality of water discharged to the River Mole;</li> <li>▪ construction techniques, including that which maintain the existing earth noise barrier between the On-airport WWTW and River Mole to the west;</li> <li>▪ mitigation measures set out in <b>Section 1</b> of this report (such as the temporary Sussex Border Path diversion);</li> </ul>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
	<ul style="list-style-type: none"> <li>▪ health and wellbeing effects from changes to water quality, flood risk and ground conditions.</li> </ul> <p>Other effects reported in <b>ES Chapter 18: Health and Wellbeing</b> <a href="#">[APP-043]</a> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<ul style="list-style-type: none"> <li>▪ maximum parameters previously assessed in the ES, such as for the decked area of North Terminal Long Stay car park; and</li> <li>▪ management procedures and plans reported in the ES that would also be applied to the proposed works, including linked to appropriately managing any disturbance should historic ground contamination be encountered (as discussed in geology and ground conditions section of Table 2 above).</li> </ul> <p>The health analysis has been informed by the environmental appraisal of other topics, set out in this table (where relevant).</p> <p>The location on the north-west side of the airport is characterised as relatively sparsely populated with scattered dwellings, the closest of which is approximately 400m distant. The nearest vulnerable community is the Bear and Bunny Nursery, approximately 160m to the north, which is considered of high sensitivity in relation to potential health effects. Regard has also been had to the presence of communities in Charlwood and along Horley Road (to the west), along Charlwood Road (to the north) and in Povey Cross and Hookwood (to the north east). The communities located to the south and east of Gatwick Airport are sufficiently distant from the proposed On-airport WWTW that no direct effects on a scale to affect public health would be expected, albeit potential indirect beneficial effects from more treatment capacity being freed up at the Crawley STWs are noted.</p> <p>Consideration has also been given to the GAL workforce who may be in proximity to the On-airport WWTW’s activities. This consideration reflects that the literature indicates that most health-related issues with a WWTW are occupational</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>exposures. Such risks would be mitigated through design, including the enclosed nature of the processes, and occupational health training.</p> <p>During construction and operation of the WWTW, access would be maintained for relevant public rights of way (including footpath 346_2Sy) such that no significant public health effects associated with reduced active travel or physical activity would be expected from the works. Similarly, emergency service access would be maintained during construction and operation.</p> <p>The On-airport WWTW would operate under a permit issued under the Environmental Permitting (England and Wales) Regulations 2016 and would therefore be managed and regulated in relation to use of treatment chemicals, sewage cakes as a hazardous material (which may include pathogens and contaminants) and any harmful or flammable gases produced as a byproduct of organic matter decomposition. The regimes managing such risks appropriately mitigate against the potential for likely significant effects to the public and can be assumed to be effective.</p> <p>The On-airport WWTW design affords the option for future sampling of waste from planes and terminals by Port Health authorities in relation to monitoring</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>communicable disease risk<sup>7</sup>. Facilitating such Port Health monitoring would represent a public health benefit of the proposals.</p> <p>The sensitivity of the population is the same as for the baseline presented in <b>ES Chapter 18: Health and Wellbeing</b> <a href="#">[APP-043]</a>, <b>ES Appendix 18.5.1: Health Baseline Trends, Priorities and Vulnerable Groups</b> <a href="#">[APP-206]</a> and <b>ES Appendix 18.5.2: Health and Wellbeing Baseline Data Tables</b> <a href="#">[APP-207]</a>. As with the original ES assessment, the site-specific sensitivity is determined with regard to the communities closest to the airport, the nine wards discussed in paragraph 18.4.13 of <b>ES Chapter 18: Health and Wellbeing</b> <a href="#">[APP-043]</a>. The assessment is on the basis of the presence of vulnerable population groups being present (e.g. children at the nursery, closer residents or airport workers with existing poor health), whose sensitivity is rated as high. It is noted that more generally, the sensitivity of the general population is considered to be low, which reflects that most people in the surrounding areas live, work or study at a distance from Project Change 4 where any environmental changes (such as changes to noise, emissions, or vehicle traffic) would be dispersed away from the source, reducing exposure associated with the proposed WWTW.</p> <p>For public health, the magnitude of change due to Project Change 4 is considered to be low. The scale of change due to the Project Change 4 is considered to be small. This is the case for issues relating to: air quality; noise exposure; transport</p>

<sup>7</sup> Farkas K, Williams R, Alex-Sanders N, Grimsley JMS, Pântea I, Wade MJ, Woodhall N, Jones DL. Wastewater-based monitoring of SARS-CoV-2 at UK airports and its potential role in international public health surveillance. PLOS Glob Public Health. 2023 Jan 19;3(1):e0001346. doi: 10.1371/journal.pgph.0001346. PMID: 36963000; PMCID: PMC10021541.



Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>nature and flow rate; lifestyle factors; water quality, flood risk and ground conditions; and socio-economic factors. For example, all processes would be covered to mitigate and manage odour from the facility, and foul air would be treated by the biotower, and an odour control unit installed to manage odour emissions. Furthermore, the existing noise bund in the area would be retained and construction noise and construction traffic would be mitigated with the use of best practicable means. The expectation, based on the other assessments within this Second Change Application Report, is of a very low change in exposures experienced by the site-specific and local population, including more vulnerable groups.</p> <p>The construction change is characterised as being short-term, with frequent but temporary small-scale disturbance, emissions and disruption. During operation, very low exposures may be experienced (e.g. in relation to subjective non-threshold effects of odour or noise from plant or vehicles). These would most likely be occasional over the long-term. Both construction and operational effects could predominantly relate to a minor change in quality of life for a small minority of people in the closest communities, with potentially very minor changes in morbidity for very few people, including associated with mental health outcomes related to concern or anxiety. Such changes are not expected to be of a scale to have any healthcare service implications and represent a low magnitude of change.</p> <p>Taking into account the sensitivity and magnitude scores, Project Change 4 would result in a minor adverse (not significant) effect on population health. This</p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>reflects that although the potential impacts of the On-airport WWTW may be of concern to some members of the closest communities, and the scientific literature indicates a clear association between elevated noise, odour<sup>8</sup> and changes to active travel and reduced health outcomes (other illustrative literature sources are set out in Section 18.8 of <b>ES Chapter 18: Health and Wellbeing [APP-043]</b>), the changes would result in a very limited effect on the local health baseline. The commitment to manage and mitigate air quality, odour, noise, traffic, PRow access, water quality, flood risk and ground contamination risks appropriately mitigate the potential impacts of the proposed On-airport WWTW, including to achieve regulatory and health protection standards. Effects would at most have a marginal effect on health inequalities and are not expected to affect the delivery of health policy.</p> <p><b>Conclusion</b></p> <p>Taking the above information into account, there would be no new or materially different significant effects when compared to those previously reported in <b>ES Chapter 18: Health and Wellbeing [APP-043]</b>, and taking account of <b>Change Application Report [AS-139]</b>, as a result of Project Change 4.</p>

<sup>8</sup> Guadalupe-Fernandez V, De Sario M, Vecchi S, Bauleo L, Michelozzi P, Davoli M, Ancona C. Industrial odour pollution and human health: a systematic review and meta-analysis. *Environ Health*. 2021 Sep 22;20(1):108. doi: 10.1186/s12940-021-00774-3. PMID: 34551760; PMCID: PMC8459501.

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
<b>Agricultural Land Use and Recreation</b>	<p>The effects of relevance to Project Change 4 reported in <b>ES Chapter 19: Agricultural Land Use and Recreation [APP-044]</b> comprise temporary diversion or disruption of Public Rights of Way and Sussex Border Path during the construction phase.</p> <p>Other effects reported in <b>ES Chapter 19: Agricultural Land Use and Recreation [APP-044]</b> have been reviewed and are not considered to have the potential for new or materially different likely significant effects as a result of Project Change 4.</p>	<p><b>Environmental Assessment</b></p> <p>The new Pumping Station, which is located immediately to the east of the Police Station, would require the closure of the footway located immediately to the south of the proposed Pumping Station during the construction phase. This footway incorporates a section of the Sussex Border Path (Footpath 346_2Sy). In order to maintain access for footway users, including users of the Sussex Border Path during the construction of the new Pumping Station, a temporary diversion of the footway would be required.</p> <p>If this Second Change Application is accepted by the ExA, <b>ES Appendix 19.8.1: Public Rights of Way Management Strategy [REP2-009]</b> would be updated to include the temporary diversion of this footway (further detail is provided in <b>Table 3</b> below) during the construction of the proposed Pumping Station. The temporary diversion for the Sussex Border Path section (346_2Sy) is proposed to be located within the grassed area adjacent to the construction area to the north of the footway. This proposal would require a short diversion of approximately 75m in distance and would not lead to new or materially different likely significant effects on Public Rights of Way, including the Sussex Border Path. The location of this temporary diversion would be presented in an updated version of Annex 1, Figure A (e) of <b>ES Appendix 19.8.1: Public Rights of Way Management Strategy [REP2-009]</b>.</p> <p><b>Conclusion</b></p>

