

Statutory Consultation 2022

# **Draft Green Controlled Growth Proposals**



## OVERVIEW

### Green Controlled Growth

Airports do much that is good. They are gateways to the world for business and leisure. They are very important economic hubs. They can generate tens of thousands of jobs.

However, airports can also generate negative environmental effects that, unless controlled and managed, can impact on surrounding communities.

Green Controlled Growth (or GCG) is a unique framework to make sure that environmental limits are observed as the airport grows. Crucially, the environmental limits put forward are not airy aspirations – they would be **legally binding**, overseen by an independent body.

Green Controlled Growth will be part of our Development Consent Order (DCO) application.

### How would Green Controlled Growth work?

Green Controlled Growth would place controls on four key categories of environmental impact: air quality, greenhouse gas emissions, aircraft noise, and surface access mode share. We have selected these as the areas where impacts will continue to change over time, as passenger numbers grow and technology improves.

We are proposing to measure these impacts as follows:

**Aircraft noise** – by the total area of land experiencing noise above a certain threshold

**Air quality** – by the concentrations in the air of the three pollutants most relevant to human health

**Greenhouse gas emissions** – by emissions from airport operations and surface access

**Surface access** – by % of passengers and staff travelling by public transport and sustainable modes

As part of this consultation, we've proposed limits for each of these four categories and set out how the Green Controlled Growth framework would work to make sure these limits are not breached.

Green Controlled Growth would ensure that growth **only takes place within strict environmental limits**. The airport operator would be required to periodically monitor and report on the extent of impacts associated with the airport in the four limit areas.

If monitoring were to suggest at any point that these limits were in danger of being breached, then plans must set out how that breach would be avoided. If environmental limits were ultimately breached, further growth would be stopped, and mitigation required.

### Independent scrutiny

We will not be marking our own homework – there will be a new, independent, body called the Environmental Scrutiny Group (ESG) to oversee Green Controlled Growth and make sure that it works in practice. The ESG is proposed to include representatives from Luton Borough Council and neighbouring councils and supported by four technical panels, one for each of the Green Controlled Growth impacts.

The document that follows provides more detail about our proposals for Green Controlled Growth. It covers the proposed limits themselves as well as the process and governance for enforcing the limits.

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## ABBREVIATIONS

Term	Definition
ACI	Airports Council International
ACL	Airport Co-ordination Limited
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
ATF	Airport Transport Forum
ATM	Air Transport Movement
CAA	Civil Aviation Authority
CCC	Committee for Climate Change
CCD	Climb Cruise Descent
CO2e	Carbon Dioxide equivalent
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
DCO	Development Consent Order
EIA	Environmental Impact Assessment

<b>Term</b>	<b>Definition</b>
ES	Environmental Statement
ESG	Environmental Scrutiny Group
GCG	Green Controlled Growth
GHG	Greenhouse Gas
GWP	Global Warming Potential
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
LCC	Luton Airport Co-ordination Committee
LLACC	London Luton Airport Consultative Committee
LAeq,T	Level of A-weighted, Equivalent Continuous Sound over Time
LBC	Luton Borough Council
LLAOL	London Luton Airport Operations Limited
LTN	London Luton Airport
LTO	Landing Take-Off
mppa	million passengers per annum
NEDG	Noise Envelope Design Group
NSIP	Nationally Significant Infrastructure Project
PA2008	Planning Act 2008
PEIR	Preliminary Environmental Information Report
SAETS	Getting to and from the airport – emerging Transport Strategy
TA	Transport Assessment
UK ETS	United Kingdom Emissions Trading Scheme
UN SDGs	United Nations Sustainable Development Goals
WWACG	Worldwide Airport Coordinators Group
µg/m <sup>3</sup>	micrograms per cubic metre (of air)

# 1 INTRODUCTION

## 1.1 Our Proposal

1.1.1 This document has been prepared to support the public consultation on the proposed expansion of London Luton Airport. The Proposed Development builds on the current operational airport with the construction of a new passenger terminal and additional aircraft stands to the north east of the runway. This will take the overall passenger capacity from 18 mppa to 32 mppa.

1.1.2 In addition to the above and to support the initial increase in demand, the existing infrastructure and supporting facilities will be improved in line with the phased growth in capacity of the airport. Key elements of the proposed development include:

- a. Extension and remodelling of the existing passenger terminal (Terminal 1) to increase the capacity;
- b. New passenger terminal building and boarding piers (Terminal 2);
- c. Earthworks to create an extension to the current airfield platform, material for these earthworks would be generated on site;
- d. Airside facilities including new taxiways and aprons, together with relocated engine run-up bay and fire training facility;
- e. Landside facilities, including buildings which support the operational, energy and servicing needs of the airport;
- f. Enhancement of the existing surface access network, including a new dual carriageway road accessed via a new junction on the existing New Airport Way (A1081) to the new passenger terminal along with the provision of forecourt and car parking facilities;
- g. Extension of the Luton Direct Air to Rail Transit (DART) with a station serving the new passenger terminal;
- h. Landscape and ecological improvements, including the replacement of existing open space; and
- i. Further infrastructure enhancements and initiatives to support our goal of a net zero airport operation by 2040, with interventions to support carbon neutrality being delivered sooner including facilities for greater public transport usage, improved thermal efficiency, electric vehicle charging, on-site energy generation and storage, new aircraft fuel pipeline connection and storage facilities and sustainable surface and foul water management installations.

1.1.3 Between October and December 2019, we held a statutory consultation where we sought your views on our expansion proposals. Since then we have further developed our proposals in response to your feedback and to address wider changes. A summary of the feedback we received and how we are responding to it is also published in our Consultation Feedback Report as part of this consultation.



- 1.1.4 The changes to our expansion proposals that we have identified and are considering have been driven by a number of factors. These include:
- a. Responses to our 2019 statutory consultation;
  - b. Our drive to put sustainability at the heart of our proposals as part of our ambition to become the UK's most sustainable and socially conscious Airport Owner;
  - c. The Covid-19 pandemic;
  - d. The UK's withdrawal from the European Union and the potential impact on economic growth and passenger demand; and
  - e. Regional changes such as the acceleration of the East West Rail scheme between Oxford and Cambridge.
- 1.1.5 The key changes to the Proposed Development since the 2019 statutory consultation are:
- a. Inclusion of Airport Access Road (formerly called Century Park Access Road) and improvements to the Airport Way/ Percival Way junction;
  - b. New sustainability design measures including making Terminal 2 a net zero building, solar and geothermal energy, green walls and rainwater harvesting;
  - c. Changing the layout of Wigmore Valley Park to preserve more trees, biodiversity and heritage assets;
  - d. Reduction in total car park footprint;
  - e. Reduction in the size of the airfield platform and landfill remediation works, along with an updated remediation strategy;
  - f. Improvements to the proposed development including reconfigured taxiways, reducing the number of stands within the landfill boundary; reducing the size of the engine run up bay and a new access road to the Fire Training Ground;
  - g. Updated compensation proposals;
  - h. Updated phasing of development including later construction start and end dates; and
  - i. A new approach to managing the potential environmental effects of future expansion called Green Controlled Growth.
- 1.1.6 On 1 December 2021, the local planning authority (Luton Borough Council) resolved to grant permission for the current airport operator (LLAOL) to grow the airport up to 19 mppa, from its previous permitted cap of 18 mppa. Since then, the Secretary of State for Levelling up, Housing and Communities has issued a "holding direction" which prevents Luton Borough Council from issuing a final decision while the Secretary of State considers whether he should call-in and decide the 19 mppa planning application. All of the assessment work to date has been undertaken using a 'baseline' of 18 mppa. Nonetheless, in anticipation of LLAOL's 19 mppa planning application, the preliminary environmental assessments included sensitivity analysis of the implications of

the permitted cap increasing. As a result, the consultation assessments are considered to be sufficiently representative of the likely significant effects of expansion, whether the baseline is 18 mppa or 19 mppa. Where the change of the baseline does affect an assessment topic, in most cases it means that the 'core' assessments (using an 18 mppa baseline) report a marginally greater change than would be the case with a 19 mppa baseline. Further consideration will be given to updating the assessments after the consultation, alongside any other revisions made as a result of consultation feedback.

## 1.2 Overview of Green Controlled Growth

1.2.1 Green Controlled Growth (GCG) is a proposal that has been developed since the 2019 statutory consultation took place to address the feedback received on environmental concerns, and the strong desire indicated by stakeholders for the airport to be more ambitious in its approach to reducing and mitigating the environmental effects of expansion. The definition of GCG:

**We are proposing a binding framework for managing the growth and operation of the airport through the coming decades within definitive environmental limits.**

**We call this framework “Green Controlled Growth” (GCG).**

1.2.2 This document has been published as part of this statutory consultation to explain the proposed approach to GCG and how it specifically addresses the way in which the environmental effects of an expanded airport would be managed.

1.2.3 Our GCG Proposals are still under development and your feedback on this document will help us refine them ahead of submitting our application for development consent. A final version of GCG will be submitted as part of this application.

## 1.3 London Luton Airport Ownership Structure and Responsibility

1.3.1 The ownership and operational structure of the airport differs from many other airports. The airport is wholly owned by Luton Rising (a trading name of London Luton Airport Limited). In turn, Luton Rising is wholly owned by Luton Borough Council (LBC), hence the airport is the only major UK airport to be wholly publicly owned.

1.3.2 Day-to-day operations at the airport are currently controlled and managed solely by London Luton Airport Operations Limited (LLAOL), under a concession agreement with Luton Rising. This ownership structure is shown in Figure 1.1.

Figure 1.1: Ownership and management structure of the airport



1.3.3 As the airport's owner, we have a significant role to play in shaping the airport's long-term future. Our GCG Proposals form an important part of our proposal for expansion.

1.3.4 As set out in Section 3 of this document, our GCG Proposals would place additional responsibilities upon the Airport Operator, and so as part of the development of these proposals, we are working closely with LLAOL to understand how both parties can build upon the work undertaken to date to increase the sustainability of operations at the airport.

## 1.4 Contents

1.4.1 The remainder of this **Draft Green Controlled Growth Proposals** document is structured as follows:

- a. Section 2 sets out why we are developing our GCG Proposals;
- b. Section 3 outlines our proposed approach to GCG;
- c. Section 4 proposes how we might define the GCG Limits, and provides indicative ranges for the value of each Limit; and
- d. Section 5 summarises the document and outlines the next steps for the development of our GCG Proposals between statutory consultation and the submission of our application for development consent.

## 2 WHY ARE WE DEVELOPING GCG PROPOSALS?

### 2.1 Our Strategic Environmental Ambitions

- 2.1.1 The airport is an important international transport hub that connects people and businesses across Europe and beyond, and therefore provides a range of socio-economic benefits to Luton, the Three Counties (Bedfordshire, Buckinghamshire and Hertfordshire), as well as the wider region and nationally. While the airport delivers significant socio-economic benefits, we also recognise that the operation of the airport can result in environmental effects that impact local communities and the wider planet.
- 2.1.2 These have long been a matter of great importance to us, and we have sought to reduce the impact of existing operations over a number of years, by working with LLAOL across many areas including waste and recycling, energy use<sup>1</sup> and through certification with the Airport Carbon Accreditation Programme<sup>2</sup>.
- 2.1.3 Expanding the airport to make best use of the existing runway offers clear employment and economic benefits but we must only do so in a sustainable way that safeguards the needs of future generations. We also recognise that expansion of the airport has the potential to increase the airport's environmental effects, notwithstanding that we will do our utmost to avoid or mitigate those effects.
- 2.1.4 Our ambition therefore is to be an industry leader in sustainable aviation, balancing our environmental, social and economic effects to enable growth and resilience at the airport, as set out initially in our Vision for Sustainable Growth 2020-2050<sup>3</sup>, published in December 2017, and our subsequent Sustainability Strategy<sup>4</sup>, which we updated and published in January 2022.
- 2.1.5 Our Sustainability Strategy draws upon the United Nations' 17 Sustainable Development Goals and reflects our commitment to securing positive environmental outcomes from the airport's operation and expansion. The fundamental principles of the Sustainability Strategy, which are reflected where appropriate in the DCO proposals (as detailed in our Draft **Sustainability Statement**), are for the airport to:
- a. Protect and enhance the natural environment;
  - b. Deliver climate resilience and business continuity;
  - c. Lead the transition to carbon net zero;
  - d. Become a national hub for green technology, finance and innovation; and
  - e. Be a place to thrive.

Figure 2.1: UN Sustainable Development Goals<sup>5</sup>

- 2.1.6 While we have been progressing with the development of our proposals for expansion, there has been an increased focus globally on environmental considerations, and climate change in particular. This is a concern shared by LBC – the owner of Luton Rising – which has declared a Climate Emergency in Luton and set an ambitious target for Luton to be carbon neutral and climate resilient by 2040<sup>6</sup>, ahead of the Government’s target date by a decade.
- 2.1.7 Government policy surrounding the decarbonisation of the aviation sector has also continued to evolve since the 2019 statutory consultation, including the establishment of the Jet Zero Council<sup>7</sup>, the launch of the UK Emissions Trading Scheme (UK ETS)<sup>8</sup> and the publication of Decarbonising Transport: A Better, Greener Britain<sup>9</sup>, which reflects the Climate Change Committee’s recommendation for international aviation and shipping emissions to be included within the Sixth Carbon Budget<sup>10</sup>. The Government is also developing a specific net zero strategy for the aviation sector – Jet Zero – with a recent consultation in the summer of 2021<sup>11</sup>.
- 2.1.8 Our GCG Proposals are one way in which we are responding to these issues by strengthening our proposals for limiting the environmental effects of the airport, including the greenhouse gas (GHG) emissions associated with expansion of the airport.

