

No 3rd Runway Coalition Response to Heathrow Statutory Consultation

13 September 2019

Introduction

The No Third Runway Coalition was set up in March 2017, bringing together a number of community groups who are opposed to expansion at Heathrow. Our members include residents, local community groups, environmental campaigners, MPs and local authorities.

The No 3rd Runway Coalition is opposed to the expansion of Heathrow. In particular, we are opposed to the following impacts set out in the masterplan:

- Destruction of 750 homes.
- Nearly 6,000 homes rendered uninhabitable.
- Destruction of the communities of Harmondsworth and Sipson.
- The massive increase in noise and air pollution from the extra 280,000 flights each year.
- Huge increase in carbon emissions which is not compatible with the Climate Emergency and the Government commitment to Net Zero.
- Likelihood of large taxpayer subsidies for surface transport improvements.

Airports National Policy Statement Para 1.18 of the Airports NPS states that: *“Under section 104 of the Planning Act 2008, the Secretary of State must decide any application in accordance with any relevant NPS unless he or she is satisfied that to do so would:*

- *Lead to the UK being in breach of its international obligations;*
- *Be unlawful;*
- *Lead to the Secretary of State being in breach of any duty imposed by or under any legislation;*
- *Result in adverse impacts of the development outweighing its benefits; or*
- *Be contrary to legislation about how the decisions are to be taken”.*

It is clear that at the very least:

- the UK would be in breach of international obligations such as those on air quality, habitats and water quality; and
- the adverse impacts of the project outweigh its benefits.

Heathrow’s current DCO proposals therefore cannot be approved under the adopted NPS because to do so would clearly breach these requirements.

The challenge of climate change is not adequately addressed in the consultation, Indeed, Para 1.21 of the NPS states: *“When considering whether to review the*

Airports NPS, the Secretary of State will look at whether there has been a significant change in any circumstances on which the policy was based and whether such change was anticipated when the Airports NPS was designated". Government's amended climate change policy and commitment to net zero clearly provides such a significant change in circumstances as to make the NPS not fit for purpose in concluding that a new runway is needed.

In support of this, the preamble to the Climate Change Act 2008 (2050 Target Amendment) Order 2019 states:

'The Secretary of State considers that since the Act was passed, there have been significant developments in scientific knowledge about climate change that make it appropriate to amend the percentage specified in section 1(1) of the Act.'

The Airports NPS should be reviewed and Heathrow should suspend its DCO-related work

Inadequate level of information

The volume of consultation material published by Heathrow makes it impossible to review and comment on it all within the time frame. This is a complex proposal even for those with expertise in infrastructure projects and it is almost incomprehensible for the average member of the public.

As this is proposed to be the last statutory consultation prior to the submission of the DCO application, full details of impacts and mitigation measures should have been provided. Instead, assessments are incomplete and mitigation measures have not been demonstrated to be effective. Once these have been completed and decided respectively, a further statutory consultation exercise should be undertaken.

Heathrow should be clearly setting out in this consultation a full impact assessment of noise, air quality and other environmental impacts along with details of their mitigation proposals and assessments showing their effectiveness (or otherwise) in mitigating harm as far as possible for all the impacted communities. This information is not provided despite being required by para 1.29 of the Airports NPS.

The DCO process is intended to be front loaded. Heathrow have failed to provide the necessary studies and assessments to ensure that communities are fully informed of the scale of the impacts that expansion will have.

There are many areas where assessments are incomplete – for example air quality and noise – and mitigation measures remain vague and lacking in any proper detail. The possible benefits of mitigation measures have not been assessed.

The assessments carried out to date do not go far enough in terms of identifying what measures would be required to avoid adverse health impacts.

Noise

Inadequacy of consultation materials

The documents describing the overall noise effect on communities are utterly impenetrable and require minute analysis to understand the facts behind the obfuscation. The following facts are nowhere stated in the documentation but can be painstakingly unearthed:

- Communities that are not overflowed will get noise for the first time. It is not clear where those communities are as there has been no precise flight path information.
- Only a few communities will be lucky enough to get less noise than with two runways. Similarly, it is not clear where those are communities are through the absence of flight path information.
- The overall noise impact will be much greater.

These facts have been omitted from the consultation with a false impression of a net benefit, thereby giving a totally misleading picture of the noise impacts.