Environmental Topic	Effects of relevance in the ES	Change in significant effects reported in the ES due to Project Change 4
		<p>Taking the above information into account, there would be no new or materially different likely significant effects when compared to those previously reported in <b>ES Chapter 19: Agricultural Land Use and Recreation</b> [<a href="#">APP-044</a>], and taking account of <b>Change Application Report</b> [<a href="#">AS-139</a>], as a result of Project Change 4.</p>

### 3.2. Other Environmental Topics

3.2.1 The following sections of this Second Change Application Report provide an environmental appraisal of Project Change 4 on other environment topics, which were not included as separate Chapters of the ES. This relates to the environmental topics of waste and major accidents and disasters.

#### Waste

3.2.2 In relation to **ES Appendix 5.3.2 Code of Construction Practice Annex 5 - Construction Resources and Waste Management Plan (CRWMP)** [[REP4-009](#)], Project Change 4 would result in the construction of additional structures. As such, if the Second Change Application is accepted, the Schedule of Buildings/Structures to be constructed in Section 4.2 of the CRWMP would be updated to include the additional structures proposed as part of Project Change 4.

3.2.3 In addition, the types and quantities of construction waste would be set out in the Waste Forecast sheets of the Site Waste Management Plan, to be prepared in line with the CRWMP, as per the other buildings/structures.

3.2.4 **ES Appendix 5.3.1: Buildability Report (Part A)** [[REP2-013](#)] would be updated to include the approach to construction for the proposed On-airport WWTW.

#### Major Accidents and Disasters

3.2.5 In relation to the assessment set out in **ES Appendix 5.3.4: Major Accidents and Disasters** [[APP-089](#)], it is considered that the introduction of an On-airport WWTW to the Project would not have significant implications for the conclusions set out for major accidents and disasters in the ES. This is because the design of the proposed On-airport WWTW, when subject to industry standard operational practices, does not have features which are inherently hazardous to the extent that they could initiate a major accident.

3.2.6 The proposed treatment process is conventional and relatively benign in nature: screening, clarification, aeration, and sludge thickening, with further sludge processing and disposal carried out off site. Covering, containment and the deployment of odour control units at the On-airport WWTW is proposed, which is an approach typical of the water treatment industry where it is considered necessary to mitigate odour emissions.

### 3.3. Schedule of revisions to the Application Documents

3.3.1 **Table 3** identifies those documents that are provided as part of the Second Change Application in order to provide further technical detail (in green); and/or

identifies the revisions that would be made to key Application documents should the Second Change Application be accepted by the ExA (in blue).

**Table 3: Proposed DCO Application Document updates to reflect Project Change 4**

<b>PINS Ref.</b>	<b>DCO Document</b>	<b>Description of update</b>	<b>Revision</b>	<b>Doc Ref.</b>
<a href="#">REP5-005</a>	Draft Development Consent Order	<p>Update to include:</p> <ul style="list-style-type: none"> <li>• A new work number (Work No. 44) to reflect the On-airport WWTW; and</li> <li>• A new Requirement (Requirement 31(3)) to provide that the facility is constructed and that an application for the environmental permit necessary for the facility's operation have been made prior to commencement of dual runway operations, unless otherwise agreed with TWUL.</li> </ul> <p>All updates are in square brackets to reflect that this drafting is being presented by the Applicant as an 'alternative' option in the DCO.</p>	8.0	Doc Ref. 2.1
<a href="#">REP5-007</a>	Explanatory Memorandum to the Draft Development Consent Order	<p>Updated to refer to the new work number (Work No. 44) for the On-airport WWTW and to refer to new Requirement 31(3).</p> <p>All updates are in square brackets to reflect that this drafting is being presented by the Applicant as an 'alternative' option in the DCO.</p>	6.0	Doc Ref. 2.2

