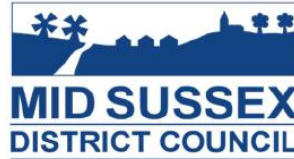




**Horsham
District
Council**



Gatwick Airport Northern Runway Project

Examination Ref: TR020005

The requirement for an Environmentally Managed Growth Framework for the Gatwick Airport Northern Runway DCO.

Deadline 5: 6 June 2024

Crawley Borough Council (GATW-AFP107)
Mid Sussex District Council (20044737)
Reigate and Banstead Borough Council (20044474)
East Sussex County Council (20044514)
Mole Valley District Council (20044578)

Horsham District Council (20044739)
West Sussex County Council (20044715)
Surrey County Council (20044665)
Tandridge District Council (GATW-S5741)

The Requirement for an Environmentally Managed Growth Framework for Gatwick Airport Northern Runway DCO

1. Introduction

- 1.1 The purpose of this submission is to provide further background as to why an Environmentally Managed Growth Framework is required due to the inadequacy of the controls proposed by the Applicant. At Deadline 4, the 9 Joint Local Authorities (JLAs) made a submission setting out why it is necessary, as a matter of principle, for the DCO to include a specific requirement to ensure that the growth of the airport is managed in line with its impacts [REP4-050]. This submission provides further information on why the controls as currently proposed would be ineffective at managing the environmental implications of the Proposed Development.
- 1.2 As stated in REP4-050, an Environmentally Managed Growth Framework (“the Framework”) is required to ensure the mitigations for environmental effects agreed as part of any DCO consent are effective and enforceable and that the environmental impacts of the Proposed Development do not exceed those assessed. Critically, the Framework would include a mechanism setting environmental limits and monitoring thresholds, which the JLAs consider should be agreed during the DCO examination. If the limits are not complied with or are projected to be breached, the Framework would include measures to control the growth and development of the airport until the limits are met.
- 1.3 The JLAs intend to provide a draft outline Framework document at Deadline 6 (26 June 2024) subject to any discussions arising at ISH8 and any information submitted by the Applicant on environmental effects, including the sensitivity testing responses, at Deadline 5.

2. Current Proposed Approach submitted by the Applicant

- 2.1 The Applicant’s current position is that the growth of the airport under the DCO will be subject to controls related to environmental effects in the form of:
- an air noise envelope (Requirements 15 and 16);
 - an annual cap of 386,000 commercial air transport movements (“ATM”) (Requirement 19(1));
 - the Surface Access Commitments (“SACs”) (Requirement 20); and
 - a Carbon Action Plan (“CAP”) (Requirement 21).
- 2.2 Whilst welcomed, the JLAs do not consider these controls to be sufficiently robust. In relation to the noise envelope, for instance, the Applicant only proposes that “GAL shall not be permitted to declare any further capacity for additional air traffic movements from the airport where” there has been an exceedance of the noise envelope during the previous 24 months or the envelope if forecast to be exceeded [APP-177, paragraph 7.3.1].
- 2.3 The SACs, meanwhile, only require the airport operator to identify further actions once modal split targets are missed and potentially allow a significant period of time to pass

where the airport is potentially not complying with its commitments to sustainable and active surface access. Also, the SACs, as currently worded, are largely reactive, in that further actions are only required once the monitoring identifies a modal split target has been missed. Any breach of the modal split targets are proposed to be retrospectively addressed once a breach is recorded. The preferred approach would be a proactive one, where should the monitoring indicate the targets may be missed that measures are put in place, in advance of a potential breach, to prevent one from occurring. Nor is there any incentive in the form of controls on growth until the commitments are met. The same is true in respect of carbon and air quality targets with no constraints to growth as a consequence of missing targets.

- 2.4 The JLAs' key concern is that the proposed Requirements would provide too much flexibility, with only retrospective checks and no certainty of any excessive impacts being effectively controlled. Of particular concern is the lack of sanction against the Applicant should the continued growth of the airport exceed expected environmental parameters without any clear accountability to local authorities or the local community. These potentially negative environmental consequences would not have been assessed in the Environmental Statement and could permit non-policy compliant development to occur, which would be further exacerbated by allowing the airport to continue to grow further, despite potentially missing key environmental targets.

3. Key Principles

- 3.1 The concept would be based on that proposed by the Applicant for the Luton Airport Development Consent Order¹ in its Green Managed Growth (GCG) Framework. The key elements of the legally binding GCG Framework to be secured through the DCO were therefore:
- a. A commitment to link environmental performance to growth at the airport;
 - b. Limits on environmental effects in key areas where the impacts manifestly increase with growth;
 - a. Ongoing monitoring of the actual environmental effects of expansion and operations at the airport in four key areas;
 - b. Independent oversight of environmental effects associated with the operation of the airport; and
 - c. A series of processes to be followed as environmental effects reach thresholds defined below these limits;
- 3.2 The JLAs consider that a similar framework of controls is required for the NRP development and that there should be effective and robust thresholds for monitoring impacts and limits, with appropriate measures to either slow down or prevent further growth of air traffic movements should growth give rise to any anticipated or actual exceedance of such limits.

¹ London Luton Airport Development Consent Order Examination Library references [REP11-011] (for the Green Controlled Growth Explanatory Note) and [REP11-013] (for the Green Controlled Growth Framework). The final draft version of the DCO is [REP11-091].

This would be most effective in controlling air and ground noise, air quality, surface access modal shift and greenhouse gas emissions.

3.3 In order to be effective controls would be defined in terms of threshold level comprising:

- a limit set by reference to the environmental effects assessed and which should not be exceeded (Limit);
- a threshold at which a management plan should be in place to ensure that the Limit cannot be breached (Level 2); and
- a threshold above which extended monitoring and reporting would be required and an initial explanation of the steps that the airport operator will take to avoid an exceedance of the Limit (Level 1).

3.4 If the airport meets its environmental commitments, then no slowing of growth would be required, so the approach proposed would not impose any additional constraints. However, the concept of thresholds and monitoring of impacts in advance of limits being reached is a response to the limitations on how growth can be controlled at the airport, given the international regulations that govern the airlines' rights to slots at the airport, as noted by the Applicant at paragraph 7.2.3 of [APP-177].

4. Slot Allocation

4.1 Gatwick, like Luton Airport, is a coordinated airport for the purpose of allocating slots to the airlines in accordance with the Airports Slot Allocation Regulations 2006. As a coordinated airport, the process of allocating and co-ordinating slots at Gatwick is carried out by an independent third party, Airport Coordination Limited (ACL) in line with regulations established through EU legislation, which has since been transposed into UK law and remains in force following the United Kingdom's departure from the EU. The process is known as 'slot allocation' and is used to allocate and manage limited capacity at an airport, with the aim of maximising its efficient use, whereby 'slots' are allocated to individual aircraft operators giving them permission to land or take-off at a specific time and date. The legal framework also envisages that environmental issues can be factors to be taken into account in determining the acceptability of any increase in capacity being made available.

4.2 The Regulations impose limitations on how existing and new capacity at the airport is declared and allocated in accordance with internationally agreed principles aimed at ensuring a competitive aviation market. Hence, any mechanisms for controlling growth in terms of ATMs and/or passengers using the airport if the agreed environmental limits (i) have been exceeded or (ii) are anticipated to be exceeded, needs to operate in a manner consistent with these Regulations.

4.3 Under this process once slots have been allocated to airlines, the airlines acquire 'grandfather rights' to these slots, provided that they have used them for 80% of the time in the previous summer or winter season (the 'use it or lose it' rules). This means effectively that, once slots have been allocated to airlines and in the event of any exceedance of a limit such as the noise envelope, the airport has no effective means of reducing the level of its operations in terms of ATMs or passengers such as might be required to bring the environmental effects back below the defined limit. At this point, simply not declaring any

additional capacity, as proposed by the Applicant, would be too late to remedy any breach of a limit or control. Hence, ensuring that the airport operates within the assessed environmental impacts will require some element of forward planning and budgeting for growth above defined thresholds during the slot allocation process, as well as measures to effectively stop growth in order to ensure that an identified environmental limit is not exceeded.

- 4.4 Whilst the Applicant has put forward the concept of limiting growth at the airport ultimately through a limit on annual aircraft movements, this is not sufficient to ensure that the environmental impact of a growing airport is managed to ensure that the impacts are not allowed to escalate ahead of the benefits of growth being realised.
- 4.5 Hence the importance of ensuring that the airport can only release new capacity and slots in line with its environmental commitments and targets being met. The JLAs consider this requires a legally binding framework to be in place that links to the mechanism by which slots are allocated to the airlines to ensure that growth at the airport is managed in line with its impacts, recognising that the process will need to align with the overall slot allocation process.
- 4.6 The number of slots is determined by the airport's 'capacity declaration'. A capacity declaration is made twice per year and is used to establish coordination parameters for each of the summer and winter seasons. These coordination parameters set out the maximum capacity available for allocation to aircraft operators considering the functional limitations at the airport such as runway, apron, terminal, airspace, and environmental restrictions, and typically relates to hourly or sub-hourly limits.
- 4.7 To comply with the global process of ensuring that the slots held by airlines are coordinated across all of the airports in their network, capacity declarations are required to be made approximately 7 months in advance of the operations to enable long-term planning of flight schedules by airlines (i.e. a capacity declaration will typically be made in September governing the number of slots available for the following summer period of April-October). A capacity declaration is made by the airport operator, having first consulted the airlines and the air traffic control provider through the airport's Coordination Committee.
- 4.8 It is clearly envisaged that the NRP will increase the airport's capacity by providing new infrastructure, including the relocated northern runway, taxiways, stands and additional terminal infrastructure that will allow the airport to increase its capacity declaration over time. More slots could then be allocated to aircraft operators leading to an increase in the overall number of movements at the airport as the airlines seek to meet passenger demand. The majority of 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 used an allocated slot for at least 80% of the time in the preceding season, it is entitled to the same slot for the following season, although it can operate the slot with a different destination or possibly a different aircraft. Because these grandfather rights are enshrined in law, this means that these slots cannot be taken back by either ACL or the airport operator, and the airline has a legal right to continue operating a flight at the specified time. 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.