It is not possible to properly assess the noise impacts from the proposed expansion nor whether the mitigation measures are appropriate when flightpath information has not be provided. This is unacceptable and will result in the impacts for many communities not being properly mitigated.

Depending on the precise alignment of the new flight paths, some communities will be experiencing noise for the first time. This will clearly increase the noise pollution endured by these communities. The maps provided by Heathrow do not clearly show which areas will get more noise. Precise flight paths should be published to show residents exactly what noise levels they will experience.

Further, the impact of the proposed changes should be communicated directly and clearly, especially to those communities who will be newly overflowed.

This consultation does not do this through the absence of a clear picture of the total impact of current noise levels compared to the impacts of the proposed arrivals and departures from IPAs.

Noise levels

The proposals seek to maximise the number of flight movements over the most densely populated part of the UK. This is a fundamental problem and no amount of 'mitigation' can get around it.

The most recent Government policy on noise states that the onset of community annoyance begins at 54dB (LAeq). It is vital that this metric is applied to the proposed changes as a minimum standard.

Given that many people are affected at noise levels down to 51dB LAeq, there is a good case for providing insulation at properties exposed to aircraft noise at that level as an absolute minimum. The WHO strongly recommends reducing average noise levels to below 45 dB LAeq as aircraft noise above this level is associated with raised blood pressure, cardio-vascular disease and stress.

Further, the way noise measurement is averaged out is effectively meaningless. It is the single noise events that cause the disturbance. Communities on the ground do not hear noise in average levels. DfT has accepted in its general aviation guidance policies that noise events ($N > 65$ dB Lmax) and single mode should be used as key supplementary metrics, and the absence of this metric from the analysis in this consultation is concerning.

Noise reduction measures

The consultation documents' use of highly questionable and speculative noise performance characteristics for future aircraft types in 2035 - way in excess of the 01.dB / year claimed by Government in the Appraisal of Sustainability by reference to Sustainable Aviation Road Map. There has been no validation or peer review of these enhanced performance characteristics.

Heathrow say they will 'strive' to use enhanced take off profile (5 degrees) but this means more engine wear and the airlines only lease their engines from the manufacturers. Therefore, there can be no guarantee that this will occur. This combined with 3.2 angle of descent shrinks the contour / impact area.

There have been no noise assessments carried out for the intervening years from R3 opening until 2035. Heathrow's claim that there will be 'less noise than today..... with 3 runways' will almost certainly not be true from opening date in 2026 to 2035.

Insulation and compensation

Noise insulation is obviously only useful when one is indoors. Outside, noise cannot be mitigated (other than by using quieter aircraft). It is therefore reasonable that residents should be compensated for outdoor noise. A noise compensation scheme should also support those who are below the noise insulation criteria but who are nonetheless affected by aircraft noise.

Other noise sources that are not associated with the airport activity such as existing roads and railways are also excluded from Heathrow's Noise Insulation Policy. (p. 25) This is a cop out. Those existing roads and railways will be impacted in some form and excluding their noise emissions is not fair.

Local communities around the airport will experience as much as 6-9dB increase in noise from ground operations from a 3rd runway.

Despite the impact of noise on local communities no timescales for the provision of insulation and mitigation measures have been confirmed in the consultation. However, our understanding is that the roll-out period could potentially be 20 years, blighting people's homes for years.

The issue with contours is that it gives too much weighting to the noise of individual aircraft and not enough to the number of flights.

Heathrow are forecasting a reduction in noise from 2035 owing to technological improvements but this is vague and there is no accountability mechanism for this.

Noise reduction is conspicuously absent from Heathrow's proposals. Efforts should be made to reduce the noise from individual aircraft. This can be achieved by regulation, simply banning the noisiest aircraft from Heathrow. Or, as noted below, by noise-related charges. The great advantage of these approaches is that they benefit everyone who suffers (or will suffer) from aircraft noise.

Alternative designs of noise envelope and re-arrangements of flight paths, including respite and runway alternation, do not reduce noise overall. They can benefit one area, but only at the expense of another.

Impact on health

No empirical evidence or research on health impacts has been presented.

The NPS (Para 5.47) highlights that the Government wants to strike a fair balance between the negative impacts of noise (on health, amenity, quality of life and productivity) and the positive impacts of flights. The PEIR acknowledges this approach but provides no assessment to demonstrate this.