<b>PINS Ref.</b>	<b>DCO Document</b>	<b>Description of update</b>	<b>Revision</b>	<b>Doc Ref.</b>
<a href="#">REP5-016</a>	Works Plans – For Approval	Update to the Key Plan and Sheet 1 (990002) to reflect the new works area (Work No. 44) for the On-airport WWTW.	6.0	Doc Ref. 4.5
<a href="#">REP5-018</a>	Parameter Plans – For Approval	Inclusion of a new Parameter Plan (990132) to reflect the maximum dimensions for the new works area (Work No. 44) for the On-airport WWTW and corresponding update to the Key Plan.	4.0	Doc Ref. 4.7
<a href="#">REP1-016</a>	ES Chapter 5: Project Description	Updates to: <ul style="list-style-type: none"> <li>▪ Section 5.2 to reflect the works proposed under Project Change 4, including updates to Table 5.2.2 on the dimensions of the decked area of the North Terminal Long Stay car park.</li> <li>▪ Table 5.3.1 Indicative Sequencing of Construction Works to include the timing of the On-airport WWTW.</li> <li>▪ Section 5.3 to describe the construction works for the On-airport WWTW and the associated temporary construction compounds.</li> </ul>	4.0	Doc Ref. 5.1
<a href="#">AS-135</a>	ES Project Description Figures	Updates to: <ul style="list-style-type: none"> <li>▪ Figure 5.2.1a (Proposed Airport Works) – update to include the On-airport WWTW.</li> <li>▪ Figure 5.2.1e (Proposed Surface Water and Foul Water Improvements) – update to include</li> </ul>	4.0	Doc Ref. 5.2



PINS Ref.	DCO Document	Description of update	Revision	Doc Ref.
		<p>the On-airport WWTW, Pumping Station next to the existing police station and outfall to the River Mole and to omit the proposed Pumping Station on the eastern side of the Brighton-London mainline railway.</p> <ul style="list-style-type: none"> <li>Figure 5.2.1f (Proposed Temporary Construction Compounds) – update to include the temporary construction compounds associated with Project Change 4.</li> <li>Figure 5.2.1h (Existing Facilities to be Demolished or Removed) – update to show the additional extent of the North Terminal Long Stay car park to be removed.</li> </ul>		
<a href="#">AS-137</a>	Project Description Signposting Document	To reflect updates to the Draft DCO, EM, ES Chapter 5: Project Description and the ES Project Description Figures (described above)	3.0	Doc Ref. 8.7
<a href="#">REP2-006</a> , <a href="#">REP2-007</a> , <a href="#">REP2-008</a>	ES Landscape, Townscape and Visual Resources Figures (Parts 1 to 3) – Figure 8.4.1, Figure 8.4.2, Figure 8.4.4, Figures 8.9.17 to 8.9.20, Figures 8.9.45 to 8.9.48, Figures	<ul style="list-style-type: none"> <li>Update the proposed ZTV for Project Change 4. The comparison of the ZTV for the Application and with Project Change 1 is provided in Figure 1 of <b>Appendix B</b> to this report.</li> <li>Update key representative photomontages for Project Change 4.</li> </ul>	2.0	To be provided if Project Change 4 is accepted by the ExA.

PINS Ref.	DCO Document	Description of update	Revision	Doc Ref.
	8.9.51 to 8.9.60 and Figures 8.9.105 to 8.9.116.	<ul style="list-style-type: none"> <li>Key photomontages showing the comparison between the Application and with Project Change 4 are provided in <b>Appendix A</b> of this report.</li> </ul>		
<a href="#">REP2-013</a>	ES Appendix 5.3.1: Buildability Report (Part A)	<p>Updates to include:</p> <ul style="list-style-type: none"> <li>Section 3.13 to include the WWTW as a key component of the Project.</li> <li>Additional text in section 3 to include a brief description of the WWTW works.</li> <li>Section 4.2.1 / Table 1 to include the sequencing / dates for the WWTW.</li> <li>Section 4.3 to include a new sub-section for the WWTW.</li> <li>Section 8.10.12 to include the increase in the deck size for North Terminal Long Stay car park (based on the loss of existing spaces due to the proposed WWTW and temporary compounds).</li> <li>Section 8.13.17 to include coordination of the route of the new discharge main with the details / location of the assets in the proposed WWTW (the proposed pipeline route goes through the proposed WWTW site).</li> </ul>	2.0	To be provided if Project Change 4 is accepted by the ExA.