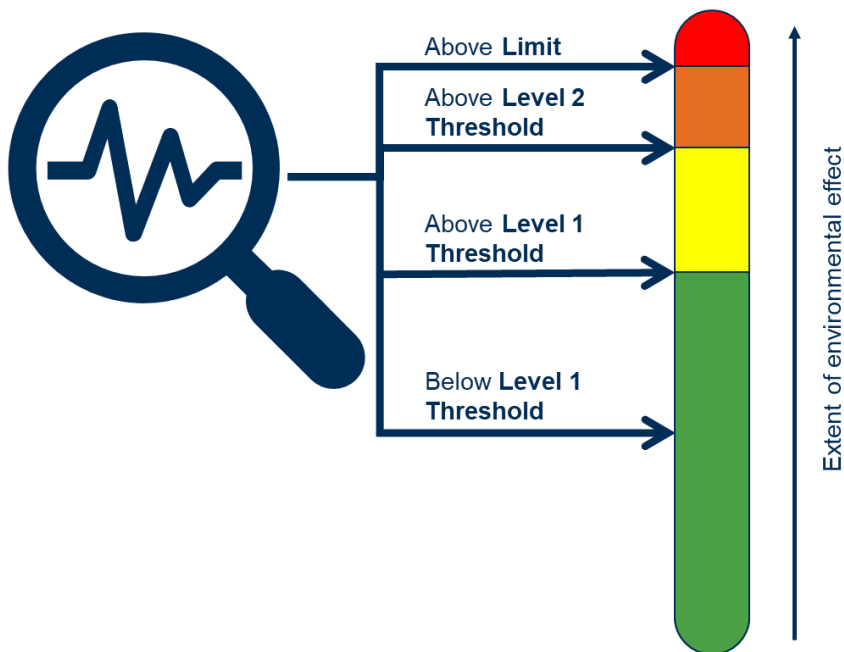
- 4.9 The effect of the slot allocation process is that there is limited scope to reduce the throughput of an airport should a breach of an environmental target or commitment take place. The process of grandfather rights means that such slots can only be taken back from airlines with their agreement through a local rule. Once capacity is declared, the coordinator is required to allocate this to airlines that apply for new slots. Hence, the Applicant's current proposal, which only applies in respect of the noise envelope in any event, does not provide any certainty that a breach could be remedied if the capacity has already been declared as available and slots allocated to airlines.
- 4.10 If, for example, the capacity for full dual runway operations had already been declared but the noise envelope limit is reached before the capacity had been fully taken up, available spare slots could continue to be allocated within the declared capacity and growth continue, potentially exacerbating breaches of the noise envelope limit for a period of 2 years under the control mechanism proposed by the Applicant. The JLAs consider that this provides no effective control or sanction.
- 4.11 Hence, other controls are required to ensure that growth cannot give rise to unacceptable environmental effects. Certain of these controls would need to be introduced before any environmental limit is exceeded or forecast to be exceeded, given the time lag between identifying that intervention is necessary and the timing when any controls on growth could be implemented under the slot allocation process. Such controls might include:
- overall limits on the number of slots that can be allocated in total;
 - reductions in declared capacity so that additional slots cannot be allocated;
 - introduction of local rules, subject to agreement with the airlines, to reduce the number of slots allocated; and
 - in the case of noise, forward looking quota count (QC) budgets to minimise the risk of noise limits being exceeded
- 4.12 In principle, there is no reason why similar brakes on growth should not apply equally to the other environmental areas, identified above, where impacts are intrinsically linked to growth.

5. How would the Framework operate?

- 5.1 The Framework is based on an explicit commitment to link environmental performance to growth at the airport. The Applicant's proposed approach currently only covers the slowing of growth in the event that the noise envelope limit has been breached over a 24 month period or is forecast to be breached in two consecutive Monitoring Reports. Requirement 15(5) of Schedule 2 to the draft DCO [REP3-006] merely refers in general terms to the airport not being "*permitted to declare any further capacity for commercial air transport movements from the airport*" in those circumstances. This would not prevent growth within the capacity already declared.
- 5.2 The concept is illustrated in Figure 1 below. Growth could continue unrestricted where impacts are below a Level 1 Threshold, following which there would be a requirement for enhanced monitoring and increasing levels of control on growth aimed at preventing a Limit being breached. This contrasts with the approach proposed by the Applicant, which proposes no action unless a specific target or commitment has not been met, save for

aircraft noise that relies on the accuracy of forward forecasts and retrospective controls two years in arrears.

Figure 1: Concept of Thresholds and Limits



Source: Luton Airport Green Controlled Growth Explanatory Note

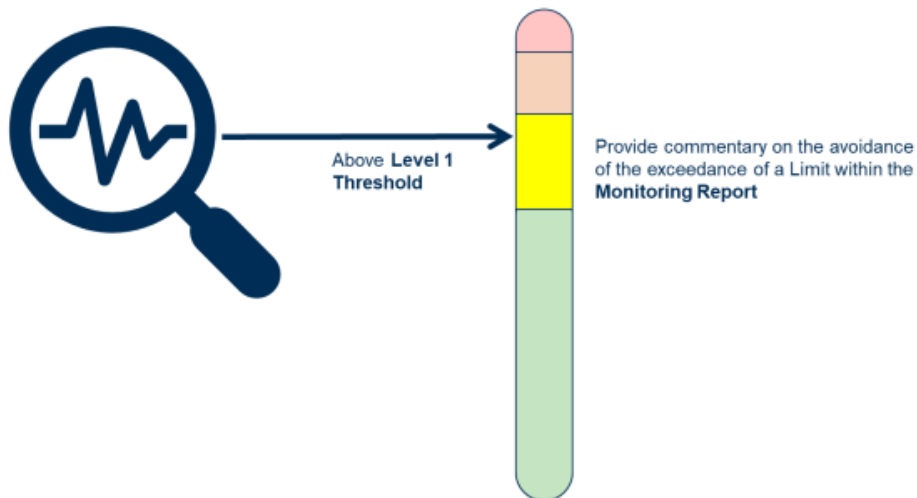
- 5.3 Under the JLAs' proposed Framework approach, the airport operator would be required to continually monitor and regularly report on the extent of the environmental effects associated with the airport in the four areas, namely noise, air quality, greenhouse gases and surface access. Initial proposals for monitoring and ongoing reporting are set out later in the submission with initial indications as to the key metrics in each of the specific topic areas suggested by the JLAs. Monitoring will be triggered in advance of a limit being reached and triggered by appropriate thresholds that determine the appropriate action.
- 5.4 If monitoring were to indicate at any point that a limit was in danger of being breached, then a plan must be produced by the Applicant to explain how that breach will be avoided. The plan would be subject to approval by an independent scrutiny body. If any one of the environmental limits were breached, further growth should be stopped, mitigation will need to be implemented and ultimately, airport growth would be constrained until environmental performance returned to below the defined limits.
- 5.5 It is proposed that an independent Environmental Scrutiny Group (ESG) would oversee this process, comprised of representatives from neighbouring districts and county councils and other specialist interests to be agreed with the Applicant. This group should be supported and advised by four Technical Panels (one for each of the environmental topic areas) comprised of specialist consultants/technical officers to advise on the efficacy of the Airport operator's monitoring and its implications. Terms of Reference would need to be drawn up for the ESG and the Technical Panels. The Applicant should be responsible for funding their work.
- 5.6 Provision should be made for the airport operator to make specified information available to the ESG. Should sanctions be necessary, these would be set out in the Framework which would itself be secured by a Requirement in the DCO.

5.7 The basic principles of how the thresholds and limits would work to manage growth are set out below. If environmental effects remained below all thresholds and limits, the airport would operate as it does today, subject to ongoing monitoring and reporting of environmental effects as required by the management plans.

Level 1 Threshold

5.8 If, when preparing a Monitoring Report, the airport operator identifies that any individual environmental effect is above the relevant Level 1 threshold, the Monitoring Report must include commentary on the avoidance of the exceedance of a limit, including but not limited to any forecasts of future impacts. That commentary could include, for example, if the airport operator considers any interventions or measures that are needed or already planned to be brought forward in the forthcoming year that will mitigate the effects of future growth against the limits, as displayed in Figure 2. It is important to note that it is not envisaged that growth would stop should a Level 1 threshold be breached. However, it may be appropriate to introduce proportionate controls or mitigations, which might include initiatives such as the setting of noise related budgets to control the allocation of slots.

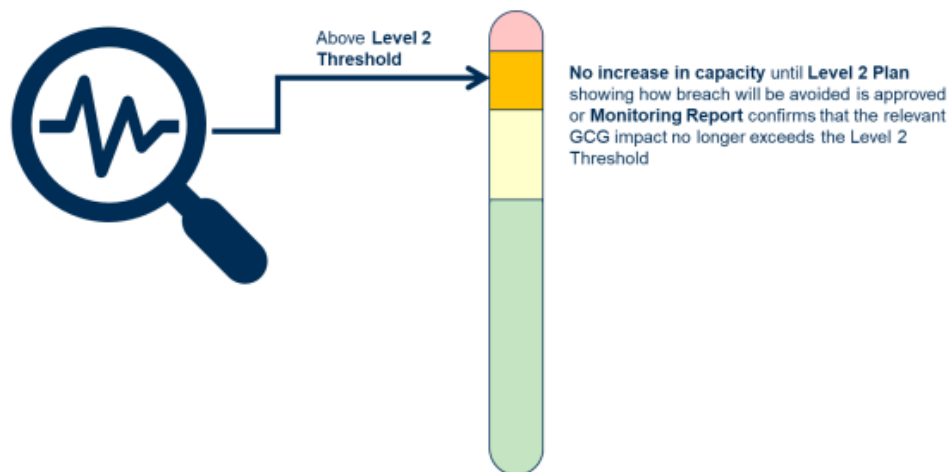
Figure 2: Actions above a Level 1 Threshold



Level 2 Threshold

5.9 Where a Level 2 threshold has been exceeded, unless otherwise agreed by the ESG, the airport operator must ensure that any future airport capacity declaration (being hourly runway or passenger capacity) does not increase from the existing capacity declaration until either (i) the ESG has approved a Level 2 Plan or (ii) a Monitoring Report confirms that the relevant effect no longer exceeds the Level 2 threshold (or is no longer forecast to exceed the threshold). However, within the capacity declaration, new slots will still be permitted to be allocated, as illustrated in Figure 3 below.