Inadequate assessment

NPS Para 5.52 requires Heathrow to undertake a noise assessment for any period of change in air traffic movements prior to opening, for the time of opening, and at the time the airport is forecast to reach full capacity, and (if applicable, being different to either of the other assessment periods) at a point when the airport's noise impact is forecast to be highest. Heathrow's PEIR acknowledges this requirement and says that assessment years have been set out in Chapter 17, however this does not appear to have been done.

2035 is identified as the worst-case year once the 3rd Runway is operational and it appears that 2024 is considered to be the worst in terms of construction noise. We cannot see a clear statement on which year is taken as the year of opening for assessment purposes.

The PEIR report states that the characteristics of the existing noise environment are provided in Chapter 17 on Noise but there is no specific section on this topic. This element of the study should be expanded and cover all areas that will be impacted, not limited to those residential locations in the immediate vicinity of the airport.

It is clear that by requiring Heathrow to limit or reduce impacts compared to 2013, this effectively builds in huge amounts of headroom for additional impacts compared to the 2017 scenario. This skews the requirements vastly in favour of Heathrow and against local communities.

The WHO Noise Guidelines for night and day periods (40dB Night and 45dB Day) are much stricter than those currently used to assess aircraft noise impacts. Noise contours should be included for these and Heathrow should assess what measures would be required to comply with the WHO standards.

(Para 17.9.8). The assessments carried out do not appear to be complete and we cannot see how the impacts of the various mitigation measures have been assessed. Also we cannot see any quantification of the reductions in noise levels that will presumably be achieved through the use of these measures. Without such information, we do not see how they can be properly evaluated against the requirements of the NPS. Much more information is required

- Who will be enforcing compliance with these measures?
- What consequences will there be for Heathrow and/or airlines where measures are not implemented fully or not implemented effectively etc?

The information provided by Heathrow does not demonstrate that significant adverse impacts have been avoided. The noise maps in their assessment appear to show there will be some areas that will still experience significant adverse effects (SOAEL). The information provided does not demonstrate that adverse noise impacts have been minimised.

It is not clear that Heathrow has assessed what level of mitigation is required to minimise noise impacts. Has consideration been given to how expansion will contribute to improvements to health and quality of life? Further details need to be provided.

It is evident that Heathrow are failing to meet the requirements of the NPS which means the DCO should not be permitted.

Respite

Communities at either end of the runway used for 'mixed mode' operations will potentially experience a significant loss of respite as they experience noise for a longer period, or if it's the new runway, will be subject to continuous operations for the first time.

It is difficult to know the full impact of the proposed changes because at this stage it is not clear where these new flight paths will be, nor how any alternation would be operated.

However, it is clear that daytime respite will be reduced to about one third of a day for many communities that currently get half a day.

There are no clear proposals for defining respite, monitoring respite periods, or for penalising for failure to adhere to respite. Whatever the final respite periods, there are no formal governance structures planned to enforce respite arrangements and this is particularly concerning for local communities.

We note that the consultation attempts to define 'respite' but again not in a clear or straightforward way. Most people would think respite simply means not hearing any aircraft for a period of time, but Heathrow are attempting to hedge their bets by saying it could be a 'reduction in noise'. This 'reduction' is neither defined in terms of say 'half as loud' or in terms of numbers. Overall it is meaningless and we know from Heathrow's own social research that people need noise to be reduced by around a half in decibel terms before they report any 'respite' value.

Noise impacts should be limited and where possible reduced - so where the impacts have not been reduced, have Heathrow assessed what measures would be required in order to provide a reduction?

Noise Envelope

As set out by the CAA in its document CAP 1129, a Noise Envelope is supposed to include clear noise performance targets, be agreed with stakeholders and be legally binding but none of these have been undertaken in the current consultation process.

Noise performance targets should be clearly set and there must also be a mechanism in place for the noise envelope to be made progressively more stringent to drive improvements in aircraft performance.

Noise envelopes have been set at Heathrow previously and they have been of limited or no use because they have been set as such generous levels (to the

airport/airlines) that they have not had any significantly beneficial effects to communities at all.