## 2.2 Building on Environmental Impact Assessment and associated Mitigation

- 2.2.1 As with any significant development, we are reviewing the potential environmental effects of the expansion of the airport through a comprehensive Environmental Impact Assessment (EIA), which is a statutory requirement.
- 2.2.2 However, we intend to go beyond this. In addition to the embedded and additional mitigation which will be assessed through the EIA and secured via the Development Consent Order (DCO), we are proposing an additional layer of assurance for the airport's environmental effects in the form of our GCG Proposals.
- 2.2.3 This statutory consultation on the proposals includes a **Preliminary Environmental Information Report (PEIR)** that presents the preliminary findings of the EIA and describes the likely environmental effects of the Proposed Development.
- 2.2.4 The conclusions of the EIA, taking account of the feedback received through consultation and any further development of the scheme proposals, will ultimately be reported in the Environmental Statement (ES), which will be submitted as part of the application for development consent.
- 2.2.5 The ES will identify the full range of likely significant effects resulting from the Proposed Development and will highlight where additional mitigation is being proposed to reduce the magnitude of those effects.
- 2.2.6 We are developing our proposals with the expected environmental effects of the expansion of the airport firmly in mind. We are seeking to 'design in' sustainability and environmental excellence as fundamental principles of the Proposed Development, and decisions about all aspects of the Proposed Development's design are being taken with a view to managing and, where possible, avoiding or mitigating negative environmental effects.
- 2.2.7 A design decision to reduce or avoid an environmental effect is known as 'embedded mitigation'. Embedded mitigation represents the first means by which we aim, through our infrastructure proposals, to minimise (or avoid entirely) negative environmental effects.
- 2.2.8 An example of embedded mitigation in our proposals is the siting of particular elements of airport infrastructure so as to avoid areas of habitat. Key elements of embedded mitigation will be explained in the ES which will accompany our application for development consent.
- 2.2.9 Over and above this, where an impact cannot be 'designed out' through embedding mitigation in the scheme's design, we will propose specific mitigation measures as necessary to make the environmental effects of the scheme acceptable.

## 2.3 What Makes Our Environmental Approach Different

- 2.3.1 Any EIA is to some extent reliant on forecasting external changes which are outside of the Applicant's control. As an example, neither the Airport Owner or

the Airport Operator can directly control the proportion of the UK vehicle fleet accounted for by electrically powered vehicles, which bears on the environmental effects of expansion. Nor does the Airport Operator have direct control over which aircraft are used by airlines to operate routes.

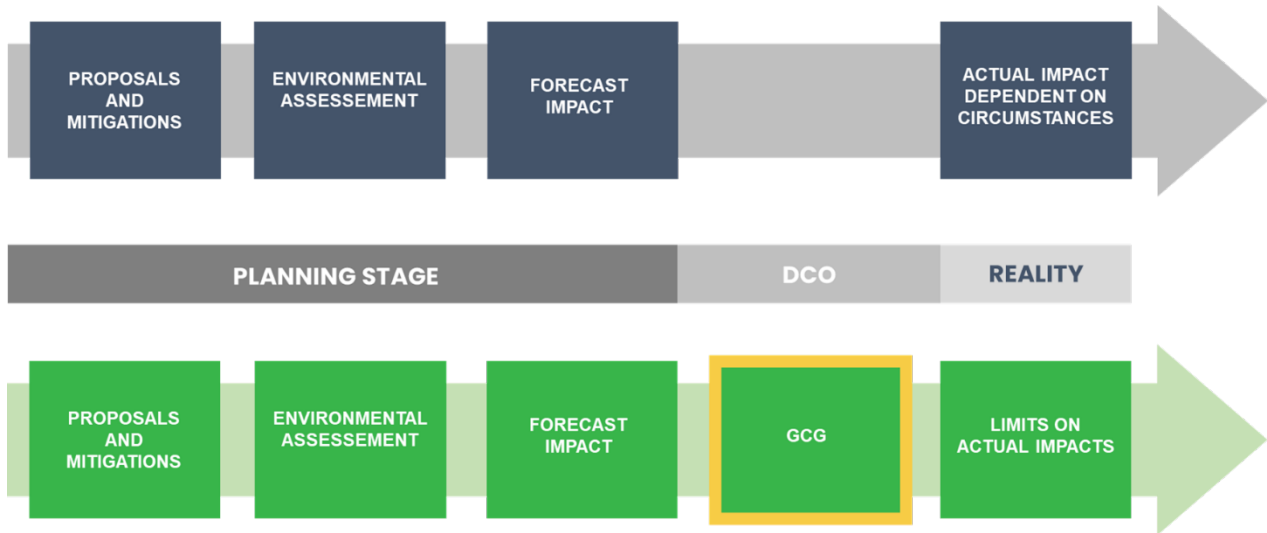
- 2.3.2 The EIA process may require the forecasting of environmental effects long into the future and this can introduce some level of uncertainty. This means, for example, that there is the potential that new and unforeseen mitigation measures may be available in 2040 that are more effective or have fewer disbenefits than the measures we currently expect to implement. Typically, this means that a project's eventual effects will depend to some extent on future circumstances.
- 2.3.3 However, whilst all significant infrastructure projects making applications for development consent or planning permission require consideration of environmental effects (i.e. in the form of an EIA), the development consent or planning permission rarely imposes Limits on the extent of most (or all) of the effects themselves. Typically, the assessment of environmental effects is therefore solely based on forecasts put forward at the time of consent, often long into the future, rather than linked to monitoring throughout the ongoing operation of the development<sup>a</sup>.
- 2.3.4 In order to place our commitment to environmental sustainability at the very centre of our expansion proposals, we are proposing a binding framework for managing the growth and operation of the airport through the coming decades within Environmental Limits based on the outputs of our EIA.
- 2.3.5 Implementing 'Limits' through GCG means that the environmental impact of the expansion of the airport will not be solely dependent on how well mitigation and other controls identified at the planning stage work in practice. Instead, we are proposing to create a dynamic mechanism that will make future growth dependent on achieving clear environmental objectives. The actual effects of expansion will be monitored and reported on, and additional steps taken if needed to ensure that the forecast effects will not be exceeded.
- 2.3.6 This approach therefore far exceeds what is typically offered by, or imposed on, the developers of major infrastructure projects, thereby providing a level of ongoing assurance and control over the environmental effects of expansion.
- 2.3.7 Together, the mitigation we embed into our proposals through careful planning and design, any additional mitigation we offer, and the further assurance we propose through GCG, will ensure that the benefits of the expansion of the airport outweigh its mitigated environmental effects.
- 2.3.8 Our GCG Proposals will be enforceable and remain 'active' beyond the grant of development consent, providing an ongoing means of managing the effects of the airport as it grows. Figure 2.2, below, illustrates the difference between our

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<sup>a</sup> In an airport context, aircraft noise is typically the only environmental effect where there is a defined limit for ongoing airport operations, usually defined by a planning condition associated with the planning permission that authorised the current capacity at that airport, as is the case currently at Luton.

proposal and the way that environmental effects are managed through a typical planning consent.

Figure 2.2: Comparison of GCG approach to traditional approach



2.3.9 Through our GCG Proposals we will commit to growing and operating the airport in future within a meaningful and challenging framework of binding environmental constraints, which must not be exceeded.

2.3.10 We believe our GCG Proposals are one of the most far-reaching commitments to managing environmental impact ever put forward by a UK airport.

## 2.4 Benchmarking Against Other Airports

2.4.1 In developing our GCG proposals, we have reviewed other airports’ environmental commitments around existing operations and any published expansion plans, in order to understand actions that other airports in the UK and abroad are taking to manage their environmental effects. The focus of this review has been on the environmental commitments associated with air quality, GHG emissions, aircraft noise and surface access. Table 2.1 is not intended to be a comprehensive list, but summarises some of the more ambitious commitments made by other airports.



Table 2.1: Examples of environmental commitments of major UK and international airports

Environmental Impact	Airport	Commitments
<b>Air Quality</b>	Multiple	Ensure legal requirements for air quality concentrations are met and work to reduce airport-related emissions.
<b>GHG Emissions</b>	Birmingham	Commitment to become a net zero carbon airport by year 2033 (Scope 1 and 2 emissions) <sup>b</sup> .
	Bristol	Commitment to be carbon neutral for surface access emissions from journeys to and from the airport from 2020.
	Stockholm Arlanda	Cap on Scope 1, 2 and 3 carbon emissions <sup>b</sup> , secured through the environmental permit required to operate.
<b>Aircraft Noise</b>	London Gatwick	By 2024, minimum 80% of movements to be by Chapter 14 aircraft <sup>c</sup> .
	Birmingham	96% compliance for Continuous Descent Approaches <sup>d</sup> .
	London Heathrow	Voluntary ' <i>Quiet Night Charter</i> ' to achieve quieter night flight operations <sup>12</sup> .
<b>Surface Access</b>	London Heathrow	Targeting an increase in passenger public transport mode share from 38% to 50% by 2030, and 55% by 2040 (based on the requirements within the Airports National Policy Statement). Additional ambition for no net increase in airport-related traffic, whilst expanding from ~81 mppa to 135 mppa.

2.4.2 The examples identified through this review have been used to inform the development of the GCG Limits, as set out in Section 4. We recognise that all airports are unique, with their own constraints and opportunities which intersect with the different environmental topics. Therefore, whilst it might not be possible or practicable for the airport to replicate every measure proposed by every other airport, our ambition, when considered cumulatively across all areas, is to make one of the most far-reaching commitments to minimise environmental effects ever put forward by a UK airport.

2.4.3 Importantly, with the exception of Stockholm Arlanda, the majority of commitments made by airports which are outlined in Table 2.1 are essentially aspirational, in the sense that they do not entail material consequences for failing to meet them. What makes our GCG Proposals unique is the binding

<sup>b</sup> Scope 1 and Scope 2 emissions are those associated with electricity, heating, lighting etc but excludes Scope 3 emissions from surface access or aviation. For more information, please see paragraph 4.4.6.

<sup>c</sup> This refers to Chapter 14 of ICAO Annex 16 Volume I, a document that contains international aircraft noise standards. The Chapter 14 noise standard applies to newly-designed high-weight aircraft entering service from 2017 and for lower weight aircraft entering service from 2020.

<sup>d</sup> A Continuous Descent Approach is a continuous, rather than stepped, descent. Descending in this way reduces noise and fuel consumption.

nature of the commitments it includes across multiple environmental areas, directly linking airport growth to achieving environmental targets.

## **3 OUR DRAFT GCG PROPOSALS**

### **3.1 Overview**

3.1.1 This section sets out our innovative GCG Proposals, including the environmental topics for which we are proposing Limits, the proposed governance and structure of the new bodies that would oversee GCG, and the proposed monitoring, reporting and enforcement procedures.

3.1.2 Section 4, following, provides the emerging technical position with regard to defining the Limits for each of the environmental topics. This will be developed further as we progress towards our application for development consent based on the results of the EIA process, engagement with stakeholders and the feedback received through this consultation and any subsequent engagement.

### **3.2 Defining Limits for Future Airport Effects**

3.2.1 Through our GCG Proposals, we are proposing a series of clearly specified 'Limits' for the individual environmental effects of the expanding, expanded, and lifetime operation of the airport. By enshrining these Limits as part of the DCO, our GCG Proposals will ensure that the actual effects of the airport as they manifest over time are monitored and timely measures taken to ensure those Limits are not exceeded.

3.2.2 The EIA addresses 15 separate environmental topics in addition to the in-combination and cumulative effects of the Proposed Development. We are proposing that GCG focuses on four key environmental topics which are directly linked to the throughput of the airport and where, therefore, environmental effects on communities have the greatest potential to change as the numbers of flights and passengers using the airport increase over time. These are:

- a. Aircraft Noise;
- b. Air Quality;
- c. Greenhouse Gas emissions; and
- d. Surface Access.

3.2.3 We feel that these are the appropriate topics for GCG to cover for several reasons. Firstly, these are the environmental topics that are most closely correlated with the growth of the airport in terms of passenger numbers and aircraft movements. As a consequence, these are the effects that are subject to greater potential uncertainty over time. We expect the extent of these effects to change as the airport expands rather than the impact happening as a result of construction, as would be the case with biodiversity for example.

3.2.4 Other environmental effects relating to, say, the existence of the new infrastructure will be managed and mitigated in accordance with the measures identified in the ES and secured separately through the DCO. These effects might include, for example, the potential effects of the proposed new earthworks and construction activities on archaeology and biodiversity. These effects would not form part of our GCG Proposals.

- 3.2.5 Secondly, we also acknowledge that there must be a balance between protecting surrounding communities against unacceptable levels of impact, and not placing an unsustainable burden on both the Airport Operator and local authorities in respect of the administration of monitoring, reporting, and enforcement of our GCG Proposals. On that basis, we believe that the four topics that we are proposing GCG should cover are those that are of key importance, and where effects greater than those forecast may have the greatest potential to affect communities around the airport and other key stakeholders.
- 3.2.6 A range of additional management plans and strategies covering other environmental topics will also be submitted as part of the ES with the application for development consent, in addition to Luton Rising's overall Sustainability Strategy which was updated and published in January 2022. Draft versions of these plans and strategies are included as appendices to the **PEIR**, with those most relevant to GCG including the following:
- a. Draft Air Quality Plan (Appendix 7.2 of the **PEIR**);
  - b. Draft GHG Management Plan (Appendix 12.1 of the **PEIR**); and
  - c. Draft Operational Noise Action Plan (Appendix 16.2 of the **PEIR**).
- For surface access, the **Getting to and from the airport – emerging Transport Strategy (SAETS)** outlines the proposals for the Framework Travel Plan that will be submitted as part of the application for development consent.
- 3.2.7 These plans will be secured as requirements of the DCO, which will ensure that the mitigation measures outlined within them are implemented during construction and operation of the expanded airport. Further detail on their interface with the plans required through GCG is provided in Section 3.5.
- 3.2.8 Table 3.1 sets out our proposals for the effects we will seek to limit under each of these topics, together with an indication of how the Limit will be expressed. The Limits themselves (which are indicatively introduced for each topic in Section 4) will be informed by the comprehensive EIA and other assessments such as the Transport Assessment (TA) which we are undertaking to identify the effects of our proposals.
- 3.2.9 Section 4 provides further detail and the emerging technical position with regard to defining the Limits across each of the four environmental topics. This will then be finalised for our application for development consent after further work on the EIA and associated assessments over the coming months.