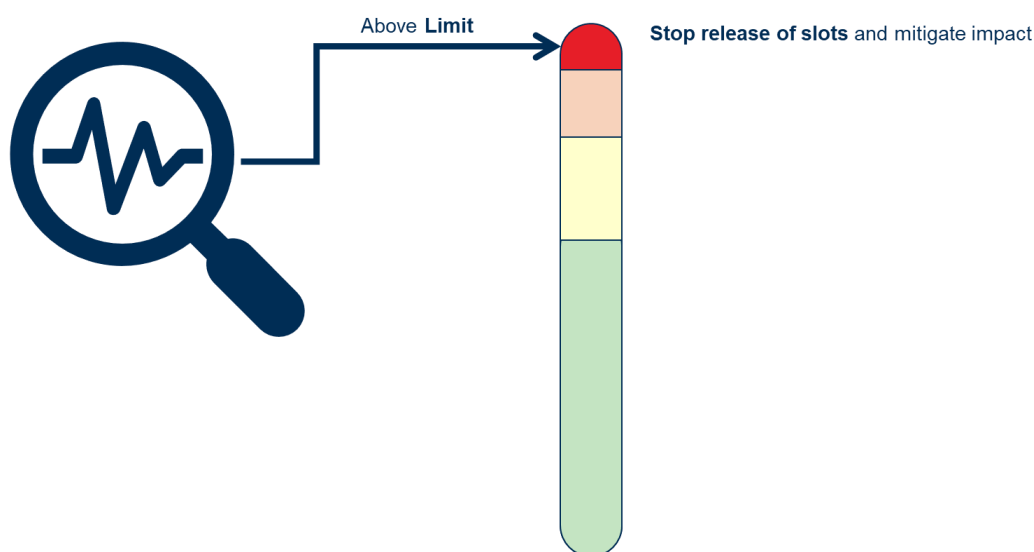
Figure 3. Actions above a Level 2 Threshold



Limits

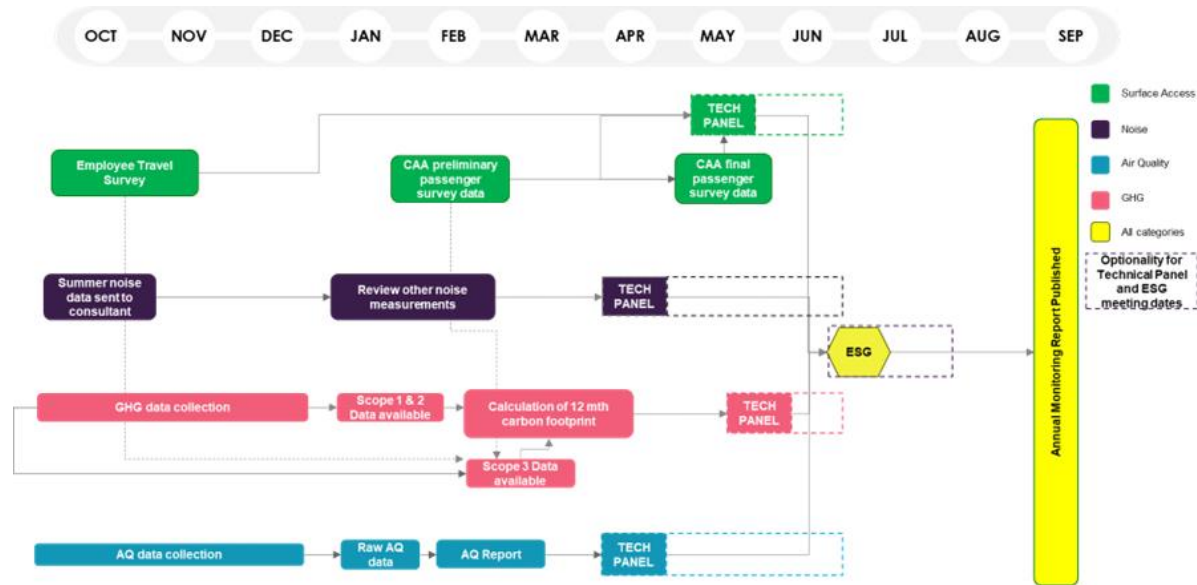
- 5.10 A Mitigation Plan will be required whenever Monitoring Reports show that any relevant environmental effect has breached a limit, unless it is certified by the ESG that a breach is due to circumstances beyond the control of the airport operator. Where more than one limit has been breached, the airport operator may decide to produce separate Mitigation Plans which may be submitted at the same time, or, where the airport operator considers that the breaches are related, to address all of the related breaches of a limit in a single Mitigation Plan. An example of this could be where a breach of the limit for surface access is considered to be linked to the breach of a limit for air quality, and the mitigation that the airport operator would bring forward to reduce non-sustainable mode share would also be effective in improving air quality (through fewer airport related vehicles on the road).
- 5.11 Similarly, where a Level 2 threshold and limit for the same environmental topic have been exceeded and breached respectively (for example, the exceedance of a Level 2 threshold for passenger mode share and a breach of a limit for staff mode share) the production of a combined Mitigation Plan can also discharge the separate requirement to produce a Level 2 Plan for the exceedance of the Level 2 threshold (as set out above), at the discretion of the airport operator. This is to ensure the efficiency of the process, and in recognition of the fact that both plans would likely contain similar types of mitigation measures in this situation.
- 5.12 When the breach of a limit has occurred, unless otherwise agreed by the ESG, the airport operator will not increase declared hourly runway capacity above the existing capacity declaration and nor should any additional slots be allocated (above the existing number of allocated slots in the previous calendar year or the two equivalent scheduling seasons - summer and winter) until monitoring confirms the relevant environmental effect has fallen below the relevant limit.

Figure 4: Actions above a Limit



- 5.13 A Mitigation Plan will need to set out the airport operator’s plan for bringing the environmental effect(s) back below the limit, within as short a timeframe as is considered reasonably practicable. The Mitigation Plan must include analysis to demonstrate that this will be the case and include a programme for the implementation of any required mitigation, and the mitigation will subsequently need to be delivered according to these timescales. If, in the reasonable opinion of ESG (as informed by the Technical Panels), the Mitigation Plan is not likely to satisfactorily address a breach of the Limit, the ESG may request reasonable modifications to be made to the airport operator’s plans and withhold approval until such time as they are satisfied with the revised proposals. However, this approval being withheld should not prevent the operator from implementing any mitigation they deem to be appropriate in the interests of reducing environmental effects as quickly as possible.
- 5.14 Mitigation must be implemented by the airport operator in accordance with the approved Mitigation Plan. Where a Mitigation Plan put forward by the airport operator has not been effective within the timescales set out within the approval Mitigation Plan, the airport operator must prepare and submit a new Mitigation Plan.
- 5.15 Figure 5 below shows how the timescales for the process might work, taking into account the timescales over which monitoring information is likely to become available, including the timescale for the production of noise contours following the end of the relevant 92 day summer period and the availability of the passenger mode share data from the Civil Aviation Authority passenger surveys. The other monitoring activities are indicative and based on what was considered feasible at Luton Airport, which is also a coordinated airport. The key timescale is aimed at ensuring that any mitigation plan that may require adjustments to the airport’s declared capacity or additional controls (such as QC budgets or limits on the total number of slots that can be allocated) are known before the capacity declaration for the summer of the next year in September each year,

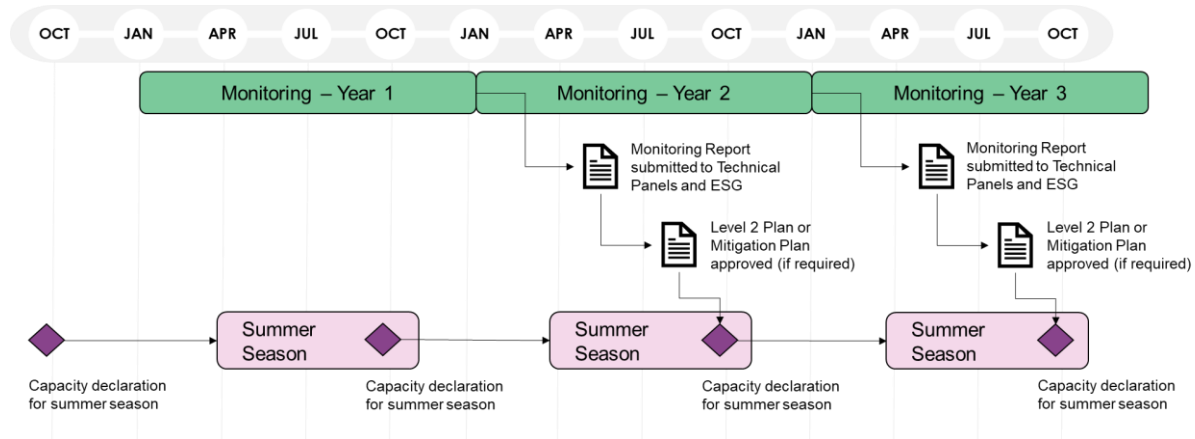
Figure 5: Timeline for Monitoring to meet Capacity Declaration Deadline in September each year



Source: Luton Airport Green Controlled Growth Explanatory Note

5.16 From Figure 5 and Figure 6 below, it is evident that there is a two year time lag between a breach occurring and when any action could, in practice, be implemented to limit or even reduce the number of slots allocated. Simply ceasing to declare any more capacity at that point is too late as substantial growth could have arisen in the meantime.

Figure 6: Relationship between Monitoring and the Capacity Declaration Process



Source: Luton Airport Green Controlled Growth Explanatory Note

5.17 This is particularly so if, as the Applicant claims, the take up of new capacity following the opening of the NRP is very rapid. Although the JLAs do not currently accept the Applicant’s forecasts of the rate of build-up of passenger and aircraft movement demand, as used to underpin the current environmental assessment (not least as some key facilities necessary to support the increase in capacity such as Charlie Box and Pier 7 are not due to be available until 2035 at the earliest), the Forecast Databook [APP-075, Table 10.1-2] shows the Applicant to believe that some 95% of the new slots (additional movements) will be taken up by 2032, some 3 years after the opening of the NRP. Nearly half of the additional capacity is projected by the Applicant to be taken up in the first year of operation. In the light of this, it is essential that detailed monitoring commences from the first year of operation of the NRP so that, if there is a prospect that any threshold or limit could be exceeded or is projected to be exceeded, action can be taken in 2031. Otherwise, any action to limit slot allocation or the declaration of capacity would be too late to have any effect in preventing a breach.

6. Limits and Thresholds - the four topic areas

6.1 The JLAs consider that the Framework should include limits and thresholds that apply to four key environmental topics:

- a. aviation noise;
- b. air quality;
- c. greenhouse gas emissions; and
- d. surface access.

6.2 This submission sets out below some key considerations in relation to what should be included within the ambit of the limits and thresholds but does, not at this stage, set out the Framework in full pending further clarification from the Applicant of the environmental effects.