Noise Mitigation

The NPS highlights that Heathrow is expected to not just continue with its existing mitigation measures but that they should “...*explore all opportunities to mitigate operational noise in line with best practice*”. We will want to see how this has been undertaken and how a range of opportunities have been considered.

Para 5.66 of the NPS states that: “*The Secretary of State will expect the applicant to put forward proposals as to how these measures may be secured and enforced, including the bodies who may enforce the measures*”. Some general references to securing and enforcing measures are made in Chapter 17 but the required information in terms of who will be doing this and how is not provided.

It is not clear how any benefits of future technological improvements will be shared between Heathrow and communities.

Runway Alternation

Heathrow seem to still be working out how deliver a runway alternation scheme that maximises (in their view) the benefits for communities. The details of the proposed scheme are the subject of further consultation and ongoing development (as stated in Para 17.5.36 of PEIR Chapter 17). Assumptions have been made in the noise assessment, but these are subject to change.

The respite provided by runway alternation is not the same for each runway. Communities under the departure and arrivals flight paths for the southern runway and the new 3rd Runway will get 2 days out of every 4 when there is no alternation during the day at all.

Due to the complexities of the airspace use at the airport, the current northern runway which becomes the middle runway when expansion takes place can never be operated in mixed mode like the other 2 runways, which in theory allows communities under flightpaths serving this runway to get more respite (at least half a day).

However, it is possible that communities located under the middle runway flightpaths could be impacted by noise on the other 2 runways, so will the respite they get be sufficient? The runway alternation proposals have not been clearly explained.

Night Flights

6 hours sleep is insufficient for adults and far too little for children and there is an increasing body of academic evidence that demonstrates this.

In an area such as around Heathrow there should be an eight-hour outright ban (curfew) on all flights on all days. We believe that such a ban is vital for the health of the communities to guarantee a good night's sleep.

Heathrow are not proposing to control the numbers of arrivals and departures in the 5:30: - 07:00 period which means a potential massive increase in flights in the 05:30 - 06:00 - (the night quota period).

There is also likely to be a significant increase in current movements in the last hour of the official night period 06:00 - 07:00.

The potential increase is staggering. The Night Quota period could see another 13 arrivals and 33 departures - something like a 278% increase.

The consultation hides this under the guise of seeking to rotate the arrivals and departures on a daily basis between the 3 runways in the early morning - so in theory if you're under one of the new flight paths you will get 'respite' one day in three.

A whole new group of people - those directly east and west of the third runway will be exposed to flights just outside Heathrow's definition of night for the first time.

The diagram in 'Future Runway Operations' page 44, figure 4.9 shows a one-hour recovery time and the first 'early morning arrival' at 5.15am. This means that the likely ban period will therefore run from 12am to 5.15am - five and a quarter hours which is less than the current night-time quota period.

To what extent have Heathrow assessed the full health impacts of night flights - i.e. for the full night period of 11pm to 7am, not just the 6.5 hr period 11:00pm to 5:30am?

The problems with the arrangements as they stand are that there is no movement limit for the whole night period (23:00 to 07:00) and there is therefore likely to be an increase in the number of ATMs at night compared to the current arrangements.

A further complication is that Heathrow is proposing to tie in respite during the night with the daytime respite periods. The Airports NPS requires Heathrow to provide people with 6.5 hours without planes between 11pm and 7am.

Surface Access

The NPS sets out stringent outcomes which Heathrow must meet requiring them to: *'increase the proportion of journeys made to the airport by public transport, cycling and walking to achieve a passenger public transport mode share of at least 50% by 2030 and at least 55% by 2040.'*

It also says *'Heathrow Airport should continue to strive to meet its public pledge to have landside airport-related traffic no greater than today.'*

Even if Heathrow is able to meet the public transport target, expansion will result in a huge increase in road vehicles accessing the airport every day. Based on the calculations undertaken by Jacobs for the Airports Commission in 2014 (Appraisal Framework Module 4, Surface Access: Heathrow Northwest Runway), expansion could result in another 3 million journeys to the Heathrow by car in 2030, rising to 15 million in 2040.

The NPS requires that the number of journeys made to Heathrow by sustainable modes of transport is maximised as much as possible. This should be delivered in a way that minimises congestion and environmental impacts. The information provided so far falls suggests Heathrow will fall well short in this respect.