Table 3.1: Proposed nature of GCG limits

Environmental Topic	Potential Effect	What GCG will control
Noise	Increased exposure to aircraft noise for local communities	Total area of aircraft noise contours (daytime and night time)
Air Quality	Increased exposure to pollutants for local communities	Specified pollutant concentrations
GHG Emissions	Increased GHG emissions, contributing to climate change	GHG emissions per annum
Surface Access	Increased congestion on local and strategic road networks	Minimum % of passengers and staff travelling by public/sustainable transport

- 3.2.10 For each of these four topics we will put forward in our application for development consent a formal proposal for:
- a. How the level of environmental effects will be assessed;
  - b. The specific quantified **Limit(s)** to be adopted, above which the Airport Operator must not make any additional capacity at the airport available or release any new slots to allow new flights to be operated. The Airport Operator must also prepare a Mitigation Plan to address the impact, reducing it back below the Limit;
  - c. An intermediate **Level 2 Threshold**, close to the Limit(s), above which the Airport Operator must not make available any additional capacity at the airport unless it is in accordance with an approved Level 2 Plan. The Level 2 Plan must also show how the impact and any increases in capacity will be managed to ensure the Limit is not breached;
  - d. An initial **Level 1 Threshold** comfortably below the Limit(s), below which the Airport Operator may freely allow increased flight operations, and above which the Airport Operator may increase airport capacity on the basis of a Level 1 Plan showing how the increase can be accommodated within the GCG limits; and
  - e. The planned phasing of all such values over time.
- 3.2.11 Further information on the Growth Plans, Level 1 Plans and Level 2 Plans is outlined in Section 3.5, and airport capacity and slot release are discussed in further detail in Section 3.6.
- 3.2.12 Limits and Level 1 and Level 2 Thresholds for each individual GCG topic will be fixed as part of the DCO application, but phased to evolve over time following the granting of development consent.

- 3.2.13 As outlined in Section 4, the ultimate levels adopted for Limits and Level 1 and Level 2 Thresholds will be developed on the basis of outputs from our Environmental Impact Assessment.
- 3.2.14 We are proposing that the GCG approach should apply to any growth that occurs at the airport beyond the consented baseline position at the point that the DCO is granted (see section 1.1 above) and which is implemented under the terms of the DCO. We are proposing that a Transition Period should apply for the first 24 months of GCG, which is outlined in Paragraph 3.5.13 onwards.
- 3.2.15 Section 4 provides indicative information about the limits we are proposing for each of the four environmental topics, including how we are proposing to derive the value of each Limit, and indicative values for the Limits based on the outputs of the **PEIR**.

### **3.3 Independent Scrutiny and Review**

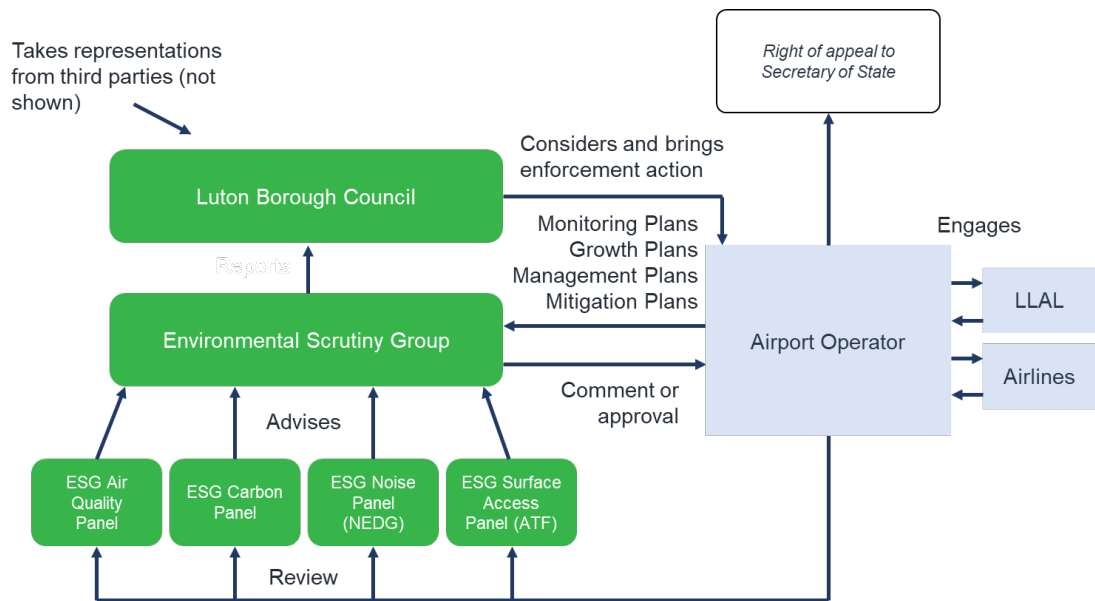
- 3.3.1 Effective scrutiny and review of the environmental effects of the airport, combined with robust governance, is fundamental in making our GCG Proposals effective.
- 3.3.2 The DCO will define the necessary procedures relating to the governance of GCG, creating a legal framework for compliance and enforcement.
- 3.3.3 At the heart of GCG governance will be a new body we propose to establish through the DCO, provisionally named the Environmental Scrutiny Group (ESG). The proposed membership of the ESG is described at Paragraph 3.3.7. Supplementing the standard approach to the discharge of DCO requirements and enforcement, we envisage that the ESG will be provided with the following powers to exercise at its discretion:
- a. Potentially, approving or modifying Monitoring Plans produced by the Airport Operator setting out how the effects in each area will be monitored (see Section 3.4);
  - b. Reviewing periodic Monitoring Reports produced by the Airport Operator (see Section 3.4);
  - c. Responding to Level 1 Plans put forward as required by the Airport Operator if any GCG impact has exceeded a Level 1 Threshold, or if significant levels of growth are planned (see Section 3.5);
  - d. Approving Level 2 Plans or Mitigation Plans put forward as required by the Airport Operator if any GCG impact has exceeded a Level 2 Threshold or Limit respectively (see Section 3.5); and
  - e. Potentially, creating its own Mitigation Plans that the Airport Operator must comply with if the Airport Operator's own Mitigation Plans have not been successful or have not been implemented (see Paragraph 3.5.11).
- 3.3.4 In exercising these powers and functions, the ESG would be supported by four new Technical Panels established by the DCO (one for each of the environmental topics covered by GCG, as set out in paragraph 3.2.2). The proposed membership of the Technical Panels is described in Paragraph 3.3.9

below. The Technical Panels would provide technical expertise to ESG in interpreting monitoring outputs, and determining the suitability and effectiveness of Level 1 Plans, Level 2 Plans and Mitigation Plans put forward by the Airport Operator.

3.3.5 The Airport Operator would be obliged to comply with the procedures outlined above.

3.3.6 The bodies and processes described above which form the core architecture of GCG are summarised in the diagram in Figure 3.1.

Figure 3.1: Proposed governance arrangements within our GCG Proposals



3.3.7 The ESG is currently proposed to include representatives of the host local authorities, which are LBC, Hertfordshire County Council, North Hertfordshire District Council and Central Bedfordshire Council. This is due to the fact that the host authorities are those that are most likely to experience the greatest environmental effects as a result of expansion due to their proximity to the airport. The representatives of the local authorities on ESG should be appropriately qualified planning professionals, working within the planning department of the relevant local authorities.

3.3.8 We are also proposing that the ESG should have an independent chair, and include other independent members, of which at least one should be an independent specialist on aviation. The functions of the ESG will be defined by Terms of Reference, including the process by which the ESG makes decisions, to be submitted and approved as part of the DCO.

3.3.9 The Technical Panels are proposed to include relevant stakeholders which could include representatives of local residents, regulatory bodies, other Local Authorities, and specialist technical advisors. Defined Terms of Reference would be set out for the Technical Panels such that they can effectively review Monitoring Plans and outputs and make recommendations to the ESG to support it in carrying out its duties in relation to the enforcement of Limits.

3.3.10 Figure 3.1 also shows how the ESG will engage with LBC, and the role that LBC then has in considering representations from other Planning Authorities in deciding whether formal enforcement action should be taken in event that the GCG process has not been followed. It is proposed that LBC should have the lead role in taking any formal enforcement action as the local authority for the land in which the majority of the Proposed Development is located although, as described at Paragraph 3.9.7 other planning authorities may also be able to take enforcement action where appropriate.

3.3.11 It is expected that the ongoing reasonable costs of the ESG, including meetings, monitoring, and funding of necessary technical support to the Technical Panels would be funded by the Airport Operator.

### **3.4 Monitoring and Reporting**

3.4.1 The Airport Operator will be required by our GCG Proposals to carry out regular monitoring of the airport's environmental effects to enable the ESG (supported by the Technical Panels) to oversee performance against the GCG Limits.

3.4.2 The Airport Operator will first be required to develop a Monitoring Plan for each GCG topic for approval (for example, through the DCO or by the ESG), setting out in detail its plans and methodology for monitoring and reporting effects in each area. This will need to include how, where, and when the data needed to verify the airport's performance against the Limits will be collected, analysed, and reported.

3.4.3 Monitoring data itself should be made available to the ESG promptly, with formal reporting taking place annually in a Monitoring Report. This is due to the nature of the Limits as set out in Section 4, some of which have to be measured at particular points in time or are reported on by third parties on an annual basis, on timescales outside the Airport Operator's control.

3.4.4 However, we acknowledge that GCG should be as flexible and responsive as possible, with potential breaches of Limits identified ahead of time so that corrective action can be taken. As such, we will be considering how more frequent informal monitoring can also be made available so that the trajectory of effects can be understood.

3.4.5 We believe this will be particularly important early in the airport's expansion and around specific milestones during the development and operation of the airport. This could build on the existing monthly reporting to the CAA, or quarterly reporting to the London Luton Airport Consultative Committee (LACC).

3.4.6 Once Monitoring Plans are approved (for example through the DCO or by the ESG), the Airport Operator must monitor and report the effects in line with them. A Monitoring Plan may in future be changed or updated if agreed by the Airport Operator and ESG, for example in response to new technology being made available. The ESG (supported by the Technical Panels) would be responsible for reviewing these Monitoring Reports.

3.4.7 It is also essential for the effective operation of GCG that monitoring is reported in a way that can be readily interpreted to support effective decision making and



maintain trust. Our GCG Proposals will therefore require the Airport Operator to make monitoring results publicly available and failure to do so would be a breach of the requirement to implement GCG. This could potentially form part of the airport’s existing Annual Monitoring Report.

### 3.5 Level 1 Plans, Level 2 Plans, and Mitigation Plans

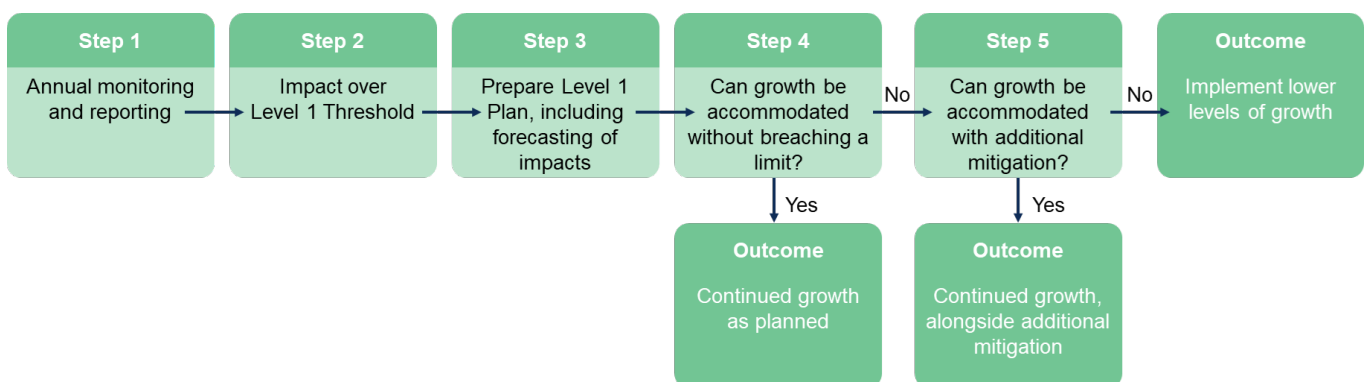
3.5.1 A fundamental principle of our GCG Proposals is that, as the magnitude of a particular environmental effect increases, a series of checks and balances are implemented as the airport continues to grow. This is intended to ensure that the extent to which an effect is occurring can be controlled as it approaches a GCG Limit, with the ultimate intention that the Limit is not exceeded. The three types of plans outlined below therefore provide the mechanism for securing any additional mitigation beyond that already committed to through the relevant plans secured by requirements of the DCO, as outlined previously in Section 3.2. Those plans would continue to be implemented to ensure compliance with the relevant requirements of the DCO, independent of the GCG plans below.

3.5.2 As a first step, a Level 1 Plan would be required if the Airport Operator wishes to increase flight operations at the airport while any impact is above the relevant Level 1 Threshold. The Level 1 Plan would need to show how the relevant Limit would not be exceeded as the airport grows.

3.5.3 A Level 1 Plan must set out the Airport Operator’s proposals to increase airport capacity over at least the next 24 month period. It will also need to include an assessment of whether the proposed increase in throughput could be accommodated without breaching the relevant GCG Limit. The Level 1 Plan could include both forecasting and proposals for specific additional interventions, to provide assurance that the GCG Limits would not be breached. The ESG would respond to the Level 1 Plan, and the Airport Operator will be required to have regard to this response in the implementation of the Plan, though the ESG would not have formal approval rights.