7 Aviation Noise

7.1 The noise envelope provides improved, yet still limited, control over the activities at the airport and is unlikely to be sufficient to ensure that nuisance that is avoidable (from all airport operations) does not occur. The JLAs recognise this and are seeking to establish good noise controls in the DCO. In order for the Framework to be effective, there is a need to ensure that the correct criteria are set to manage and limit the airport and its impact. The right things need to be measured and with noise, due to the way the effects are experienced at different times of the day, year, location and the different pathways and impacts / outcomes, it is necessary to use a range of criteria so that one impact is not inadvertently overlooked. In order to inform discussion at ISH8, a more detailed appendix covering the appropriate controls on aviation noise is attached.

7.2 The JLAs consider that the following principles must be amongst those that shape the noise envelope, the setting of appropriate limits and thresholds and the process of governance.

- The noise envelope must be responsive so that action can be taken in a timely manner to prevent breaches.
- The noise envelope should encourage a management system to assure compliance rather than simply report performance.
- The use of quieter fleet and operational practices must be incentivised.
- The delivery of the noise insulation scheme must be incentivised.
- The noise envelope must integrate with the noise insulation scheme and planning policies.
- Appropriate noise metrics must be incorporated into the controls reflecting the effects.
- Where effects are found to be represented by new metrics the noise envelope needs to have the ability to be updated to incorporate these as controls.
- Control over the airport should be on a local basis with appropriate input from the relevant central government bodies.
- The ESG and the Technical Panels need to have appropriate powers for scrutiny and audit of processes and data and have the ability to recover costs associated with all work.
- The roles of all regulators need to be defined and recognised to provide an effective enforcement model.
- An appropriate appeals mechanism must be established.
- Information by the Applicant should be produced without delay and published in a manner and form as may be specified by the ESG.

- 7.3 In addition to air noise, it is also important to highlight that the JLAs have concern over the management of ground noise and consider that a ground noise management plan subject to similar scrutiny is required.
- 7.4 There are a number of other key principles that should be adhered to, namely that the noise envelope should be based on:
- Realistic forecasts of future demand so as to ensure that noise limits are effective in controlling the impacts in an appropriately phased manner, with shorter time intervals than the initial 9 years proposed by the Applicant for the Stage 1 noise envelope;
 - The use of an appropriate fleet mix to ensure that the airport is incentivised to encourage airlines to use quieter aircraft and deliver benefits to the community;
 - Sharing of the benefits of new generation aircraft with the community, in line with noise policy.
- 7.5 Whilst the JLAs do not consider that it is appropriate to suggest actual limits for the noise envelope at this time, they do consider that any noise envelope needs to take into consideration a variety of different metrics, against which appropriate action thresholds and absolute limits can be set in order to ensure that environmental performance is assured rather than merely controlled after the event.
- 7.6 For the reasons set out above, this requires the definition of thresholds at which additional monitoring and/or action needs to be taken to ensure that limits are not breached. In the case of noise, it is proposed to have two thresholds, one set at 80% and the other at 90% of the limit value. The purpose of the thresholds is to ensure appropriate and proportionate management action is taken at an appropriate time to prevent the limit value from being exceeded. An inherent part of such a managed approach would be the use of forward-looking QC budgets for day and night-time linked to the slot allocation process to manage the allocation of slots in line with the anticipated noise impact.
- 7.7 It is envisaged that the QC system along with noise contour forecasting (and actuals verification) would become embedded within the operational processes. In order to avoid an exceedance of a limit due to the early release of slots at the point when dual runway operations commence, it may be appropriate to:
- Have an initial delay of slot allocation by two years to allow analyses of the data to inform what may be reasonably be released so as not to exceed a limit;
 - Limit the total number of slots that can be allocated;
 - Consider linking slot release to the delivery of additional noise insulation
 - Condition the use of slots so that they must be utilised by aircraft with appropriate QC performance; and
 - Put in place forward looking QC budgets consistent with noise contour predictions and not exceeding these.
- 7.8 In addition to the metrics proposed by the Applicant as part of the noise envelope, the JLAs consider that the proposed contours be supplemented by additional limits to the following contours in order to afford adequate protection to those who are worst affected:

- i. 60 dB LA_{eq 16h};
- ii. 55 dB LA_{eq 8h};
- iii. The nightly average, during the 92-day summer season, of the one additional aircraft noise induced awakening per night;
- iv. a daytime event based N₆₅ (N above) metric

7.9 The JLAs also consider that there should be additional controls on the use of Tactical Offload Route 9 (Wizad).

8 Air Quality

- 8.1 The airport is a significant source of pollutant exposure to residents and the Project has the potential to increase the exposure of residents further. The air quality assessment for the Project predicts that there will not be likely significant effects nor exceedances of the air quality objective values. Nonetheless, it is proposed that the Framework would monitor and compare predicted pollutant concentrations against actual monitored pollutant concentrations. The Framework would provide a series of thresholds and limits that would be triggered should pollutant concentrations be higher than predicted to protect local residents.
- 8.2 The air quality pollutants proposed to be included in the Framework are particulates (PM₁₀, PM_{2.5}), nitrogen dioxide (NO₂), and any other pollutant (current or in the future) that has a UK limit value and or objective value. The air quality objective values as used in the air quality assessment of the NRP are proposed to be used within this Framework.
- 8.3 The Framework should consider locations affected by not just road traffic associated with the Airport, but also all other sources of emissions associated with the Airport and should be based on a review of affected road networks (ARN) for each scenario and the monitoring included in the Environmental Statement.
- 8.4 It is proposed that, as the Applicant has created an Air Quality Action Plan (AQAP) to collate air quality mitigation measures, the AQAP is integrated into this Framework. This is proposed as additional air quality measures in the AQAP would need to be introduced and implemented should elevated pollutant concentrations be identified through the Framework review.
- 8.5 In principle, it is considered that the following thresholds be adopted along with the required monitoring or mitigation actions:
- **Level 1 Threshold:** Measured / modelled concentration at 80 % of relevant UK limit or objective value. **Level 1 Action:** Airport to review embedded mitigation measures to ensure they are working as intended, determine the current airport contribution and if the airport is causing the increase in pollution.
 - **Level 2 Threshold:** Measured / modelled concentration at 90 % of relevant UK limit or objective value². **Level 2 Action:** Update the review of Airport pollutant contributions. If

² This level has been selected as at concentrations within 10% of an objective may be described as being close to an objective (para 6.15 - Institute of Air Quality Management Guidance on Planning for Air Quality, (Jan, 2017)).

the airport is the source of the elevated pollution (in whole or part) then the airport is to produce a series of agreed additional mitigation measures from the air quality action plan to ensure on going compliance with the relevant standard(s) within 6 months of the Level 2 value being breached. This may include the Airport withholding any further capacity, but new slots that have not been allocated could still be allocated. The reduction in concentrations delivered by the additional mitigation measures is to be proportionate the airport's contribution to the elevated concentrations. Annual monitoring results would be needed to demonstrate the effectiveness of any additional mitigation measures.

- **Air Quality Limit:** At or above UK Limit or objective value. **Limit Action:** The actions set out in Level 2 are to be repeated and further additional mitigation identified beyond those identified at Level 2 and these measures be implemented. No additional slots can be allocated until an agreed set of measures to reduce pollution are in place and monitoring demonstrates improved air quality. Annual monitoring results would be needed to demonstrate the effectiveness of any further mitigation.

8.6 As the Framework for air quality is linked to air quality levels that are measured over annual durations, the review cycle for the Framework is to be annual. Additionally, every 5 years a broader review of air quality monitoring data should be undertaken to identify if additional monitoring sites should be considered annually. A clear set of sifting criteria should be agreed to identify the core set of monitoring sites that would be included in the Framework review annually and which monitoring sites would be included in the wider pool of air quality monitoring that would be considered in the 5 yearly review.

8.7 Provision should also be included within the Framework to incorporate any new air quality thresholds which may change over time. It is proposed that if new thresholds are introduced that a review of which new monitoring sites should be included in the Framework should be undertaken. This should be completed within 6 months of any new threshold (e.g. air quality objective value).

9 Greenhouse Gas (GHG) Emissions

9.1 In line with Government policy, the Applicant has committed, under the Carbon Action Plan (CAP) [APP-091] to achieving Net Zero for GHG emissions under their control (Scope 1 and 2) by 2030. Whilst, in line with policy, Scope 3 aviation emissions are excluded from direct control by the Applicant, under the CAP, the Applicant has committed to actively supporting the reduction of Scope 3 emissions from its own operations, including water consumption and treatment and waste disposal and treatment. These would form the basis for limits to be set within the Framework.

9.2 In addition, while construction emissions are also not included in the Framework, as they do not occur in proportion to the airport's growth, mitigations and controls associated with construction are already secured in the Environmental Statement (ES) and the Code of Construction Practice (CoCP) [APP4-007].

9.3 It is therefore, proposed that the Framework should manage the ongoing environmental effects of GHG emissions in two key areas:

- Airport buildings and ground operations (ABAGO); and
- Surface access transportation.

9.4 In line with the GHG Protocol, Table 1 below sets out the proposed Scope of GHG emissions and sources that are proposed to be controlled via the Gatwick EMG Framework.

Table 1. Scope of Emissions to be controlled.

GHG Emissions Scope	Activity	GHG Emissions Source
1	ABAGO	a. Emissions from fuel used for buildings, assets, other infrastructure, landside and airside owned and third-party vehicles and equipment (excluding staff travel to and from work, which is reported under surface access).
2		b. Emissions from electricity use for buildings, assets, other infrastructure, landside and airside owned and third-party vehicles and equipment (excluding staff travel to and from work, which is reported under surface access).
3	ABAGO	a. Transmission and distribution losses, refrigerant losses, waste and water services.
	Surface Access Transport	a. Emissions from the transportation of passengers to/from the Airport; and b. Emissions from the transportation of staff to/from the Airport

9.5 It is proposed that where any Scope 3 emissions are incorporated into the Framework, they should be expressed as a net limit, inclusive of any offsetting that the airport operator may choose to implement. This will allow the airport operator to take steps to ensure that carbon emissions, net of any offsetting, remain within the Framework GCG Limit even where issues beyond their control have affected their ability to limit gross GHG emissions.