PINS Ref.	DCO Document	Description of update	Revision	Doc Ref.
		<ul style="list-style-type: none"> <li>▪ Sections 8.13.25 to 28 to reflect the scope of works for the proposed WWTW for the North Terminal</li> <li>▪ Section 8.13.29 to 33</li> <li>▪ Section 8.13.38 to 41 to reflect the scope of works for the proposed WWTW.</li> <li>▪ Glossary update to include WWTW</li> </ul>		
<a href="#">REP4-009</a>	ES Appendix 5.3.2 Code of Construction Practice – Annex 5: Construction Resources and Waste Management Plan	Update Section 4.2: Schedule of Buildings/Structures to be constructed as part of the Project to include the On-airport WWTW.	2.0	To be provided if Project Change 4 is accepted by the ExA.
<a href="#">REP2-019</a>	ES Appendix 7.8.2 Written Scheme of Investigation for Post Consent Archaeological Investigations and Historic Building Recording - West Sussex	Updates to include: <ul style="list-style-type: none"> <li>▪ A new subsection would be added to Section 5 (Aims and Objectives) to set out the specific aims associated with a programme of archaeological investigation at the proposed WWTW site.</li> <li>▪ A new subsection would be added to Section 6 The further archaeological investigations and historic building recording to provide information regarding the nature of the</li> </ul>	3.0	To be provided if Project Change 4 is accepted by the ExA.

PINS Ref.	DCO Document	Description of update	Revision	Doc Ref.
		<p>proposed programme of archaeological investigation at the proposed WWTW site.</p> <ul style="list-style-type: none"> <li>▪ A new subsection would be added to Section 7 Methodology to describe any part of the proposed programme of archaeological investigation at the proposed WWTW site not already addressed within the current text.</li> <li>▪ A new figure would be prepared showing the location of the proposed programme of archaeological investigation at the proposed WWTW site.</li> </ul>		
<a href="#">REP2-011</a>	ES Appendix 5.2.3: Mitigation Route Map	Update to reflect mitigation measures that would be adopted as part of Project Change 4 upon which the assessment relies to avoid or reduce significant adverse effects, and updates to control documents as described in this table.	2.0	To be provided if Project Change 4 is accepted by the ExA.
<a href="#">REP2-016</a>	ES Appendix 5.3.3: Indicative Construction Sequencing	Update to include the anticipated construction timings for the On-airport WWTW.	2.0	To be provided if Project Change 4 is accepted by the ExA.
<a href="#">REP3-037</a> <a href="#">REP3-039</a>	ES Appendix 8.10.1: Tree Survey Report and Arboricultural	Updated to account for loss of small trees associated with construction of Project Change 4, including:	2.0	To be provided if Project Change 4 is

PINS Ref.	DCO Document	Description of update	Revision	Doc Ref.
	Impact Assessment Part 1 and Part 2	<ul style="list-style-type: none"> <li>Section 4: Survey Findings – to be updated to reflect presence of additional trees within the Project site;</li> <li>Section 6: Arboricultural Impact Assessment - to be updated to consider the loss of trees associated with construction of Project Change 4; and</li> <li>Appendix I: Airport Preliminary Tree Removal Plans – to be updated to include the removal of trees associated with construction of Project Change 4.</li> </ul>		accepted by the ExA.
<a href="#">REP3 -046</a>	ES Appendix 9.9.2: Biodiversity Net Gain Statement	To be updated to account for loss of small trees associated with construction of Project Change 4.	3.0	To be provided if Project Change 4 is accepted by the ExA.
<a href="#">REP5-031</a>	Design and Access Statement (Volume 5) – Appendix 1 – Design Principles	Updates for climate resilience to include new site-specific design principle(s) regarding the On-airport WWTW to include: 1) measures for overheating (e.g. cooling, ventilation and shading relevant for the different systems), and 2) drainage measures (e.g. flow system design to account for potential lower flows).	4.0	To be provided if Project Change 4 is accepted by the ExA.