3.5.4 The proposed approach to Level 1 Plans is set out in Figure 3.2.

Figure 3.2: Proposed approach to Level 1 Plans

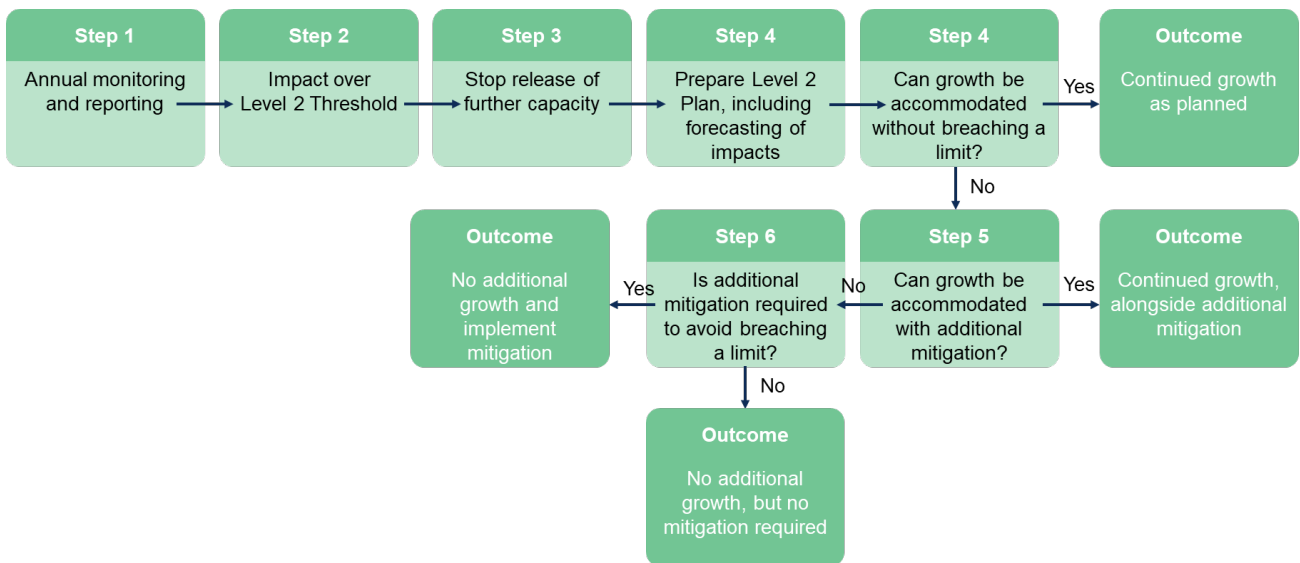


3.5.5 A Level 2 Plan would be required whenever Monitoring Reports show that any GCG impact(s) have exceeded the Level 2 Threshold, without exceeding the Limit. Until a Level 2 Plan is approved by the ESG, the Airport Operator will not

be permitted to declare any increase in airport capacity, but within this cap it will be permitted for new slots to be allocated.

3.5.6 A Level 2 Plan will need to demonstrate that continued operations at the declared level of airport capacity will not result in the impact(s) increasing above the Limit. It may potentially also demonstrate that some further increase in airport capacity is possible without the Limit being breached. Where this is not the case, the Level 2 Plan should include additional interventions or mitigation to ensure that the Limit will not be exceeded.

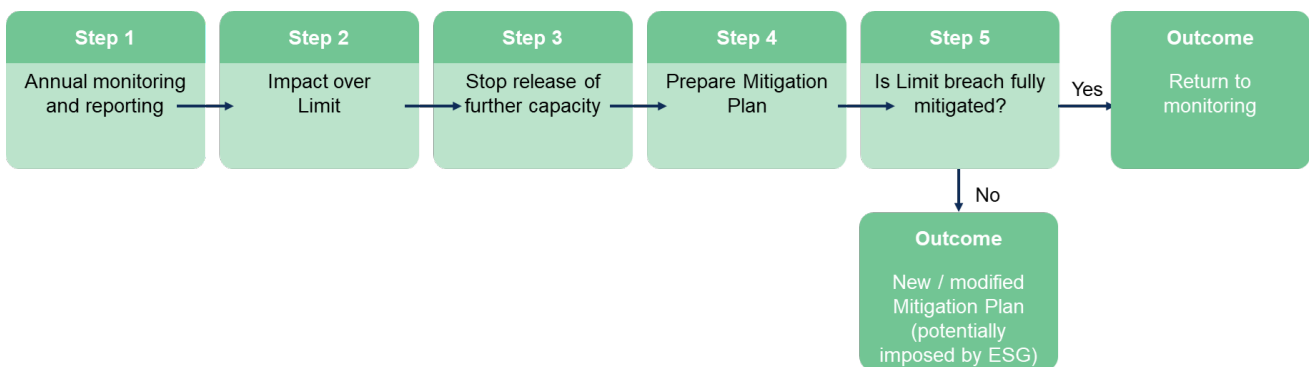
Figure 3.3: Proposed approach to Level 2 Plans



3.5.7 A Mitigation Plan would be required whenever Monitoring Reports show that any GCG impact(s) have exceeded the Limit level. Where this has occurred, the Airport Operator will not be permitted to declare any increase in airport capacity, and nor should any additional slots be allocated.

3.5.8 A Mitigation Plan would need to set out the Airport Operator’s plan for bringing the impact(s) back below the Limit. The Mitigation Plan must include forecasting to demonstrate that this will be the case, and include a timescale for the impacts to be reduced to this level. The Mitigation Plan should also include proposals for enhanced monitoring over this period.

Figure 3.4: Proposed approach to Mitigation Plans



- 3.5.9 If, in the opinion of ESG (as informed by the Technical Panels), the Level 2 Plan or Mitigation Plan is not likely to satisfactorily avoid or address a breach of the GCG Limits, the ESG may require modifications to the Airport Operator's plans.
- 3.5.10 Where a Mitigation Plan put forward by the Airport Operator has not been effective within the timescales set out, we are proposing two potential approaches. The first would be that the Airport Operator must submit a new Mitigation Plan, following the same process as previously. The second option would be for the ESG (or a third-party with suitable expertise in aviation appointed by them) to have the ability to direct the Airport Operator to implement a different Mitigation Plan.
- 3.5.11 However, if a Level 2 Threshold or Limit is breached in circumstances which are beyond the control of the Airport Operator, and that are temporary in nature, the process allows in those circumstances for the ESG (as informed by the Technical Panels) to confirm that no Level 2 Plan or Mitigation Plan is required. Examples of where this might be the case could include engineering works on the railway impacting the Surface Access passenger mode share Limit, or dust storms or other unpredictable weather events impacting an Air Quality Limit.
- 3.5.12 There are also specific exemptions that the Secretary of State has the power, under Section 78 of the Civil Aviation Act 1982, to permit circumstances where movements may be disregarded from noise restrictions at designated airports; we envisage that similar exemptions would apply in the context of noise monitoring for GCG. The exemptions provide dispensations which meet criteria set out in government guidelines where circumstances are beyond the control of the airport operator. Similarly, there may be some circumstances where subject to the Airport Operator making an appropriate contribution towards an agreed piece of mitigation, that they can continue to increase capacity and that new slots can be allocated. An example of this could be where airport-related traffic has been found to make a small contribution towards the breach of an air quality Limit, with mitigation to be delivered by a third party and funded by multiple sources.
- 3.5.13 As outlined in Paragraph 3.2.14, we are proposing that a Transition Period should apply for the first 24 months of the operation of our GCG Proposals. In this Transition Period, the Airport Operator would carry out monitoring in accordance with an approved Monitoring Plan, and submit Monitoring Reports to the ESG, as per the process set out post Transition Period.
- 3.5.14 During the Transition Period, all Level 1 Thresholds would apply. If the monitoring carried out by the Airport Operator showed that the level of environmental impact was above the Level 1 Threshold, there would be a requirement to submit a Level 1 Plan following the process set out in Figure 3.2. However, the Level 2 Threshold and Limit would not apply, to allow the Airport Operator time to reduce environmental impacts and avoid a 'cliff-edge' as our GCG Proposals are implemented. Beyond the initial 24 months of the Transition Period, the Level 1 Threshold, Level 2 Threshold and Limit would all apply.
- 3.5.15 The Airport Operator's compliance with Level 1 Plans and approved Level 2 Plans or Mitigation Plans would be assessed by the ESG, including whether interventions have been implemented as proposed.

- 3.5.16 The Airport Operator would have a right to appeal to the Secretary of State over decisions by the ESG, for example the failure to approve a Level 2 Plan or Mitigation Plan, or where it is felt that an event beyond the Airport Operator's control has resulted in an impact above a Limit but this has not been accepted by the ESG.

## 3.6 Green Controlled Growth and Slot Co-ordination

- 3.6.1 At London Luton Airport, in common with all London airports, the number of flights operating is determined by the number of available 'slots'. Ownership of a slot allows an airline or other aircraft operator to operate a flight at a specific time to or from the airport.
- 3.6.2 Luton is a 'co-ordinated' airport, which means that the process of allocating and co-ordinating slots at the airport is carried out by a third party, Airport Co-ordination Limited (ACL). The process by which slot co-ordination is carried out was established through EU legislation, which has since been transposed into UK law<sup>e</sup> and remains in force following the United Kingdom's exit from the EU. These regulations are also consistent with international industry guidance<sup>f</sup>.
- 3.6.3 Slots are allocated twice a year, for the summer and winter seasons. The first slots to be allocated are those that have 'grandfather rights'. This means that where an airline has operated a flight in a slot for at least 80% of the time in the preceding season, it is entitled to the same slot for the following season, although can operate the slot with a different destination or aircraft. If a slot has not been used 80% of the time it is returned to the 'slot pool', along with any new slots created through additional capacity at the airport. Airlines then apply to ACL for slots to be allocated from the slot pool, with priority given to new entrants to the market to encourage competition.
- 3.6.4 The GCG processes described above will need to be aligned with the programme for slot co-ordination, so that our GCG Proposals can influence how and when new slots are made available. Where recorded effects are close to or above Limits, we will also consider how the slot allocation process can be used to manage environmental effects.
- 3.6.5 There are two existing mechanisms that could be used as part of the slot co-ordination process to address concerns over airport effects. The first of these is a 'capacity declaration'. A capacity declaration is made by the airport, having first consulted the Luton Airport Co-ordination Committee (LACC), comprised principally of the main airlines using the airport and the air traffic control operator. A capacity declaration is made biannually, and is used to establish co-ordination parameters for each season. These parameters set out the maximum capacity available for allocation to airlines considering the functional limitations at the airport such as runway, apron, terminal, airspace, and environmental restrictions.

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<sup>e</sup> The Airports Slot Allocation Regulations 2006 (UK Regulations)

<sup>f</sup> The Worldwide Airport Slot Guidelines, published by published by the Airports Council International (ACI), the International Air Transport Association (IATA) and the Worldwide Airport Coordinators Group (WWACG)

- 3.6.6 Slots can only be allocated where their use will not exceed the declared capacity of the airport, which in some cases may mean that slots must be re-timed or cannot be allocated at all. Capacity declarations are currently in use at the airport, which has recently made capacity declarations to ensure that stand and terminal capacity is not exceeded, and to manage the size of the night-time noise contour<sup>13</sup>.
- 3.6.7 The LACC may also propose that a 'local rule' be implemented. Local rules can be used to manage a range of airport specific matters, including environmental matters such as night flight restrictions. There are three local rules currently in place at the airport, including a 'night quota' rule. This rule is designed to provide a simple means of accounting for the different noise levels generated by different aircraft when considering the airport's overnight noise impact.
- 3.6.8 Based on aircraft noise certification data, each aircraft type is allocated a Quota Count (QC) value, with quieter aircraft given a smaller QC. An airline can then only operate flights up to the value of the total quota. This gives more control over noise levels than a simple overall movement cap for the airport as noisier aircraft will count more towards an airport's total quota than quieter aircraft.
- 3.6.9 Both capacity declarations and local rules could be used either independently or in combination to manage environmental effects at the airport to ensure that the airport stays within its GCG Limits. It is therefore anticipated that they will form a crucial part of the toolbox of interventions that the Airport Operator could use to manage or mitigate environmental effects at the airport within the context of GCG.