9.6 In terms of setting limits, for ABAGO Scope 1 and 2 emissions, the Applicant has committed to achieving net zero by 2030. In addition, in line with Jet Zero, the Application has committed to zero emissions by 2040 for Scope 1 and 2 emissions. To achieve this, it is proposed that a trajectory will need to be presented to reduce reliance on removals by 2040. In the absence of any data or timed commitments, a linear reduction in emissions across the following commitments would seem appropriate as the limit:

- Net zero by 2030: A linear reduction to achieve net zero in Scope 1, 2, and 3 emissions is necessary from the Applicant's DCO commencement in 2029 through to 2030. Offsets and removals in line with the requirements stipulated in Section d) are permissible for the elimination of residual emissions across all emission Scopes; and
- Zero emissions by 2040: A linear decrease in Scope 1 and 2 emissions to reach absolute zero is mandated from 2030 to 2040. Offsets and removals⁵ are permitted solely for the purpose of eliminating residual emissions within Scope 3 from 2040 onwards.

For Surface Access emissions, these emissions are presented in Chapter 16 of the Environmental Statement [APP-041] as a 'total' rather than net effect of the Proposed Development. Consequently, based on the alignment of this trajectory with the UK net zero policy, this trajectory of emissions would constitute a reasonable 'limit' on emissions over the Proposed Development's lifespan.

9.7 In line with the thresholds used in Luton Airport Green Controlled Growth, it is proposed that the Applicant implements two thresholds inclusive of:

- Level 1 Threshold: 90% of the 'Limit' emissions trajectory; and

- Level 2 Threshold: 95% of the 'Limit' trajectory.

10 Surface Access

- 10.1 Surface access refers to the trips made by passengers and staff 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, walking and cycling. It does not include trips by aircraft (e.g. transfer passengers). 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. Compliance with the air quality and surface access GHG Limits is therefore closely linked to how successful the uptake of sustainable modes of transport is.
- 10.2 The surface access limits are also only one part of the overall approach to assessing, monitoring, managing and mitigating surface access impacts as a result of the expansion of the airport as set out in the Surface Access Commitments **[REP3-029]**. These contain details, in Section 5, of measures and interventions that the Applicant has the ability to use to achieve its committed mode share outcomes set out above. These range from those which the Applicant has direct control over (for example, car park pricing and forecourt charging to deter non-sustainable travel), to others which necessarily rely on some degree of collaboration with third parties (for example, new bus and coach routes or alterations to rail services)
- 10.3 The SAC is proposed to be secured under Requirement 20 of the DCO, providing an additional level of assurance and security to stakeholders as to the Applicant's commitment to its specified surface access outcomes. It is nonetheless considered that surface access should form part of the Framework to ensure that, as a fallback, growth at the airport can be managed should the surface access commitments not deliver the change in passenger and staff behaviour sufficient to meet the mode share targets.
- 10.4 The Joint Authorities have previously highlighted the inadequacies of the SACs (**[REP1-097]** and **[REP1-068]**) as they do not believe that the SAC document is sufficient to ensure that the outcomes which have been identified in the Environmental Statement and Transport Assessment are delivered and that growth at the airport is restricted to ensure that outcomes are not worse than identified.
- 10.5 Fundamental to concerns is the fact that the SACs only require the airport operator to identify further actions retrospectively, once monitoring shows the targets have been missed and allows a significant period of time to pass where the airport, is potentially, not complying with its commitments to sustainable surface access. . Nor is there any incentive in the form of controls on growth until the commitments are met.
- 10.6 Concern has been expressed that it will be a challenge for GAL to ensure the commitments are met and it is therefore unclear whether the specific measures proposed are sufficient. Specific concerns have been raised in relation to individual Surface Access Commitments in the Surrey and West Sussex LIRs (REP1-097 and REP1-068, respectively).
- 10.7 Under current proposals, significant discussion would still be required in relation to monitoring and intervention to address how matters would be dealt with if targets are not met. As currently drafted, it is possible for two successive Annual Monitoring Reports to continue to show that the mode share commitments have not been met and GAL is only

required to prepare a further action plan. It is not evident what would happen should this plan and a third AMR show that the mode share commitments have not been met. Three AMR periods is clearly too long to resolve any failings; growth should be curtailed until the SAC are met.

- 10.8 It is proposed that the Framework should include two surface access limits to control changes in mode share. The two mode share limits include maximum percentage mode shares for 'non-sustainable' passenger travel and 'non-sustainable' staff travel not to be exceeded. These limits therefore function to promote the uptake of 'sustainable' travel, including public transport and active travel and are consistent with the mode shares for passengers and staff utilised within the surface access modelling, further details of which are reported in the Transport Assessment [REP3-058].
- 10.9 The detailed definitions of 'sustainable travel' and 'non-sustainable travel' in the context of passenger and staff travel are provided in para 4.2.2 of the Environmental Statement Appendix 5.4.1: Surface Access Commitments [REP3-029]:
- "Air passengers" are those travelling to or from the airport using the surface access networks. They do not include passengers transferring between flights within the Airport;
 - "Airport staff" are those who are employed directly by the Applicant or any other employer at Gatwick and who class the buildings and operational areas of the airport as their main place of work (in accordance with employer and employee travel surveys) within the Airport boundary;
 - "Sustainable travel" includes:
 - A "public transport" journey is one where the majority of the journey (measured by proportion of overall travel time) is made by rail, local bus, regional/express bus or coach or any other commercially operated shared transport services available for public use;
 - An "active travel" journey is one where the majority of the journey is made on foot or by cycle modes;
 - A "shared travel" journey is one where the majority of the journey is made by a private car or other road vehicle containing more than one staff member (including the driver), and all of those staff members are travelling to or from the Airport. This includes group travel solely in relation to a journey to work at the Airport and car-sharing for more than one Airport employee. It does not include any journeys resulting in employees dropped off or picked up "Non-sustainable travel" is not defined in the Surface Access Commitments but includes travel by modes other than those above, such as car and taxi and is irrespective of the tail-pipe emissions of those vehicle.
- 10.10 Monitoring arrangements will be important. The JLAs are keen to ensure the thresholds and limit will be based on analysis of the full underlying Civil Aviation Authority dataset with appropriate adjustments to take account of 'main mode', rather than the currently reported summary of 'main mode'. This will ensure that multi-legged journeys (e.g. driving to an off-site car park, with the final leg undertaken by shuttle bus) will be accurately reflected. Monitoring of air passengers and staff travel is outlined in Surface Access Commitment 16. However, the Framework will require a monitoring report to be created every six months

(winter/summer seasons) and reflect travel patterns for the preceding 12 months and will contain, per Surface Access Commitment 16:

- The data collected in the preceding year;
- Parking capacity on-airport
- Outcomes from the staff travel survey (every other year);
- The number and mode share of journeys made by air passengers;
- The number and mode share of journeys made by airport staff;
- The measures currently in use, including the committed interventions and any additional measures which the Applicant has chosen to implement to achieve its mode share commitments;
- Any identified trends from the latest and previous data;
- The anticipated future trajectory of mode shares and progress towards achieving the committed mode shares; and
- Proposals for introducing, changing or withdrawing certain measures or interventions.

10.11 The first monitoring report will need to be produced six months after the commencement of dual runway operations to provide confidence that the extra capacity generated by NRP can be converted to Declared Capacity.

11. Securing the Framework

11.1 As mentioned in paragraph 1.3, the JLAs intend to provide a draft outline Framework document at Deadline 6. The JLAs consider a finalised outline Framework could be a certified document and that it could be secured by a Requirement which restricted commencement of any part of the authorised development until a detailed Framework, in accordance with the outline, has been submitted to and approved in writing by Crawley Borough Council or the Secretary of State, following consultation with relevant local authorities.

Air Noise Appendix

Introduction

1. The JLAs have highlighted their concerns and dissatisfaction about how the existing noise envelope proposal was formulated in the Local Impact Report for Surrey [[REP1-097](#)], West Sussex [[REP1-068](#)] and East Sussex [[REP1-070](#)].
2. This document seeks to provide a balanced approach that takes into account the needs of the airport operator, the airport users and the local communities that are affected by noise or are concerned about the effects of noise.
3. The views stated herein take into account comments by the community groups and the airport operator during the consultation period prior to submission of the application. Unfortunately, the local authorities were not party to conversations with the businesses that use the airport and would have welcomed the opportunity to have a better understanding of their concerns, views and invaluable experience gained in operational requirements generally as well as issues with operating out of Gatwick Airport.
4. Underlying our proposal is the need to ensure that the correct criteria are set to manage and limit the airport and its impact. The right things need to be measured and with noise, due to the way the effects are experienced at different times of the day, year, location and the different pathways and impacts / outcomes, it is necessary to use a range of criteria so that one impact is not inadvertently overlooked.
5. The concern of the JLAs with the Applicant's scheme is that at the point when the five year forecast contours are available, which would be some time after preparation of the 92 day contours for the current year that ends in mid-September, this would be too late to impact on the declaration of capacity for the following summer, which has to be agreed with the airport's Coordination Committee ahead of the declaration of capacity during September each year. Hence, if the forecast or actual contours revealed an actual or perceived exceedance of the Noise Envelope Limit, there would be a lag of a further year before it could influence a capacity declaration. This means that, to the extent that there is spare capacity available within the declaration, it would be possible for the slot coordinator to allocate additional slots to airlines so resulting in an even greater exceedance in the area exposed to noise. This is not acceptable and indicates strongly why a managed growth approach is needed to ensure that action is taken before any exceedance arises. This approach must take into account the slot allocation process and the time lag before any change to the declaration or, indeed, action to reduce the volume of air traffic to ensure compliance with the Limits could be taken.
6. The scope of the noise envelope discussed below relates to air noise. However, we highlight that the JLAs have concern over the management of ground noise and consider that a ground noise management plan subject to similar scrutiny is required.
7. In addition to the structure proposed earlier in the paper for topic panels and Environmental Scrutiny Group, the JLAs consider that the following principles must be amongst those that shape the noise envelope.