<b>PINS Ref.</b>	<b>DCO Document</b>	<b>Description of update</b>	<b>Revision</b>	<b>Doc Ref.</b>
<a href="#">REP2-009</a>	ES Appendix 19.8.1: Public Rights of Way Management Strategy	Update to Table 4.1.1 to include the additional diversion route for the Sussex Border Path section (346_2Sy) and update to Annex 1: Figure A (e) to show the location of the proposed temporary diversion.	2.0	To be provided if Project Change 4 is accepted by the ExA.
<a href="#">REP3-062</a>	List of Other Consents and Licences	Update to include the following: <ul style="list-style-type: none"> <li>• A permit for the operation of the proposed On-airport WWTW would be required under the Environmental Permitting (England and Wales) Regulations 2016; and</li> <li>• A Flood Risk Activity Permit would be required for the construction of the outfall to the River Mole from the On-airport WWTW.</li> </ul>	2.0	To be provided if Project Change 4 is accepted by the ExA.

## 4 Non-Statutory Consultation

### 4.1. Consultation Activities

4.1.1 The Applicant has carried out non-statutory consultation on the Proposed Change to ensure that all persons who may be affected by the Proposed Change were made aware of the change and had the opportunity to provide comments in advance of this Second Change Application.

4.1.2 Owing to the limited geographical nature of the Proposed Change in the context of the wider Project, the consultation was primarily aimed at prescribed consultees, relevant local authorities and landowners/those with an interest in the land related to the Proposed Change under sections 42(a) to (d) of the Planning Act 2008. The Applicant also voluntarily consulted members of the public.

4.1.3 The consultation was carried out between 14 May and 11 June 2024, totalling a period of 28 days.

4.1.4 The consultation activities comprised:

- The Applicant held two briefing sessions on the Proposed Change with Parish / Town Councils.
- The Applicant wrote the Joint Local Authorities before and during the consultation period offering a briefing session, however the offer was declined by the JLAs.
- A letter and consultation letter was sent to all prescribed consultees, relevant local authorities and landowners/those with an interest in the land related to the Proposed Change.
- A consultation leaflet was sent directly to residents and businesses in close proximity to the land subject to the Proposed Change.
- The consultation was advertised through local newspapers and through a series of press releases.
- Five site notices were erected and maintained throughout the consultation period.
- The consultation material was published on Gatwick Airport's Project website.

4.1.5 Further detail on the consultation activities and copy of the consultation material is contained in the **Consultation Report Second Addendum** (Doc Ref. 10.48).

### 4.2. Consultation Responses

4.2.1 A total of 51 responses were received to the consultation.

- 4.2.2 A summary of the issues raised in response to consultation is provided below. A detailed response to each issue is provided in the **Consultation Report Second Addendum** (Doc Ref. 10.48).
- Comments expressing support for the Proposed Change and specifically the proposed On-airport WWTW.
  - Comments requesting further detail on the quantity of wastewater flows expected from the airport into the On-airport WWTW.
  - Comments requesting further detail on the additional quantity of water to be discharged into the River Mole, its quality and how the quality of discharges will be monitored.
  - Comments querying the relationship of the Proposed Change to the Thames Barrier.
  - Comments querying what measures will be put in place to ensure that the On-airport WWTW does not impact current flood risk levels.
- 4.2.3 The Applicant has reviewed and considered the consultation feedback, and welcomes the support that has been received for the Proposed Change. Where further information has been requested, this has been provided within this report and the accompanying **Consultation Report Second Addendum** (Doc Ref. 10.48).
- 4.2.4 The **Consultation Report Second Addendum** (Doc Ref. 10.48) contains a more detailed description of the consultation feedback and the Applicant's response. Copies of the consultation feedback are also contained in **Appendix K** of the Addendum.



## 5 References

Department for Communities and Local Government (March 2015). Planning Act 2008: Guidance for the examination of applications for development consent.

Planning Act 2008.

Planning Inspectorate (March 2023). Advice Note Sixteen: Requests to change applications after they have been accepted for examination (Version 3).

The Infrastructure Planning (Compulsory Acquisition) Regulations 2010.

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

IAQM and EPUK (2017) Land-Use Planning & Development Control: Planning For Air Quality.

## Glossary

<b>Term</b>	<b>Description</b>
CoCP	Code of Construction Practice
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
GAL	Gatwick Airport Limited
GHG	Greenhouse Gas
HGV	Heavy Goods Vehicle
NRP	Northern Runway Project
NRMM	Non-Road Mobile Machinery
NSR	Noise Sensitive Receptor
oLEMP	Outline Landscape and Ecology Management Plan
WSI	Written Scheme of Investigation
ZTV	Zone of Theoretical Visibility