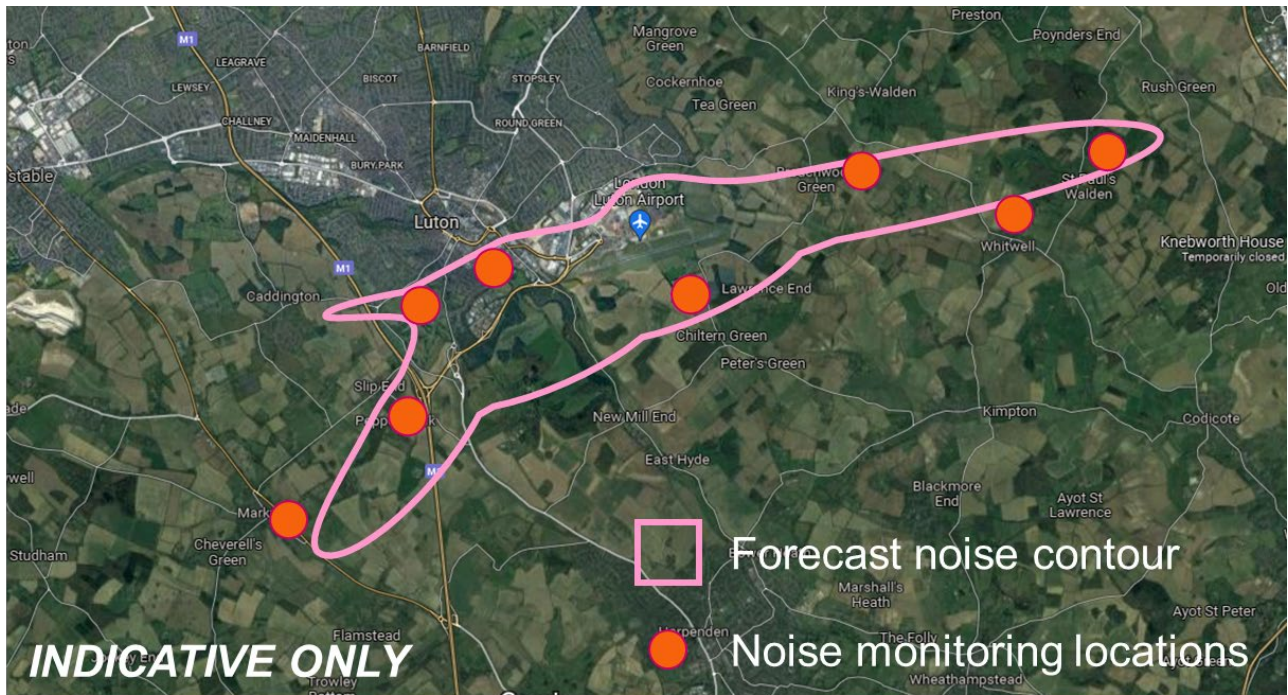
### **3.7 Worked Example – Aircraft Noise**

- 3.7.1 To illustrate how the processes within GCG would function over time, including the steps that would need to be taken by different parties, such as the Airport Operator or ESG, we have prepared the following hypothetical worked example, based on the Aircraft Noise Limits. Note that the scenarios set out in the example below are assumed to be beyond the initial 24-month Transition Period.

#### **Monitoring and Reporting**

- a. A Monitoring Plan is produced by the Airport Operator, detailing when, where, and how noise monitoring and reporting will take place. The Monitoring Plan would be based on calculated noise contours based on airport operational data, potentially supported by other metrics such as performance against a QC count.

Figure 3.5: Indicative monitoring regime for aircraft noise



- b. The Monitoring Plan is approved (for example through the DCO or by the ESG), or not approved and returned to the Airport Operator for amendments.
- c. Monitoring takes place throughout the summer period following the implementation of growth permitted through the DCO, with formal reporting periodically, as defined by the Monitoring Plan.
- d. Monitoring results are compared to the Limits and Thresholds and submitted to ESG in a Monitoring Report.
- e. ESG reviews the Monitoring Report (through the Technical Panel), with next steps dependent on the how monitoring results compare to maximum permitted noise levels.

### Scenario 1: Noise contour below Level 1 Threshold

- a. Monitoring shows the size of the average noise contour below the Level 1 Threshold.
- b. Growth can continue unconstrained, subject to performance against other environmental Limits.
- c. Monitoring continues as per Monitoring Plan.

Noise Monitoring Report



Below Level 1 threshold



### Scenario 2: Noise contour above Level 1 Threshold

- a. Monitoring shows the size of the average noise contour was above the Level 1 Threshold but below the Level 2 Threshold.
- b. Increases in airport capacity can continue. However, a Level 1 Plan is produced by the Airport Operator to demonstrate that the next period of growth (length of this period to be agreed with ESG) can be achieved without breaching the Limit.
- c. The Level 1 Plan includes noise modelling to forecast the size of the noise contour over the next growth period, based on anticipated number of flights, direction of runway use etc.
- d. If this shows that the forecast noise contours resulting from the planned increase in capacity remain below the Limit, the capacity increase can be implemented.
- e. If this shows the forecast noise contours exceed the Limit, the Level 1 Plan must include plans to mitigate effects to bring them below the Limit (for example, a QC-based local rule), or lower levels of capacity increase that do not result in the Limit being breached would need to be implemented.
- f. The Level 1 Plan is submitted to the ESG, via the Noise Technical Panel. The ESG provides comments on the Level 1 Plan, based on the review by the Noise Technical Panel.
- g. The Airport Operator finalises the Level 1 Plan and implements any measures it contains, having regard to any comments made by ESG.
- h. Monitoring continues as per the Monitoring Plan.

Noise Monitoring Report

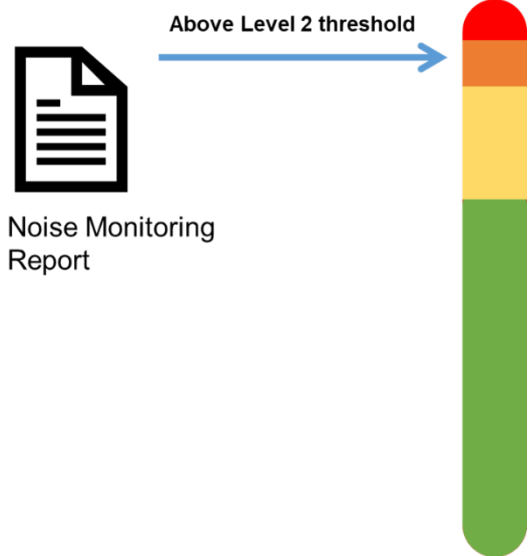


Above Level 1 threshold



### Scenario 3: Noise contour above Level 2 Threshold

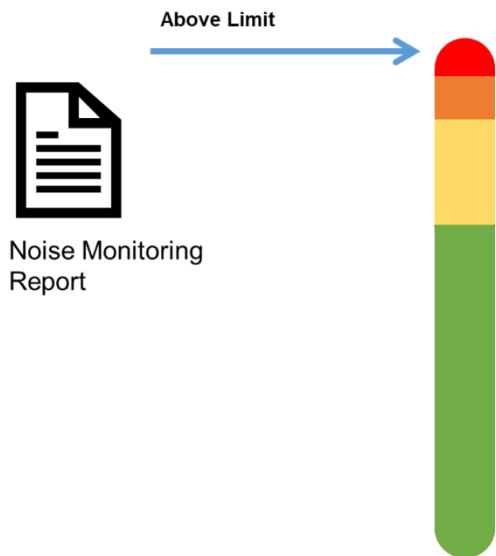
- a. Monitoring shows the size of the average noise contour was above the Level 2 Threshold but below the Limit.
- b. The Airport Operator will not declare any increases in airport capacity.
- c. A Level 2 Plan is produced by the Airport Operator, to demonstrate that measures are in place to stop further increases in the size of the noise contour that would breach the Limit. The Level 2 Plan also assesses whether further increases in the capacity of the airport can be accommodated without breaching the Limit.
- d. Similar to the Level 1 Plan, the Level 2 Plan includes noise modelling to forecast noise effects over the next growth period.
- e. If the noise modelling shows noise contours will exceed the Limit, the Level 2 Plan must include measures to address this (for example, a QC-based local rule).
- f. The Level 2 Plan is submitted to the ESG, via the Noise Technical Panel. The ESG provides comments on the Plan, based on the review by the Noise Technical Panel.
- g. The Airport Operator finalises the Level 2 Plan and addresses any comments made by ESG, in order to seek approval of the plan from ESG.
- h. The Level 2 Plan is approved by ESG and implemented by the Airport Operator, with monitoring continuing as per the Monitoring Plan.





## Scenario 4: Noise contour above Limit

- a. Monitoring shows the size of the average noise contour was above the Limit.
- b. No new slots will be permitted to be allocated through the slot allocation process even if within existing declared limits, and the airport will not declare any increases in capacity.
- c. A Mitigation Plan is produced by the Airport Operator, showing how average noise levels will be brought back below the Limit.
- d. The Mitigation Plan includes a timetable for these measures to take effect and for effects to be reduced below the Limit. These measures could include interventions such as:
  - Commitments from operators or incentivisation towards using quieter aircraft
  - Operational changes to reduce noise exposure from take-off/landing
  - Implementation of a Local Rule to tie slot allocation to noise performance
- e. The Mitigation Plan is submitted to the ESG, via the Noise Technical Panel. The ESG will provide comments on the Plan, based on the review by the Noise Technical Panel.
- f. The Airport Operator finalises the Mitigation Plan and addresses any comments made by ESG, in order to seek approval of the plan from ESG.
- g. The Mitigation Plan is approved by ESG and implemented by the Airport Operator, with monitoring continuing as per the Monitoring Plan. No further allocation of slots is permitted until average noise levels return below the Limit, and no increase in capacity until the average noise levels fall below the Level 2 Threshold.
- h. If monitoring shows the size of the noise contour remains above the Limit beyond the timescales set out in the Mitigation Plan, the ESG may require changes to the Mitigation Plan, or potentially impose their own Mitigation Plan.
- i. Any such proposals would initially be submitted in draft to the Airport Operator for review and comment.
- j. ESG will finalise the Mitigation Plan, having regard to any comments made by the Airport Operator.
- k. The Mitigation Plan is implemented by the Airport Operator, with monitoring continuing as per the Monitoring Plan. No further allocation of



slots is permitted until average noise levels return below the Limit, and no increase in capacity until the average noise levels fall below the Level 2 Threshold.

- I. All of the above steps are subject to the Airport Operator's right of appeal to the Secretary of State.

### **3.8 Ensuring GCG Remains Relevant Over Time**

- 3.8.1 We anticipate a need to provide for elements of our GCG Proposals to be reviewed and potentially updated following the grant of development consent.
- 3.8.2 First, there is a likelihood that Monitoring Plans will need to be updated and refreshed to ensure that they remain relevant. For instance, technology for collecting data might change, or new locations might require monitoring.
- 3.8.3 Second, the magnitude of the Limits or Thresholds may need to be changed, to reflect changes in circumstances not foreseen at the time of the DCO.
- 3.8.4 Finally, the nature of the Limits themselves may also need to be adjusted. For example, this could be to reflect technological changes that affect the definition of public transport, or the desire to set a new Limit for an additional type of air pollutant.
- 3.8.5 The DCO will therefore provide for these elements to be reviewed periodically, and if necessary, adjusted over time, through clearly defined and transparent processes, with the involvement of the ESG.

### **3.9 Compliance with GCG**

- 3.9.1 Our GCG Proposals are intended to ensure transparency over the airport's environmental effects, as well as over the process by which those effects are managed and the accountability for enforcing against non-compliance with the GCG process.
- 3.9.2 By providing a clear set of processes and procedures which must be followed, and measurable Thresholds at which action must be taken, our GCG Proposals will facilitate public and stakeholder scrutiny of decisions connected to the sustainable operation of the airport.
- 3.9.3 The ESG's role in assuring compliance with our GCG Proposals would supplement, rather than replace, the statutory enforcement regime under the Planning Act 2008 (PA 2008).
- 3.9.4 As illustrated in Figure 3.1, we propose that the ESG would report to LBC on any issues related to compliance with the GCG procedures as set out in the DCO. This is on the basis that LBC is the local planning authority for the land in which the majority of the development is located. On the basis of this reporting, LBC would have the power to take formal enforcement action for any failure to act in compliance with the GCG procedures.
- 3.9.5 Provisions in the DCO would require LBC to consult with relevant stakeholders, including other local authorities at the point when a potential breach of GCG procedures is reported by the ESG. In this instance, LBC would be required to

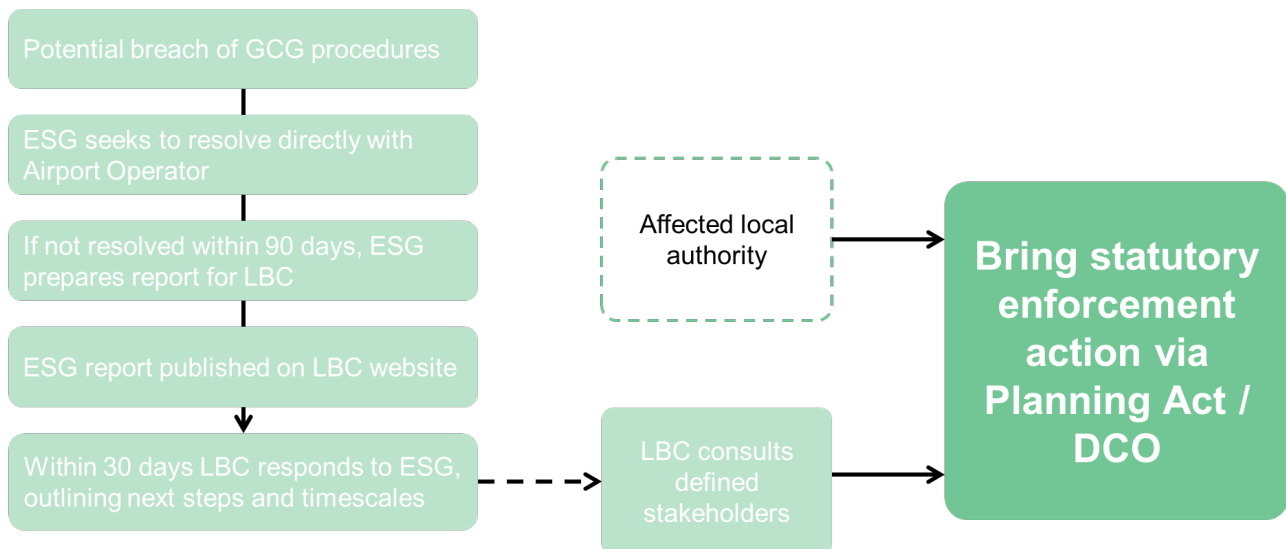
consider any representations in deciding whether to take enforcement action and provide reasons for its decision to the relevant Planning Authorities. LBC would also be required to publish any decision it makes with respect to enforcement action within an agreed time of the potential breach of GCG being reported.

3.9.6 As with any such decision (or failure to take a decision) by a public body, LBC’s response to representations from other Planning Authorities would be subject to potential judicial review; the transparency of all aspects of our GCG Proposals is intentionally designed to ensure that stakeholders and the public would be able to hold the Airport Operator and Airport Owner to account.