- The noise envelope must be responsive so that action can be taken in a timely manner to prevent breaches.
- The noise envelope should encourage a management system to assure compliance rather than simply to report performance.
- The use of quieter fleet and operational practices must be incentivised.
- The delivery of the noise insulation scheme must be incentivised.
- Capacity is to be released as environmental benefits are realised so the benefit of new technology is shared with the local community. (This implies the release of capacity once environmental targets have been achieved).
- The noise envelope must integrate with noise insulation scheme and planning policies.
- Appropriate noise metrics must be incorporated into the controls reflecting the effects.
- Where effects are found to be represented by new metrics then the noise envelope needs to have the ability to be updated to incorporate these as controls.
- Public concerns must be addressed by a public forum for scrutiny and assessment of the Applicant's progress in meeting the targets and legal obligations, with advice and reports provided by independent technical panels with all activity funded by the Applicant.
- Local democratic accountability is embedded within any decision making process.
- Control over the airport should be on a local basis with appropriate input from the relevant central government bodies.
- The ESG and the technical panels need to have appropriate powers for scrutiny and audit of processes and data and have the ability to recover costs associated with all work.
- The roles of all regulators need to be defined and recognised to provide an effective enforcement model.
- The formal structures need to have the ability, as a DCO power, to make investigations, require information, require action by the Applicant (including the adherence to specific controls, the taking of action to mitigate effects, correct breaches or other action as may be reasonable in the circumstance), the ability to vary the terms of the noise envelope and noise insulation scheme in light of changing circumstance, the ability to determine changes to operation that may not require changes to planning permission but that may result in increases in capacity.

- An appropriate appeals mechanism must be established.
- Information by the Applicant should be produced without delay and published in a manner and form as may be specified by the Environmental Scrutiny Group.

Existing Regulation of Airports

8. The noise envelope provides improved, yet still limited, control over the activities at the airport and is unlikely to be sufficient of itself to ensure that nuisance does not occur that is avoidable (from all airport operations). The JLA recognise this and are seeking to establish good noise controls in the DCO. The paragraphs below provide some additional context to this position and why the JLAs are recommending stronger controls.
9. As long ago as 2003 it was identified that new legislation was required to strengthen and clarify noise control powers both at larger commercial airports and smaller aerodromes. Amongst the measures it was proposed to introduce:

“new powers to extend these [noise] controls so that they can relate to overall use of the airport, thereby enabling clearer environmental objectives to be set. At present, overall contour or similar controls may only be set voluntarily or through the planning system, which means that generally they must be directly related to a specific development, such as in recent years for the Manchester second runway and the Heathrow fifth terminal.”^[3]

10. Unfortunately, in the 21 years that has elapsed there have been no new substantive noise control provisions.
11. The Environmental Noise (England) Regulations 2006 make provision for plans to reduce noise. This has been cited by the applicant. For aviation noise it relies on propositions by the airport operator for noise reduction. The Regulations have not incentivised the take up of quieter fleet, sharing benefit with local communities or improvement in control.
12. Reference has been made by the Applicant about the importance of being a designated aerodrome and the controls upon them as a result. The UK Airspace Policy: A Framework for Balanced Decisions on the Design and Use of Airspace^[4] notes that the main controls at **designated airports** are:
 - Night flights regime
 - Noise Preferential Routes
 - Operational Procedure such as departure noise limits and requirements on continuous climb and descent
13. It goes on to highlight that the noise operating procedures set by Government at the designated airports:

*“have not changed for many years **and now represent minimum industry practice.** Therefore, they do not necessarily reflect the latest developments in noise management*

or the measures that an airport could put in place if they were not bound by the Government's controls."

14. This implies that contrary to Gatwick's comments at the Issue Specific Hearing 5, [EV10-001 and EV10-02], as a designated airport they have some of the weakest controls in the UK but with the greatest potential for adverse impacts on local communities. The JLAs clearly disagree with the proposition that airports should not be bound by appropriate controls. Crafted correctly, appropriate controls can incentivise improved environmental performance and competitive advantage.
15. Therefore, the planning system appears to be driving improvement but even in the Civil Aviation CAP 1129 on Noise Envelopes^[5] it states that *"The current planning system offers limited flexibility in the means available to implement a noise envelope. A change in primary or secondary legislation may be required for noise envelopes to be implemented effectively and enforceable by law."* This clearly demonstrates the difficulty faced in managing noise and why it is necessary to have a robust, enforceable, appropriately funded, adaptable noise envelope with strong governance and suitable powers to deliver against any Environmentally Managed Growth programme.

The Interdependence of the Noise Controls and Airport Forecasting.

16. The JLAs seek to highlight to the Examining Authority the strong relationship between the operational forecasts (including the aircraft movement throughput with and without project and the fleet mix) with the assessments of noise impacts and the setting of noise controls.
17. As the Applicant is yet to satisfy the JLAs in relation to this matter, any consideration of noise at this time can only be provisional subject to agreement of reasonable forecast figures. This is due to the uncertainty and lack of robustness around forecast demand, capacity and fleet mix which in turn influences what effects may occur due to noise in the community.
18. For example, we understand that the more recent top down demand forecasts produced by the Applicant [REP1-052] suggest that the realistic number of passengers in 2032 would be around 9.3% less than as originally stated by the Applicant and York Aviation for the JLAs believe these forecasts to be more robust [REP3-123]). With fewer passengers there would be fewer air traffic movements and, as a consequence, the area affected by noise would also shrink. The JLA's calculations suggest that the reductions in area are significant and estimates them to be:

For the equivalent slow transition fleet (2032)

- Daytime limit of 146.7 km² reduces to 135.2 km²
- Night-time limit of 157.4 km² reduces to 145.1 km²

For the equivalent central case (2032) contour areas:

- Daytime area of 125.1 km² reduces to 115.3 km²
- Night-time area of 136.2 km² reduces to 125.5 km²

19. The Applicant shows the origin of the derivation of the proposed period 1 noise envelope noise Limits in Diagram 14.9.1 of ES Chapter 14 [APP-039] which is informed by the

operational forecast information that the JLAs dispute. Diagram 14.9.1 shows the noise contour area for the 51 LAeq (16h) increasing above the 2019 base line of 136 km² to a maximum area of 146.7 km² in 2032. This is the value that the Applicant has proposed as the Limit for the noise envelope. It is incorporated into the Draft Development Consent Order – Version 6 [REP3-006]. This area is higher than the baseline 2019 level.

20. The JLAs are concerned that the expression of the area under the noise contour specified in Requirement 16 of the DCO is larger than the area contours for day and night stated in the Noise Envelope Document. If only the limit in the DCO Requirement is binding, the limits in the Noise Envelope Document provide no control at all. Failure to achieve the Limits set out in the Noise Envelope Document for different noise envelope periods will not be subject to any sanction or offence against the DCO and the Applicant may effectively disregard the Noise Envelope Document and the limits therein. It would not, in practice, provide any constraint to growth or the noise level at the airport nor any certainty to the local communities. The JLAs consider that any future noise period limits need to be established through an appropriate process and made enforceable as a breach of the DCO. This requires them to be set in the first instance at a realistic level and this can only be completed once the issues around forecasting and fleet mix have been resolved

21. It is worth clarifying before proceeding further that in principle the JLAs:

- do not agree that the noise level should increase above the baseline and that Government policy on sharing of the benefit with the local communities should see a reduction in noise as quieter fleet is introduced and that, for the purposes of the Noise Policy Statement for England and aviation noise policy framework, capacity should not be made available until such time as the noise is at least no worse than the 2019 baseline levels and realistically considerably below them.
- consider that the proposed rate of transition in the slow fleet transition case, used as the basis of current predictions, is out of date and requires refreshing to improve the forecast of not only the pace of transition but also what the noise characteristics of the final fleet are likely to be. The noise modelling work will need to be updated accordingly.
- that the Applicant's central case, quieter fleet, is considered the most realistic transition and fleet mix upon which to base limits within a noise envelope but that given the time elapsed since the previous study a new generation of quieter fleet mix should be considered, at least as a sensitivity test. At the very least, the slow transition fleet case should be adjusted to reflect current airline fleet replacement plans (see Appendix I of the West Sussex Authorities Deadline 5 Submission).
- are not satisfied that the Applicant has provided the necessary information in relation to how the noise contours from the noise model have been derived.

These matters are discussed within the Local Impact Reports referred above.

22. In effect, the area limit in Requirement 16 of the Draft Development Consent Order – Version 6 [REP3-006] (without taking into consideration the matters referred to in the

- bullet points above) is, in the opinion of the JLAs, set too high. As such it provides no incentive for the introduction of quieter fleet and offers no practical control.
23. In addition to concerns that the NRP forecasts have been set too high, at least in the short term, there are concerns around the accuracy in the forecasting of the baseline growth. The JLAs have set out their concerns about the baseline growth being overstated in [REP4-049](#). Assuming the ExA find it acceptable for the airport to compare the difference between baseline of future years with and without project, rather than comparing against a “do nothing” scenario except with future fleet, the inaccuracies in the demand forecasting impact on the assessment of noise effects. In turn this affects the assessment of impacts including the health and wellbeing work contained in the 5.1 ES – Chapter 18 Health and Wellbeing [[APP-043](#)].
 24. The JLAs still consider there is value and a need to consider the 2019 movements with the 2029 fleet to consider how much improvement would have been attained by virtue of new fleet alone as a sensitivity test and to inform any benefit sharing and the setting of the noise envelope.
 25. Therefore, we would ask the Examining Authority to ensure that the Applicant produces updated noise modelling (stating full details of the inputs of the models and an explanation of uncertainty associated with the model), impact assessment and noise envelope based on revised forecasting and that the other reports that depend on this work are updated taking account of the new information.
 26. The Joint Local Authorities hope that their concerns are clear to the Examining Authority and invite them to address the matter with the Applicant.

The Noise Envelope

27. Whilst the JLAs do not consider that it is appropriate to suggest actual limits at this time for the reasons referred to above, they do consider that any noise envelope needs to take into consideration a variety of different metrics, against which appropriate action thresholds and absolute limits can be set.
28. The aim of the JLAs is to ensure that environmental performance is assured rather than controlled. In this regard, they consider that the noise envelope is first and foremost a tool to manage noise. In order to achieve this the JLAs consider that any system must include thresholds and limit values.
29. The use of thresholds in legislation, environmental and performance management systems is commonplace. Examples exist in the aviation sector such as the London Luton Airport Expansion DCO[1] proposition.
30. A Limit value is the maximum level of an environmental performance indicator that must not be exceeded. Where it is exceeded then the airport is liable to a penalty and to take urgent action to reduce the specific measure below the limit. It is expected that this will be in accordance with a previously agreed procedure to prevent delay.