3.9.7 Other Planning Authorities would also have the ability to take enforcement action directly, under sections 161 and 163 of the PA 2008.

3.9.8 A summary of the proposed approach to enforcement is set out in Figure 3.6.

Figure 3.6: Proposed approach to enforcement



## 4 HOW WE PROPOSE TO DEFINE THE GCG LIMITS

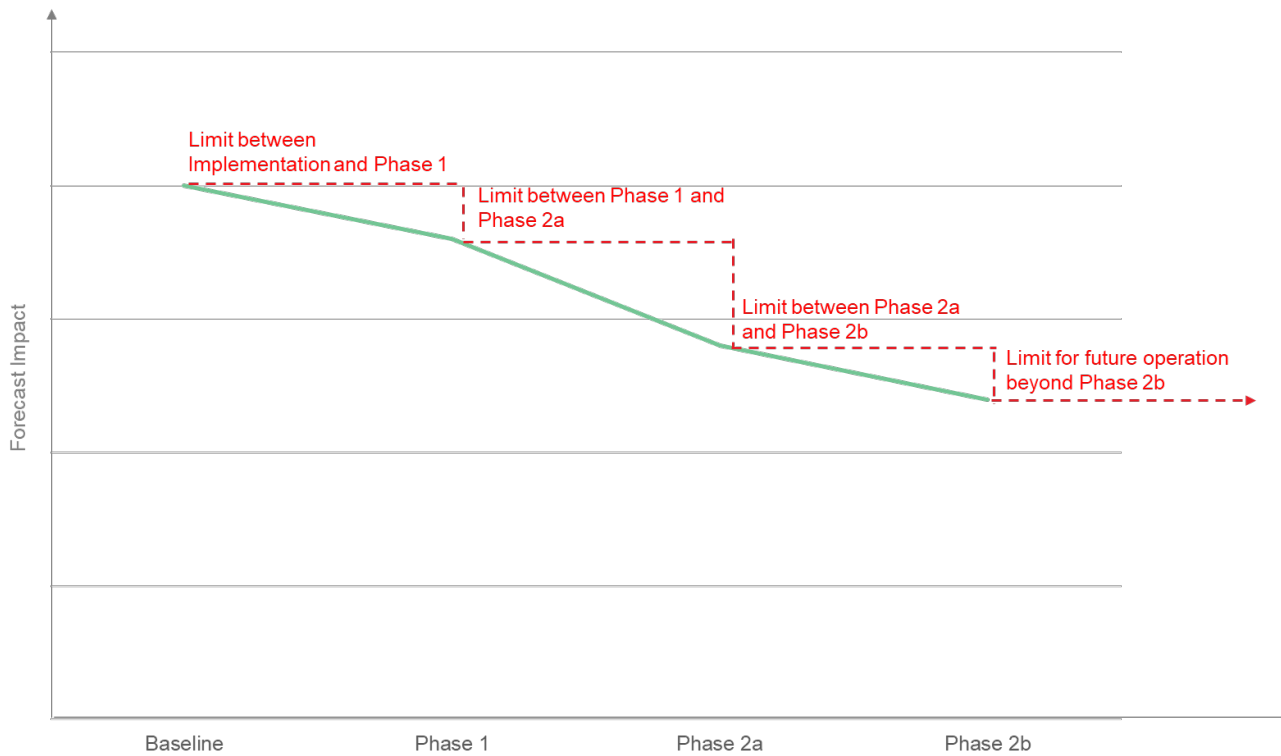
### 4.1 Overview

- 4.1.1 Through GCG we will commit to grow and operate the airport within a series of constraints over environmental effects. This is a positive commitment, which means that airport growth is dependent on the GCG Limits not being exceeded.
- 4.1.2 We are proposing that the values for GCG Limits and Level 1 and 2 Thresholds are based on the forecasts that will be included in the Environmental Statement that will be submitted as part of our DCO application. At this stage therefore we will not be able to put specific finalised values against the Limits, as the forecasting will not be finalised until closer to the time the DCO is submitted. We have though, suggested indicative ranges for these Limits based on the outputs from the **PEIR**. The sections that follow indicate the way in which we propose to express the Limits for Aircraft Noise, Air Quality, GHG Emissions and Surface Access and how they might be monitored.
- 4.1.3 As set out in Section 5.4 of the **PEIR**, effects in each environmental area have been forecast based on a core set of assumptions regarding airport capacity, passenger demand and the impact of new technologies, for example the rate of introduction of newer, quieter aircraft ('the Core Planning Case'). Sensitivity tests have also been carried out, one of which is the 'Faster Growth Case'. This considers the environmental effects of passenger demand increasing faster than in the Core Planning Case, with higher passenger throughput occurring earlier than in the Core Planning Case. The Faster Growth Case also assumes a slower transition to newer aircraft than the Core Planning Case.
- 4.1.4 The Faster Growth Case therefore generally results in greater environmental effects at an earlier date than the Core Planning Case. A Slower Growth Case has also been assessed in the **PEIR** but generally results in lower environmental effects, as growth happens later when aircraft and vehicle technology is further developed, reducing emissions and noise effects.
- 4.1.5 As such, where in this Section we are suggesting indicative ranges for Limits, these have been set with reference to the outputs of the Core Planning Case and the Faster Growth Case. This is to ensure that the indicative ranges we are providing encompass a realistic and robust worst case. It should be noted that the Core Planning Case and Faster Growth Case begin to converge during later years of the project, and as a result the range of values provided for the Limit reduces in size in later phases. Where this is the case, we have provided a range based on a provisional assumption of the potential lower end of the limit sitting 5% lower than the Faster Growth forecast.
- 4.1.6 Where the **PEIR** does not include a quantitative assessment of the impacts of the Faster Growth Case (which is the case for GHG emissions), this section presents a range based on appropriate factoring that takes into account the differences in passenger throughput between the Core Case and Faster Growth Case.
- 4.1.7 The PEIR by definition is preliminary environmental information so our final proposed Limits will be included in our DCO application submission and will be

informed and where necessary adjusted by further technical work over the coming months including the preparation of the Environmental Statement, appropriate sensitivity analysis, and considering all of the responses to this consultation. .

- 4.1.8 We are proposing that the magnitude of each Limit will be set through the DCO in a way that changes over time, based on defined milestones. The purpose of this approach is to recognise that some of the effects of expansion will increase in line with growth at the airport. The milestones are proposed to be:
- a. Phase 1 – The point at which passenger throughput reaches 21.5 mppa, consistent with the assumption in the **PEIR** around the design capacity of the Phase 1 works for Terminal 1;
  - b. Phase 2a – The point at which passenger throughput reaches 27 mppa, corresponding to the assumed design capacity of Phase 2a works in the **PEIR**; and
  - c. Phase 2b – The point at which the maximum consented capacity of 32 mppa is reached.
- 4.1.9 These milestones have been selected to align with the definition of development phases and scenarios assessed in the **PEIR** in order to ensure that the Limits are based on quantified forecasts of the effects of the expanded airport. This approach preserves a degree of flexibility in how the airport is expanded, provided at all times that it does so within the GCG Limits and other parameters established through the DCO.
- 4.1.10 The remainder of this Section sets out how environmental impacts in each of the four GCG areas are forecast to change over time in the **PEIR**, which presents the worst-case impact in each Phase. As the tables in each of the Topic sections below make clear, in some cases forecast impacts will increase from one Phase to the next, while others will decrease from one Phase to the next.
- 4.1.11 Since performance against the GCG Limits will be monitored on an ongoing annual basis, the Limits will need to be set in a way that recognises that impacts will not simply step up or down during a single given year once a Phase is reached, but will change gradually.
- 4.1.12 The value of the Limits between each Phase will therefore be set according to the highest level of forecast impact, either associated with the Phase preceding or the Phase following a given point. This is shown conceptually in Figure 4.1.

Figure 4.1: Approach to setting of Limits between Phases



4.1.13 By way of illustration, if the Phase 1 forecast is for 40% of passengers to be travelling by public transport for Surface Access, and the Phase 2a forecast is 45%, the lower Phase 1 value would apply for the whole period between Phase 1 and Phase 2a, even though over that period the Airport Operator would in practice likely to be taking steps to increase the passenger public transport mode share in readiness for the more challenging 45% Limit applying from the point where Phase 2a is reached.

## 4.2 Aircraft Noise

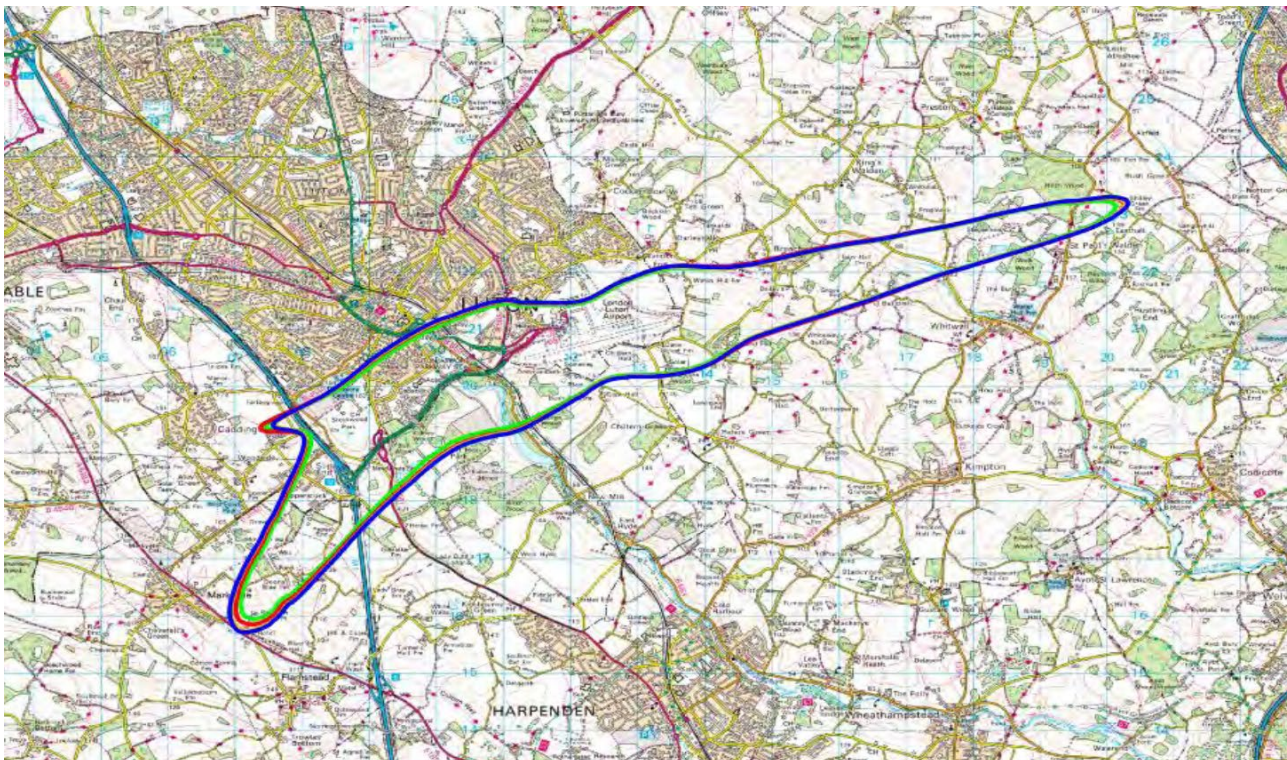
4.2.1 Noise is an important issue for people who live and work around the airport and beneath flight paths. The noise effects associated with the airport’s operations are primarily associated with aircraft noise, which occurs when flights arrive at or depart from the airport.

4.2.2 As part of the DCO application, we will put forward proposals for a Noise Envelope. A Noise Envelope is a legally binding framework of Limits and controls to manage aircraft noise, tailored to local priorities. The Noise Envelope for an expanded airport is being developed by the Noise Envelope Design Group (NEDG), which includes representatives from stakeholders such as local authorities, local community groups, and aircraft operators.

4.2.3 The Noise Envelope and our GCG Proposals have similar principles and common elements. As such, to reduce duplication and the risk of conflict, we are proposing to use elements of the Noise Envelope developed by the NEDG as the Noise element of GCG. In this way, our GCG Proposals will use the work undertaken by NEDG to regulate aircraft noise at the airport.

- 4.2.4 The Noise Envelope includes a number of detailed noise metrics and controls, as well as proposing the retention of a night-time aircraft movement cap, as exists at the airport today. These will continue to form a part of how noise effects are managed at the airport. However, the most common way of quantifying aircraft noise, and one of the key noise control measures proposed by the NEDG, is the total area enclosed by noise contours.
- 4.2.5 A noise contour is a way of defining a geographical area within which the average noise level over a defined time period (using a measure called  $L_{Aeq,T}$ ) meets a set value. The airport's actual summer day-time noise contours for 2018 (green) and 2019 (red), alongside the previously forecast contour for 2020 (blue) are shown in Figure 4.2. The exact shape of noise contours can change year on year dependent on factors such as wind, which is why we are proposing to use the total area enclosed by the noise contour as the basis for our Limit, rather than the specific areas of land enclosed by the contour.

Figure 4.2: Summer day-time noise contours (daytime 57 dB  $L_{Aeq,16h}$ ) for 2018 (green), 2019 (red) and forecast 2020 (blue)



- 4.2.6 The size of noise contours are first of all impacted by changes in numbers of aircraft movements and the type of aircraft being used. Typically, newer aircraft have lower noise effects, which means that as each aircraft movement results in lower noise, a greater number of flights can be accommodated with a lower overall noise impact. This is demonstrated by Section 16.9 of the **PEIR**, which shows a reduction in the size of noise contours with a fully expanded airport in comparison to the baseline position.
- 4.2.7 A summary of how we propose to use noise contours as part of our GCG Proposals is set out in Table 4.1.