31. The Thresholds are set at a proportion of the Limit value. In the case of noise, it is proposed to have two Thresholds, one set at 80% and the other at 90% of the Limit value. These are described as Level 1 and Level 2 Thresholds respectively hereafter. The purpose of the Thresholds is to ensure appropriate and proportionate management action is taken at an appropriate time to prevent the Limit value from being exceeded. In this way, the management systems should ensure that a breach of a Limit value is prevented. To prevent delay then there must be agreed minimum contingency procedures between the Applicant and the Environmental Scrutiny Group that would be activated on the exceedance of a Threshold.
32. It is expected that rather than rely on formulation of a plan should a Threshold or Limit be exceeded, contingency plans are prepared and agreed with the Environmental Scrutiny Group in readiness should action be required due to actual or potential exceedance of a Threshold or Limit. These would form the minimum response by the Applicant and additional measures could be adopted following a risk assessment of the adequacy of the measures. These systems can all be formulated and agreed in advance.
33. As part of all operations, it is expected that a QC budget system is operated alongside a forecasting and annual review of actual levels. This is irrespective of whether any Threshold is crossed.
34. Where the Level 1 Threshold is exceeded or is predicted to be exceeded, proportionate action may include (by reference to a Level 1 contingency plan as appropriate):
- Enhanced monitoring of appropriate operational indicators that influence compliance and reporting to the Environmental Scrutiny Group
 - Action as appropriate to ensure that an exceedance of the limit does not occur.
 - A report is submitted to the Environmental Scrutiny Group that is to include:
 - A description of the Threshold that is exceeded;
 - A statement by the airport operator about the ongoing operational and management practices;
 - Any actions arising as a result of the actual or potential breach to limit further exceedance of a Level 2 Threshold or prevent a breach of the Limit.
35. If the Level 2 Threshold is breached or is predicted to be breached, a Level 2 Plan would be submitted to the Environmental Scrutiny Group. This plan would include:
- Confirmation of the activation of the Level 2 contingency plan
 - On an agreed risk basis, the likelihood of the contingency plan achieving its objectives and the additional measures identified and implemented as required.
 - Evidence of the action taken by the Applicant including corporate monitoring and reporting of information and decision making.
 - This is likely to require more stringent measures to control the allocation of slots, such as the use of QC budgets and restrictions on the airport's ability to declare further new capacity until it is demonstrated that an effective mitigation plan is in place to prevent an exceedance of the Limit. Where mitigation is required, a programme of implementation would also be included in the plan.

36. Where a Limit is exceeded, or is predicted to be exceeded, the Applicant is expected to immediately formally notify the Chair of the Environmental Scrutiny Group and initiate a previously agreed Limit Exceedance Contingency procedure to remedy (if an actual breach) or prevent (from a predicted breach) occurring. Action may include the withdrawal of slots with the measures aimed at resolving the impact in the most effective way.
37. In contrast to the Applicant's proposal, the JLAs consider that the first noise envelope period needs to be split down into two shorter periods to allow to refine the control over the inaugural period of the noise envelope. The initial 9 year period would therefore become a 4 and 5 year period respectively.

Assuring and Determining Compliance

38. In determining whether a Threshold or Limit is likely to be exceeded it is expected that a variety of techniques involving predictions, reporting of measured operational and noise data and comparison of actual performance against predictions would be used.
39. The Applicant's noise envelope already suggests a Threshold based approach utilising forecasting to provide confidence that the noise contour Limit would not be breached. However, there are uncertainties over forecasts, and they do not always represent what happens in reality. As such, the threshold approach needs to be adjusted to account for uncertainties between noise contours based on forecast aircraft movements and noise contours based on actual movements.
40. Given the importance that there is confidence in the process by which the Applicant predicts future noise contours, it is essential to the Examination for the Applicant to provide a comparison between forecast and actual contours so any uncertainty between forecast and actual noise contours can be understood. Consequently, **it is requested that the Applicant provide both forecast and actual noise contour areas for the ten years preceding 2020 so that the likely robustness of future estimates can be tested.**
41. To improve confidence in the prediction and provide better control the use of the quota count system is advocated for consideration of all aircraft noise. This should be used in addition to the predictive contours and the annual contours as it provides a means to predict inter and intra-year whether the forecasts are likely to be achieved as well as provide the means to control the overall aircraft noise emission.
42. Although there is not a perfect correlation between the use of QC budgets and the precise size of the noise contours, the JLAs still consider that the use of forward-looking QC budgets would provide some degree of control to minimise the risk of Noise Envelope Limits being exceeded. This is particularly important in the light of the effective 2-year time lag between an exceedance or prospective exceedance being identified through the noise contour process as proposed by the Applicant and the ability to actually limit or control future slot allocation.
43. The London Luton Airport Expansion DCO^[1] noise control scheme, as originally proposed, was criticised by stakeholders as there was no confidence that a

retrospective approach to testing noise contour areas against thresholds would be sufficient at preventing exceedances of noise contour limits. Consequently, a forward-looking approach was developed based on the Quota Count (QC) system.

44. Analysis was undertaken of noise contours areas based on actual movements and the QC from scheduled movements were analysed for historic years. Based on this analysis, a relationship between the actual noise contours and the scheduled QC was developed so noise contour area limits could be converted into equivalent QC limits and thresholds for scheduled aircraft.
45. This method allows a forward-looking QC control measure to be applied during scheduling that would minimise the risk of a threshold or limit being exceeded as a result of the allocation of further slots leading to increases in the number of actual aircraft movements.
46. This relationship between the scheduled QCs and actual noise contours also took into account the potential for delayed flights to impact on the actual noise contours by making allowance for such routine delays that would not be capable of dispensation under the Government's night noise regime. Currently, it is not clear that the Applicant's approach to night noise contours makes any such allowance for delayed flights.
47. The Applicant is already known to collect information about QC usage of aircraft as it publishes information about night noise and also about the QC "per seat". It is readily available to the Applicant and, while a small amount of additional processing may be required, this is considered to be wholly proportionate and provide a suitable management system.
48. It is envisaged that the QC system along with noise contour forecasting (and actuals verification) would become embedded within the operational processes.

Capacity Release and Slot Management

49. Capacity relates to the total number of slots declared by an airport. It does not mean that all slots stated in the capacity declaration may be in use at any time. Where there are unused slots these can still be allocated to airlines. This can occur even if no new capacity is declared. Therefore, it is not sufficient to try and control a breach simply through preventing release of new declared capacity. As set out earlier in this submission, slot management measures must be adopted to ensure that even if capacity is declared, slots are only released in numbers and to aircraft that have QC values that are not likely to exceed the QC budget (and in that way not result in a breach of the limit value).
50. Capacity release and slot management should be forward looking and used to prevent a breach of a noise contour rather than as a way to solve what is, as proposed by the Applicant, potentially a two year breach of the same indicator (one year breaches presently have no sanction or penalty).
51. Therefore the mechanism by which the noise envelope would work would be to:

- an initial delay of slot allocation by two years to allow analyses of the data to inform what may be reasonably be released so as not to exceed a limit.;
 - limiting the total number of slots that can be allocated;
 - conditioning slots so that they must be utilised by aircraft with appropriate QC performance.
 - putting in place forward looking QC budgets consistent with noise contour predictions and not exceeding these.
52. It is likely that additional analyses of slot usage will need to assist formulate appropriate conditions to apply to new and, if possible, existing slots.

Slot Release and the Noise Insulation Scheme

53. To ensure that installation of noise insulation and mitigation is incentivised, it is proposed that slot release is dependent on the completion of installation of noise insulation. An appropriate performance indicator needs to be established but the basis could be the percentage of properties contacted and offered noise insulation (in accordance with an agreed protocol) and for whom work is complete or they have declined adaptation.

Noise Controls:

54. The following are proposed as appropriate metrics to be the primary controls within a noise envelope. These are considered necessary to deal with the main effects of noise during different times of the day and by having regard to event as well as averaged metrics.
55. The noise limits should be defined by the area in km² of the area under the extent of the noise contours for the following:
- i. 51 dB LA_{eq 16h}
 - ii. 45 dB LA_{eq 8h}
56. Items i) and ii) are consistent with the approach of Gatwick and aligns with national policy statements for LOAEL.
57. However, the JLAs consider that these contours do not by themselves afford adequate protection to those who are worst affected and as such there should be additional limits to the following contours:
- v. 60 dB LA_{eq 16h}
 - vi. 55 dB LA_{eq 8h}
 - vii. The nightly average, during the 92-day summer season, of the one additional aircraft noise induced awakening per night.
58. In addition to the above a daytime event based N₆₅ (N above) metric is also required. (The awakening contours taking account of the events at night).

59. To ensure that the information above is reliable, a validation and verification system is required for all inputs to ensure that the data produced has acceptable levels of inherent uncertainty.
60. As much of the data for a noise envelope relates to operational practices and operational indicators, measures need to be in place to inform what was influencing the data. A range of operational data will be required to facilitate cross checking of the results and input data and test assumptions.

Air Traffic Movement Limit – Existing Normal Routes

61. The maximum air traffic movement limit is set as a requirement in the in the DCO therefore there is no need to replicate it within the noise envelope. However, it is worth noting that the airport can declare and allocate capacity (i.e. slots that allow additional ATMs) without brake provided the noise limit is not exceeded. This is again why it is critical to ensure that any noise limits are set appropriately otherwise the airport increases capacity in a relatively uncontrolled fashion and benefits from the growth at the expense of the local community.

Air Traffic Movement Limit – Tactical Offload Route 9 (Wizad)

62. There is considerable uncertainty around the use of Route 9 Wizad in future. This is defined as a tactical offload route and cannot be used for flight planning purposes and is only to be offered at the last minute, yet the Applicant has suggested there will be an intensification in the use of this route.
63. To ensure that this route retains the purpose for which it was originally intended and to provide certainty, as part of the noise envelope it is proposed that an operational limit is placed on this route by reference to timing and numbers of aircraft.
64. In order to facilitate the setting of appropriate conditions the Examining Authority is requested to require the Applicant to provide total air traffic movements (ATMs) for each year including and between 2010 to 2020. For the same period the Applicant is asked to provide the number of ATMs using Wizad. For those aircraft using Route 9, the Applicant ought also to provide a breakdown showing the time and the reason why the aircraft was directed along Route 9.
65. Based on this information, the JLAS propose to establish a percentage use by Wizad and we consider this reasonable to be scaled to the operation of the airport. At present it is believed that the number of ATMs using Route 9 Wizad are <0.1% of all ATMS. The JLAS would derive a figure to be proposed as a control within the DCO together with the restriction on the hours of use of Route 9.

Specific Controls

66. Specific controls for particular operational activities can be considered as performance drivers and as such they are an important part of a holistic noise envelope. These

controls have (or should have) their own systems for compliance setting standards, monitoring, reporting and processes for non-compliance. At present these include:

- Departure / arrival noise limits
- Noise and track keeping compliance
- Night time noise regime.