Table 4.1: Proposed GCG contour Limits for Aircraft Noise

Proposed Limit	Indicative Forecasts to Inform Limit Values (km <sup>2</sup> )				Proposed Monitoring
	Baseline <sup>9</sup>	Phase 1	Phase 2a	Phase 2b	
Average summer day-time noise levels, as measured by size of 54 dB LAeq,16hr noise contour	38.4	36.1 – 39.1	31.2 – 32.8	35.2 – 37.0	Using calculated noise contours, as currently used in airport noise monitoring, supported by other metrics (such as performance against QC quota) as necessary
Average summer night-time noise levels, as measured by size of 48 dB LAeq,8hr noise contour	52.3	46.1 – 49.3	41.9 – 44.1	47.2 – 49.7	Using calculated noise contours, as currently used in airport noise monitoring, supported by other metrics (such as performance against QC quota) as necessary

4.2.8 The LAeq,T noise measurement is the most common international measure of aircraft noise. It represents ‘equivalent continuous noise level’. Average noise levels over a geographical area, as represented by noise contours, are affected by both the number of aircraft movements, and the noise level from individual aircraft movements. Research by the Civil Aviation Authority has shown that noise contours correlate well with subjective community response to aircraft noise, with the size of a noise contour equating to the area that experiences average noise at or above a certain level.

<sup>9</sup> Baseline figures based on 18 mppa airport throughput included for illustrative purposes – the actual baseline may change.



- 4.2.9 The Airport Operator constantly monitors aircraft noise using a combination of fixed and portable noise monitoring terminals. Both annual and quarterly noise monitoring reports are published on the airport website, and these include noise contours. We intend that this process would continue and that the noise contours produced through this process would form the basis of the Noise Monitoring Plan under our GCG Proposals.
- 4.2.10 This process uses calculated noise contours for a preceding monitoring period to allow noise impacts to be assessed against a Limit. We believe that a retrospective measurement of this nature is the appropriate way of measuring noise performance, as this will allow an assessment of the true noise performance of the airport.
- 4.2.11 However, it is also possible to forecast noise contours (using a similar methodology to that adopted in the **PEIR**), as well as carry out spot checks on noise levels and adopt noise-based Local Rules to manage noise impacts in the scheduling of flights. These approaches would be available for use by the Airport Operator to manage the risk of the Noise Limit being breached, and would likely be a requirement of any Level 1 and Level 2 Plans produced as noise impacts increase in scale.
- 4.2.12 The indicative ranges for the Aircraft Noise Limit set out in Table 4.1 are derived from the noise forecasting work outlined in Chapter 16 of the **PEIR** and its associated appendices. As explained in Section 4.1, the ranges in the forecasts represent the difference between the Core Planning Case and the Faster Growth Case, the latter of which assumes faster growth in passenger demand and therefore flights, and a more pessimistic assumption around the rate at which newer, quieter aircraft are brought into use at the airport.
- 4.2.13 As set out in Section 16.6 of the **PEIR**, there is a recognised issue over the noise performance of A321neo aircraft in use at the airport. The measured noise performance of A321neo aircraft is not currently as good as the expected performance derived from noise certification testing. The **PEIR** assessment uses measured noise performance for A321neo aircraft for the purposes of forecasting Phase 1 noise effects, but assumes that these issues will have been resolved (or equivalent improvements in noise performance implemented) for Phases 2a and 2b. These assumptions have been carried forward into the indicative Aircraft Noise Limit for GCG.
- 4.2.14 As set out in Paragraph 4.2.6, this will result in a Limit that will ensure at full capacity, the noise effects of operations at the airport are lower than those experienced by local communities in the baseline. The proposed upper and lower Limit values in Table 4.1 are based on differing assumptions around the rate at which new aircraft technology is used at the airport (as explained in Section 4.1), but the Limits are structured in a way that the benefits of new technology and newer, quieter aircraft over time are shared between the operator, in the form of growth, and the local community in the form of reduced exposure to aircraft noise.

## 4.3 Air Quality

- 4.3.1 Road traffic is the primary contributor to air quality effects in Luton, and on some roads in and around Luton there are forecast to be increased levels of traffic due to the expansion of the airport. Increased traffic levels associated with trips to and from the airport therefore clearly has potential to negatively affect local air quality.
- 4.3.2 Existing legislation already mandates the monitoring and management of air quality in the UK, and our GCG Proposals must align with this legislative framework. Specifically, the local authorities surrounding the airport have a statutory duty<sup>h</sup> to monitor air quality within their administrative boundaries, report performance against the UK Air Quality Objectives set by the Government for a range of pollutants<sup>14</sup>, and subsequently take action to improve air quality if required<sup>i</sup>. The relative contribution of the airport therefore to any air quality issues is a key factor to be addressed within GCG, as many existing issues are outside of the airport's control, and can only be resolved by LBC and other neighbouring authorities.
- 4.3.3 The main pollutants relevant to human health that are associated with operations at the airport, as identified by the **PEIR**, are different sizes of Particulate Matter (PM<sub>10</sub>, PM<sub>2.5</sub>) and Nitrogen Oxides (NO<sub>x</sub>) – in particular Nitrogen Dioxide (NO<sub>2</sub>). It is these three pollutants that the GCG Limits for Air Quality are proposed to be structured around.
- 4.3.4 The detailed assessments carried out for the **PEIR** and the ES assess the effects of expansion on the total volume of pollutants emitted (emissions), and how they are dispersed across the local area over time (the measurable concentration of pollutants at given locations). Locations which are sensitive to changes in air quality (known as receptors) are those at which human health and ecosystems could be impacted. The assessments in the **PEIR** include modelled scenarios for the current baseline conditions, a future baseline for an 18 mppa passenger limit, and a 'with development' scenario, which includes the phased expansion of the airport to 32 mppa.
- 4.3.5 The proposed GCG Limits for Air Quality are based on the measured concentrations of three types of pollutants (PM<sub>10</sub>, PM<sub>2.5</sub> and NO<sub>2</sub>) most relevant to human health, as set out in Table 4.2.

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<sup>h</sup> Environment Act 1995, Chapter 25, Part IV Air Quality

<sup>i</sup> Specifically, to declare an Air Quality Management Area (AQMA) and produce an Air Quality Action Plan (AQAP) if exceedances are found at relevant locations of exposure.

Table 4.2: Proposed GCG Limits for Air Quality

Proposed Limit	Proposed Limit Values				Proposed Monitoring
	Current	Phase 1	Phase 2a	Phase 2b	
Annual average PM <sub>2.5</sub> concentration	20µg/m <sup>3</sup>	20µg/m <sup>3</sup>	20µg/m <sup>3</sup>	20µg/m <sup>3</sup>	Real-time pollutant monitoring and periodic traffic monitoring, reported annually
Annual average PM <sub>10</sub> concentration	40µg/m <sup>3</sup>	40µg/m <sup>3</sup>	40µg/m <sup>3</sup>	40µg/m <sup>3</sup>	
Annual average NO <sub>2</sub> concentration	40µg/m <sup>3</sup>	40µg/m <sup>3</sup>	40µg/m <sup>3</sup>	40µg/m <sup>3</sup>	

- 4.3.6 The **PEIR** has assessed the modelled change in air quality levels at 477 representative human receptors close to the airport and/or the affected road network. An additional two heritage and 36 ecological receptors were also included within the assessments, for a total of 514 locations.
- 4.3.7 Of these locations, the vast majority either have forecast pollutant concentrations well below the existing UK Air Quality Objective levels, or are forecast to see a negligible change in air quality as a result of the Proposed Development (full results are reported in the **PEIR**). In order to ensure that monitoring is targeted at a proportionate number of locations, we are proposing that sifting criteria are applied to the modelled receptors to identify priority locations for monitoring. The achievement of the Air Quality Limits would then be determined by the monitoring results solely at that more limited number of sensitive locations.
- 4.3.8 The proposed sifting process would be based on the following criteria:
- the relative percentage of total pollutant concentrations linked to airport-related sources (e.g. only locations where greater than 50% of pollutant concentrations are attributable to the airport);
  - locations of particular sensitivity identified by local authorities (e.g. existing AQMAs, schools etc); and
  - locations where existing and/or forecast concentrations are close to (e.g. within 25%) or in exceedance of current UK Air Quality Objectives.
- 4.3.9 The final locations for monitoring would be specified in the Monitoring Plan prepared by the Airport Operator.
- 4.3.10 As set out in Section 3.8, we envisage there being a process for reviewing and amending these locations through ESG, should it be required (for example, due to changes in local traffic patterns affecting air quality levels). At a minimum, this would be expected to be reviewed for each of the three Phases as part of the production of updated Monitoring Plans.

- 4.3.11 We believe that limiting the geographic scope of the Air Quality Limit to only those areas where the airport is meaningfully contributing to levels of pollutants is a proportionate approach to managing the effects of the airport's expansion on local air quality. Notwithstanding this we are also committed to working proactively with LBC and other neighbouring local authorities to manage air quality issues in the wider area.
- 4.3.12 The proposed magnitude of the Limits are linked to the current UK National Air Quality Objectives for the average annual concentrations of the three pollutants. By setting the Limits for each pollutant in this way, this represents a commitment from Luton Rising to stop growth if the airport is materially contributing to an exceedance of the specified pollutant concentration at one (or more) of the identified locations beyond the likely effects reported within the ES.
- 4.3.13 Unlike the other Limits, an exceedance of the Air Quality Limits could however be wholly unrelated to the expansion of the airport, for example, due to growth in non-airport related traffic. Therefore, if monitoring were to show that the Limit was exceeded, the Airport Operator would be required to determine the cause of the exceedance, prior to any further action being required.
- 4.3.14 The need for a Mitigation Plan would be confirmed by ESG based on the analysis of the cause of the breach; no further growth would be allowed if the breach of the Limit was due to a greater than forecast impact from the airport, requiring a Mitigation Plan to be developed to reduce the effects within the agreed level.
- 4.3.15 However, if the breach was a result of factors unrelated to the airport's operation, growth could continue (in line with the ES forecast for airport-related emissions only). In the event that the breach was a result of an increase in both airport-related and non-airport related emissions, the Mitigation Plan would set out a proportionate response from the Airport Operator, relative to their contribution to any breach, to support any interventions to be taken by the relevant local authority.
- 4.3.16 This approach would be reliant on monitoring of both air quality pollutant concentrations (largely through the network of existing monitoring sites, but also through additional temporary monitoring locations as required), and traffic monitoring technology, such as Automatic Number Plate Recognition (ANPR). ANPR is able to record the number and type of vehicles accessing the airport forecourts, car parks etc, which can be compared with total observed traffic at locations near the airport, to determine what proportion of that traffic is related to the airport.
- 4.3.17 It is proposed that air quality monitoring would take place continually, with detailed analysis completed quarterly, and final results reported annually. Traffic monitoring would only be required should the monitoring data show that the forecast effects had been exceeded, to allow further analysis to be completed by the Air Quality Technical Panel. All data would be publicly available and reported as close to real-time where possible.

## 4.4 Greenhouse Gas Emissions

- 4.4.1 Climate change is one of the most urgent concerns currently faced by society. Public awareness of climate change issues is ever increasing, and the aviation sector must play its part in decarbonisation and achieving net zero. As outlined in Paragraph 2.1.7, in recent months the UK Government has published a number of policies and launched consultations around the decarbonisation of the transport sector, highlighting the challenges faced by the aviation industry in particular.
- 4.4.2 This includes the publication of Decarbonising Transport: A Better, Greener Britain, which reflects the Climate Change Committee's recommendation for international aviation emissions to be included within the Sixth Carbon Budget (covering the period 2033-2037). The Government is also developing a specific net zero strategy for the aviation sector, known as Jet Zero, which was consulted on last year.
- 4.4.3 We are determined that the airport should play its role in decarbonising UK transport and the economy generally. Our Sustainability Strategy, updated and published in January 2022, sets out our commitment to achieve net zero for ground operations from 2040, and carbon neutral surface access by 2040. Alongside the Sustainability Strategy, we see GCG as a key part of managing our GHG emissions.
- 4.4.4 GHG emissions are used as a measure and indicator of the impact of expansion on climate change. All GHG emissions, with the exception of aviation-related emissions (in accordance with DfT guidance), are calculated and reported in the **PEIR** and ES as tCO<sub>2</sub>e (tonnes of carbon dioxide equivalent). This analysis accounts for the seven GHGs included in the UN Kyoto Protocol<sup>j</sup>.
- 4.4.5 Carbon dioxide equivalent (CO<sub>2</sub>e) is a measure used to compare the emissions from various GHGs on the basis of their global-warming potential (GWP). CO<sub>2</sub>e is calculated by converting amounts of other gases to the equivalent amount of carbon dioxide with the same GWP, taking account of how long it remains active in the atmosphere.
- 4.4.6 When reporting GHG emissions, it is normal practice to classify emissions as either Scope 1, 2 or 3. Scope 1 emissions are 'direct' emissions that arise from the use of company-owned resources. This includes emissions as a result of any fuel that is burnt on site, for example emissions from company-owned petrol or diesel vehicles.
- 4.4.7 Scope 2 emissions are 'indirect' emissions that occur as a result of activity by other companies to produce energy that is purchased by the reporting company. This primarily relates to the use of electricity that is purchased from off-site sources.

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<sup>j</sup> Carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>).

- 4.4.8 Both the Jet Zero consultation and Decarbonising Transport: A Better, Greener Britain include a commitment to consult on a target of decarbonising all airport operations-related Scope 1 and Scope 2 emissions by 2040. The scheme we are proposing responds to this ambition.
- 4.4.9 Scope 3 emissions are all other ‘indirect’ emissions related to company activity. For an airport, the two main sources of Scope 3 emissions are surface access (passengers and staff travelling to or from the airport) and aviation (emissions arising from flights).
- 4.4.10 Chapter 12 of the **PEIR** considers the impact of GHG emissions associated with an expanded airport. This is reported in four categories, of which we have considered three for inclusion in our GCG Proposals (GHG emissions associated with construction activity will not occur in proportion to the rate of airport growth and are therefore not included). These are summarised in Table 4.3.