67. Existing specific controls that influence the noise contours ought to be integrated with or fully incorporated into the noise envelope as specific measures.
68. As the future night noise envelope is highly dependent on the night noise regime, it should be incorporated into the DCO and there are ways in which this is achievable. It is essential that night controls continue to be limited by movement numbers and QC class. With the growing understanding of the impacts of night noise then if anything there should be progressive reduction in the numbers of night flights at Gatwick.
69. For night noise controls, Gatwick compares less favourably against Luton, Stansted and Heathrow. Luton's extant planning permission seeks to progressively reduce night noise quota count until 2028. Heathrow have a voluntary curfew for a portion of the night and lower figures night flight allocation.
70. At Stansted, there is a night noise limit as part of the recent planning application and the current DfT Night Noise consultation seeks views on whether, despite being a designated aerodrome, it is removed from the SoS night noise regime.
71. In communication with DfT about the relationship between planning and DfT controls they observed that there was no reason night controls could not be in a permission granted under a DCO under the Planning Act 2008 (as is the case at Stansted). Presently, the DfT is consulting on removing the night noise controls at Stansted as controls are now contained within the permission.
72. The DfT went on to highlight that noise controls in the planning process cannot be unilaterally reviewed and amended so they would remain in perpetuity until a future relevant planning application. In contrast, the controls set by the Secretary of State under the Civil Aviation Act can be reviewed at the discretion of the Secretary of State and provide less certainty to the communities around the airport.
73. The final point made by the DfT is also a concern of the JLAs. Even the most sophisticated system requires checking and updating to ensure it continues to operate as intended. Therefore, the JLAs are considering ways in which some form of formal process could be created that would allow the updating of the noise envelope.
74. The JLAs distinguish between outcome-based controls, such as an area based noise Limit and process/ activity-based controls such as the departure noise limits. To differentiate, process controls ensure that a specific aircraft achieves a certain noise emission standard at a given point. Whilst assuring individual performance it has marginal effect on the receivers close to the airport.

Other Information to be Reported

75. In addition to the above noise descriptors, the JLAs have sought a range of other noise metrics to be produced and published, this includes, an annual QC budget, fleet QC information refined to daily usage (day and night), L_{den} , L_{night} and population and households exposed. In addition, overflight data ought to be provided. These are considered necessary for communication, health comparison and understanding the broader effects of aircraft noise.
76. The JLAs would also seek to establish a mechanism to include new metrics or set aside those that served no purpose through a formal review within an Environmental Scrutiny Group.

Fleet mix

77. The JLAs have reviewed the latest fleet transition information provided by the Applicant in **REP4-004** and consider the Applicant's proposed new central fleet transition case to be too conservative (see JLA D5 Response included at Appendix I). However, the revised fleet transition projection might be considered a reasonable worst case, to replace the slower transition fleet case that the JLAs have been clear is considered too conservative and not realistic.
78. The rate of penetration of newer, quieter aircraft into the fleet mix is critical to achieving reductions in noise. The applicant has defined two scenarios. Slow transition and central case transition to quieter fleet. The final fleet mix is not defined. The term "central case" implies that there is an "advanced" or "fast" case that ought to be considered.
79. The Applicant has used the slow transition fleet which is the worst performing fleet for the longest period giving the airport the greatest predicted noise impact as a basis for setting lax controls. However, the JLAs are of the view that the original central case transition is more realistic and that there is realistic possibility that the future fleet may be quieter than that which is envisaged under the current proposal. The result of this is that the ceiling in terms of area exposure is set too high and this will allow the applicant to have unfettered growth without achieving any benefit to the communities.
80. The JLAs consider that this approach is inconsistent with the ICAO Balanced Approach as adopted in UK law as well as national aviation, planning and noise policy. At the very least, the noise envelope should be set on the basis of the central case transition fleet mix and not the slow transition fleet mix. In that way, capacity cannot be declared until such time as compliance with the noise envelope is demonstrated (whereas, with slow transition, it is probable that capacity could be declared immediately and taken up without any incentive on the airport to ensure that the airlines operate with the quietest possible fleets).
81. Furthermore, the JLAs are keen to receive information not only on the rate of transition to current next generation aircraft but also on the technology that may supersede the current "quiet fleet" in terms of ongoing reductions in noise. It is important that the potential for further noise reduction is factored into the process so that there is an ongoing sharing of the benefits in future. In that way capacity cannot be declared until

such time as compliance with the noise envelope is demonstrated (whereas with slow transition it is probable that capacity could be declared immediately).

Sanctions

82. Any mechanism for environmentally controlled growth needs to have sanctions in it for:

- “administrative” failings such as failing to provide reports within timescales by the control documents;
- Matters that may be considered as obstruction;
- process breaches, for example, failing to adhere to aircraft departure noise levels;
- breaches of the overarching noise limits.

Sanctions need to be proportionate to their effect and of sufficient magnitude to encourage compliance.

83. The JLAs support the use of financial penalties as this provides an impetus to comply with the procedural and objective requirements. The Examining Authority for the London Luton Airport expansion DCO suggested that financial penalties could be applied as part of their Recommended DCO Schedule[2]. Reference 23(15) states:

“ Where a Mitigation Plan has not been effective in removing a breach of a limit within 12 months of its implementation (or within an agreed alternative timetable contained within that plan), the Operator shall be required to pay a financial penalty for each day that the exceedance continues to occur beyond the 12 month period, unless otherwise agreed with the ESG. The scale of financial penalty shall be determined by the Secretary of State and shall be paid into the Community First Fund”.

84. However, the JLAs would like the concept of financial penalties taken further by providing a direct payment to communities affected by unconsented levels of noise. The JLAs are of the opinion that a mechanism by which all residential premises:

- within the outer noise control contour in practice at the time of the breach are compensated financially, for example with a payment of £1,500 per breach;&
- any premises that were outside of the inner noise insulation zone but subsequently moved into the inner noise insulation zone as a result of the breach, are offered the inner zone noise insulation package once a breach has occurred to mitigate any future risk.

Further Development

85. Whilst much of the information and ongoing monitoring is available to develop these proposals relating to environmental impacts identified, the Authorities need, from the Applicant, additional information to develop thresholds and limits in relation to Air Noise, including:

- i. for the period 2010-2019, the percentage of scheduled daytime movements that were delayed and instead occurred during the night-time.
- ii. for the period 2010-2019, details on uncertainties of forecast noise contours through a comparison of forecast noise contours against actual noise contours.
- iii. approach and departure profile and noise power distance data (ATMs have been provided but there is uncertainty around whether these are achievable).
- iv. corrections applied to noise power distance data for approach and departures for individual aircraft.
- v. baseline SEL and LAm_{ax} used for validation of individual aircraft at each monitoring location.
- vi. predicted levels from ANCON for each aircraft approach and departure at each of the monitoring locations used in the validation process
- vii. the year and period that the data is provided for.
- viii. atmospheric attenuation method applied when calculating the noise contours; and
- ix. ground track and dispersion for baseline and northern runway proposal.

86. Furthermore, access will be required to airport operational database for a range of data. Access will be proportionate and necessary with recognition of commercial sensitivity.

87. A list of actions:

For the Applicant

JLA-NE-1	Data and process	The Applicant should provide information set out in items i) to ix) paragraph 5.85 above.
JLA-NE-2	Forward looking controls	The Applicant should adopt an approach that is robust and includes adequate forward looking controls with appropriate operational controls to assure compliance. A combination of forecasting and QC management system is anticipated as being required to provide confidence that noise contour area limits would not be breached. Justification should be provided for the solution chosen.
JLA-NE-3	Scrutiny group	The Applicant should fund and set up a scrutiny group including the JLAs to review and approve AMFRs and action plans along the model of the London Luton Airport proposal.
JLA-NE-4	Sanctions	The Applicant should set in place adopt capacity and slot restrictions if a noise contour limit breach occurs or is predicted to occur for the previous 12-month period.
JLA-NE-5	Slot Control	The Applicant to propose a suitable slot control system as part of achieving the QC budget and provide assurance as to compliance with predicted noise contours.

For the Examining Authority

ID	Topic	Action for the Examining Authority
JLA-NE-6	Baseline and future forecast	Consider directing the Applicant to provide the necessary information to understand the basis of the capacity forecasting

JLA-NE-7	Revised fleet mix assumptions	Request the Applicant to provide updated and realistic fleet mix forecasts to the satisfaction of the Joint Local Authorities
JLA-NE-8	Noise Contour modelling	Request the Applicant to provide essential model information, including approach and departure profiles, noise power distance data (ATMs have been provided but there is uncertainty around whether these are achievable).
JLA-NE-9	Management Systems	The ExA considers asking the Applicant to provide detailed information about how operational and noise data alongside suitable processes (such as a 24 month delay to capacity declaration) will be used to assure compliance with the noise envelope.
JLA-NE-10	Financial penalty	The Examining Authority should consider the merits of recommending a financial penalty system to the Secretary of State as part of any consent if granted.
JLA-NE-11	Costs to local authorities	The Examining Authority consider ensuring a better mechanism than the PPA is provided for as part of any consent granted to ensure that all JLA costs are provided for and can be recovered as a civil debt if necessary.
JLA-NE-12	Information provision	The Examining Authority consider appropriate provisions for the DCO to ensure that appropriate powers are included within the DCO in relation to the provision of information to the public and the Steering Group.
JLA-NE-13	Slot Control	The Examining Authority to include provisions for slot control and conditions of use within any DCO.
JLA-NE-14	Route 9 (Wizad)	The Examining Authority to request the Applicant to provide the information about the total number of ATMs per year from 2010 to 2020 inclusive and the number of ATMs using Route 9 for the same period together with a breakdown as to why Route 9 was allocated as a route and the time of use.
JLA-NE-15	Route 9 (Wizad)	The Examining Authority to include time periods on the use Route 9.
JLA-NE-16	Noise Insulation and slot release	The Examining Authority include pre-requisite criteria for the installation of noise insulation into the DCO to permit slot release.

^[1] <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR020001/TR020001-003212-7.07%20Green%20Controlled%20Growth%20Explanatory%20Note%20.pdf>

^[2] <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR020001/TR020001-002827-Recommended%20DCO%20Schedule.pdf>

^[3] [The Future of Air Transport Cm6046, DfT 2003](#)

^[4] UK Airspace Policy: A Framework for Balanced Decisions On The Design and Use of Airspace, DfT, February 2017

^[5] "Noise Envelopes", CAP 1129, Civil Aviation Authority, December 2013