Table 4.3: GHG emissions sources arising from the Proposed Development

Activity	GHG emission sources
Airport operations	<ul style="list-style-type: none"> <li>a. emissions from fuel/electricity use for buildings, assets and other infrastructure;</li> <li>b. emissions from fuel/electricity use for landside and airside owned and third-party vehicles and equipment;</li> <li>c. emissions from the transportation and disposal/treatment of operational waste; and</li> <li>d. emissions from the provision of water and treatment of wastewater.</li> </ul>
Surface access journeys	<ul style="list-style-type: none"> <li>a. emissions from fuel/electricity use for the transportation of passengers to/from the airport;</li> <li>b. emissions from fuel/electricity use for the transportation of staff to/from the airport.</li> </ul>
Air traffic movements (ATMs)	<ul style="list-style-type: none"> <li>a. emissions from aircraft fuel consumption during the landing take-off cycle (including descent/ascent up to 3000ft); and</li> <li>b. emissions from aircraft fuel consumption during the climb, cruise, descent phase of flight (i.e. above 3000ft, includes aircraft departing from the airport only to avoid double counting of emissions with other airports).</li> </ul>

- 4.4.11 GHG emissions associated with airport operations are broadly Scope 1 and 2, although with an element of Scope 3 emissions. Because Scope 1 and 2 emissions are those directly within an Airport Operator’s control, we believe it is appropriate for a Limit to be placed on gross Scope 1 and 2 GHG emissions associated with airport operations.
- 4.4.12 Scope 3 emissions, by definition, are not within the Airport Operator’s direct control, but they might still retain some influence. The draft **Sustainability Statement** outlines the steps that we are taking to, for example, incentivise the

use of public transport and electric or other low emissions vehicles for travel to and from the airport. However, the wider rate of uptake of electric vehicles will be driven by factors such as the wider roll-out of charging infrastructure across the UK, the nature and extent of any subsidies introduced by government to encourage the purchase of electric vehicles, and wider societal factors.

- 4.4.13 As such, we are proposing that where any Scope 3 emissions are incorporated into our GCG Proposals they should be expressed as a net Limit, inclusive of any offsetting that the Airport Operator may choose to implement. This would allow the Airport Operator to take steps to ensure that carbon emissions, net of any offsetting, remain within the GCG Limit even where issues beyond their control have impacted their ability to limit gross GHG emissions. This approach would apply to surface access GHG emissions.
- 4.4.14 We have considered the inclusion of Scope 3 aviation emissions into our GCG Proposals in the context of the UK Emissions Trading Scheme (ETS), launched in January 2021. We are proposing to exclude these from our GCG Limit for the reasons set out in the following paragraphs.
- 4.4.15 The ETS introduces a 'cap and trade' approach to the management of GHG emissions. A cap is set on the overall amount of Greenhouse Gases that can be emitted by the sectors covered by the scheme<sup>15</sup>, which includes aviation.
- 4.4.16 Within this overall cap, participants (i.e. airlines, shipping companies, and power generation companies) can buy, sell or trade emissions allowances, allowing increases in one sector to be offset by reductions elsewhere without breaching the overall cap. Through the recent Jet Zero consultation, the UK government has committed to consulting in the near future on setting an appropriate trajectory for the ETS that allows the UK to reach net zero in 2050.
- 4.4.17 Given that this external offsetting mechanism exists, and that compliance with it is a legal requirement for airlines, we do not believe that provision of this mechanism through our GCG Proposals would be appropriate, as the Government has confirmed that it believes aviation emissions are best dealt with at a national level.
- 4.4.18 In addition, setting a GCG Limit that went beyond the ambition of the ETS may lead to undesirable outcomes both for the airport and the wider environment. Any further reduction in allowable emissions arising from such a Limit would result in fewer aircraft operators using their ETS emissions allowances to operate flights to or from the airport. They would however be free to use these allowances to operate to or from other airports.
- 4.4.19 As such, any decreases in GHG emissions from flights operating to or from the airport would simply be offset by equivalent increases elsewhere. This would not help the UK meet its goal of achieving net zero by 2050, nor would it help to address the global effects of climate change. It could also lead to longer surface transport journeys overall as people travel to less convenient airports for flights that might otherwise have been offered at Luton, resulting in greater energy use.

- 4.4.20 We remain committed to supporting the industry to decarbonise, and the draft **Sustainability Statement** sets out the steps we are taking both to embed measures to reduce greenhouse gas emissions directly into the Proposed Development, as well as to future-proof our proposals to help support the future implementation of new technology.
- 4.4.21 We are however proposing to incorporate Scope 3 emissions related to surface access within our GCG Limit for GHG emissions, given that no equivalent to the ETS exists for road transport or rail. This goes beyond what is proposed by the UK government through their Jet Zero proposals, and shows the extent of our ambition to minimise GHG emissions from the airport.
- 4.4.22 A summary of our proposed approach to the GCG Limits for GHG emissions is set out in Table 4.4.

Table 4.4: Proposed GCG Limits for GHG emissions

Proposed Limit	Indicative Forecasts to Inform Limit Values (tCO <sub>2e</sub> /yr)				Proposed Monitoring
	Baseline <sup>k</sup>	Phase 1	Phase 2a	Phase 2b	
Airport Operations CO <sub>2e</sub> emissions	17,163	13,000 – 15,800	5,500 – 6,500	3,100 – 5,400	Emissions inventory calculated annually (retrospectively) based on airport operations data
Surface Access CO <sub>2e</sub> emissions (inclusive of offsetting)	176,694	197,800 – 207,800	143,300 – 149,200	234,100 – 243,600	Emissions inventory calculated annually (retrospectively) based on surface access data

- 4.4.23 An aggregate limit for CO<sub>2e</sub> emissions is proposed. Emissions will be calculated retrospectively on an annual basis, based on data logged around airport operations and surface access.
- 4.4.24 Table 4.4 shows that GHG emissions associated with airport operations will reduce over time, and will remain below the baseline position. By contrast, surface access GHG emissions are forecast to fluctuate over time, which results in the proposed Limit both increasing and decreasing between Phases. This is

<sup>k</sup> Baseline figures based on 18 mppa airport throughput included for illustrative purposes – the actual baseline may change.



due to the balance between the number of surface access trips increasing over time, increasing the potential for GHG emissions, and mode shift away from cars towards public transport, and transition from petrol and diesel cars to electric vehicles, both reducing emissions.

- 4.4.25 It should also be noted that in forecasting surface access GHG emissions, the **PEIR** has been developed on the basis of known plans and robustly foreseeable trends across the scopes of assessment, as described in Section 12.3 of the **PEIR**. The adoption of these assumptions means that the assessment does not take account of the substantial improvements to the carbon efficiency of surface transport which are anticipated in the DfT's Transport Decarbonisation Plan.
- 4.4.26 Since some level of improvement in carbon efficiency over and above what can be confidently predicted is highly likely, this means that the assessment is necessarily conservative, making it an appropriate representation of a reasonable worst case. However, as these improvements in efficiency are delivered, these can be recognised and incorporated into any revised GHG Limit established as part of the periodic review of GCG outlined in Section 3.8.
- 4.4.27 In addition, we published our Sustainability Strategy in January 2022. This sets out how we intend to achieve net zero for ground operations from 2040, and carbon neutral surface access by 2040. These commitments have been made in addition to the Limits we are proposing through GCG, showing our commitment to reducing GHG emissions at the airport in all areas of our operation.

## 4.5 Surface Access

- 4.5.1 Surface access refers to the trips made by passengers, visitors, staff, and goods travelling to and from the airport that are made by different types of transport. This includes travelling to or from the airport by public transport, taxis, cars, lorries, walking, and cycling. It does not include trips by aircraft (e.g. transfer passengers).
- 4.5.2 The majority of surface access journeys to and from the airport are road traffic, and expansion of the airport would increase the amount of road traffic on the local and strategic road network. We recognise that this could have negative effects on both airport and non-airport travellers, through increased congestion on roads. We must therefore ensure that the forecast increase in trips can be accommodated by the transport network (when including the proposed enhancements/mitigation measures) in order to ensure that effects are acceptable.
- 4.5.3 A detailed Transport Assessment (TA) will accompany the application for development consent, in addition to a Travel Plan, which will identify specific measures required to improve access to and from the airport by sustainable means. As part of this consultation, the **SAETS** provides further information relating to the proposed transport improvements required to be delivered the forecast growth of the airport.

- 4.5.4 Surface access, and road traffic in particular, also plays a central role in the environmental impact of expansion; most notably, with regard to air quality and GHG emissions. Increasing access to the airport by sustainable modes of transport will limit the increase in road traffic and can also therefore contribute to reducing/mitigating the environmental effects of expansion. The **PEIR** makes reference to surface access where required, drawing on transport modelling completed for the **SAETS**.
- 4.5.5 We are proposing two Limits to control changes in mode share as part of GCG, as set out in Table 4.5, one for passenger public transport mode share and the other for staff sustainable mode share.
- 4.5.6 The proposed Limit values for passenger public transport mode share are consistent with those utilised within the surface access modelling, as reported in the **PEIR** and **SAETS**.
- 4.5.7 The analysis we have undertaken for existing staff mode share and the setting of future targets relies on a combination of modelling and existing survey data. The observed data for staff travel by sustainable modes indicates a significant jump between the year 2016 and 2018, rising from 23% to 31% respectively. An increase of this scale would normally need to be reviewed against a number of years' worth of data to ensure it is reflective of a long-term trend. However, the data for 2020 is affected by the Covid 19 pandemic and in fact shows a significant reduction in travel by sustainable modes for staff, falling to 14%. This highlights how staff behaviour has been affected by the pandemic and the challenge of reversing this back to pre-Covid levels.
- 4.5.8 Therefore, at this stage, we are not including a proposed target for staff travel but believe it will be somewhere in the range between 23% to 31% in Phase 1. However, this is subject to further ongoing analysis and feedback from this consultation, including engagement with key stakeholders. Proposed limits will be included in the final GCG strategy to be submitted with the application.

Table 4.5: Proposed GCG Limits for mode share

Proposed Limit	Indicative Forecasts to Inform Limit Values				Proposed Monitoring
	Baseline <sup>1</sup>	Phase 1	Phase 2a	Phase 2b	
Air passenger public transport mode share	38% by public transport	40% by public transport	45% by public transport	45% by public transport	Annually (minimum), utilising existing CAA Departing Passenger Survey (or

<sup>1</sup> Baseline figures based on 18 mppa airport throughput included for illustrative purposes – the actual baseline may change.

					equivalent if CAA data unavailable)
Airport staff sustainable travel mode share (To be confirmed through ongoing analysis and consultation feedback)	23% (2016) 31% (2018) 14% (2020) by sustainable transport	TBC	TBC	TBC	Annually (minimum), methods to be confirmed through development of Travel Plan

4.5.9 As part of these Limits, we are proposing the following definitions:

- a. “air passenger” only refers to non-transfer passengers;
- b. “airport staff” refers to direct employees of the Airport Operator, airlines and ground handling companies working within the airport boundary;
- c. “mode share” is drawn from the mode of transport utilised (for air passenger multi-legged journeys, as defined by the CAA) or most regularly utilised mode for staff;
- d. “public transport” refers to travel by bus, coach, rail and tube (also referenced as metro, subway, tram in the CAA survey);
- e. “sustainable transport” refers to travel by bus, coach, rail, tube (underground), car sharing, walking, cycling and other active travel modes (e-bikes, and potentially e-scooters etc).

4.5.10 Monitoring of air passengers is undertaken on a quarterly basis by the CAA through the departing passenger survey, which includes a number of questions related to passenger travel, and is then weighted/adjusted based on the sample of passengers surveyed. Additional monitoring data is also available from LLAOL regarding car parking and passenger collection/drop-off utilisation, whilst transport operators may also provide additional data.

4.5.11 Monitoring of staff travel will be outlined within the Travel Plan, and the GCG monitoring requirements will be integrated with those of the Travel Plan.

## 5 SUMMARY AND NEXT STEPS

- 5.1.1 Feedback from the 2019 statutory consultation and ongoing stakeholder engagement indicated a strong desire for the airport to be more ambitious with its approach to reducing and mitigating the environmental effects of expansion. One of the ways in which we are therefore amending our proposals is through the development of our GCG Proposals.
- 5.1.2 Through our GCG Proposals, we are proposing a series of clearly specified 'Limits' for the individual environmental effects of the expanding, expanded, and lifetime operation of airport. The Limits are proposed for four environmental topics:
- a. Aircraft Noise;
  - b. Air Quality;
  - c. Greenhouse Gas emissions (GHG emissions); and
  - d. Surface Access.
- 5.1.3 Our GCG Proposals will enshrine these Limits as part of the DCO, to ensure the Airport Operator takes account of the actual environmental effects of the airport's expansion as they manifest over time, rather than predicating all permitted growth up to 32 mppa on the basis of the effects predicted through the EIA process at the time of our application for development consent.
- 5.1.4 This document outlines our emerging approach to Green Controlled Growth and our aim is to further develop the proposals with key stakeholders and in response to feedback from this consultation. Your views and input on this approach are important to us in this respect and we encourage you to share your views on this by responding to this consultation.
- 5.1.5 Equally, your views on the Limits and management processes of GCG are important in ensuring there is confidence in the robustness and independence of the management of environmental effects associated with expansion.
- 5.1.6 Over the coming months we will consider your feedback, continue to engage with stakeholders and we will also complete the assessment of effects across the four environmental topics through the EIA process. This will form the basis of the Limits to be put forward for our GCG Proposals.
- 5.1.7 Our final proposal for GCG will then be submitted as part our application for development consent. A Consultation Report will also form part of our application and this will include how we have had due regard to the feedback from this consultation in the development of our proposals.

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