There are significant concerns about the ability of Heathrow to achieve these modal share targets and the impact that increased congestion will have on our communities.

Furthermore, its choice of crossing the airport boundary as a definition of 'airport-related traffic' is far too narrow - there will be vast quantities of additional vehicles caused by expansion outside that boundary that should be included in assessments and for which mitigation should be provided.

These concerns have only been heightened by the recent admission of Heathrow's CEO that the airport has failed to meet their 2018 target of the share of passengers travelling to the airport by public transport.

There has only been a 1% increase in the past decade and the figure currently sits at 41%. This makes the required target set out in the Airports NPS even harder to achieve and demonstrates that Heathrow are likely to fail to meet the target.

The Appraisal of Sustainability that was published alongside the Airports NPS predicts that expansion would result in additional congestion on local transport networks which would have a significant economic cost, yet no cost was allowed for in the evaluation of the net economic benefit of expansion.

The consultation resorts to 'indicative' coach and bus links. No new rail links are mentioned in Section 6 of the main consultation document. This is totally inadequate. We need proper, funded, plans. Not vague, unfunded, ideas.

It is not sufficient and is not sustainable to simply 'encourage' or 'improve' public transport. There must be credible and concrete plans to actually meet the aspirations of modal shift, prevent extra congestion, etc.

Heathrow claim that doubling of freight at the airport will not double the number of vehicles or HGVs on the road yet provide no evidence to support this assertion.

The masterplan shows that the construction of new roads, and diversion of existing roads and other works to move services will lead to both temporary and permanent effects. However, these are not mapped out, nor is the impact on congestion and associated impact on air pollution. It also appears that no highway improvements are proposed to deal with the increase in traffic that will be caused by expansion, relying on the overly narrow definition of 'airport-related traffic'.

There are real risks in our view that the public transport provisions will fall far short of requirements, especially in the early years, which will result in detrimental environmental impacts. This "worst-case" scenario needs to form part of the assessment, so that additional mitigation measures can be identified.

There should have been clear fully assessed and committed surface access policies and actions with defined performance indicators. These have not been provided.

The Surface Access Plan (SAP) is lacking in detail and leaves a lot of uncertainty about the measures that Heathrow are fully committed to implementing and funding. The benefits of the measures are also not clear and, in many cases, do not appear to have been assessed.

NPS Para 5.10 requires Heathrow to "*assess the implications of airport expansion on surface access network capacity using the WebTAG methodology stipulated in the Department for Transport guidance, or any successor to such methodology*". Despite this requirement, Heathrow has not done this. Instead they have used their HHASAM highway model which is not WebTAG compliant. It is concerning that such a simple requirement has apparently been ignored without explanation and in contravention of the NPS requirement.

Para 5.15 of the NPS requires Heathrow to set out in its DCO application the mitigation measures that it considers are required to minimise and mitigate the effect of expansion on existing surface access arrangements. They are also required to demonstrate that the proposed surface access strategy will support the additional transport demands generated by airport expansion (Para 5.16). This has only been done in a very general way so far and there is a lack of detail on the measures to be implemented.

The proposals put forward by Heathrow in their SAP fall short of the necessary information to show that mode shift will be secured in the way required by the

NPS. There is no credible way for the NPS targets to be met; there is a lack of evidence to support Heathrow's assumptions that it can meet the targets with the measures it has set out.

NPS Para 5.21 acknowledges that *"the applicant's proposals will give rise to impacts on the existing and surrounding transport infrastructure"*. The Secretary of State is required to consider whether Heathrow has taken all reasonable steps to mitigate these impacts during both the development and construction phase and the operational phase. With regards to the information provided to date, we do not consider that this demonstrates that Heathrow has taken all reasonable steps to mitigate impacts.

With reference to NPS Para 5.22, the information provided by Heathrow to date does not demonstrate that there are transport measures to be implemented that can satisfactorily mitigate the surface access transport impacts associated with the expansion of the airport. In the absence of proper commitments to the full range of surface access provisions we have not found information on costs or benefits of the schemes under consideration. The DCO could not be permitted on the basis of the information provided so far.

A final concern is that two of the proposed mitigation measures – the ULEZ and the Vehicle Access Charge – would raise revenue for Heathrow. Unless properly implemented, these schemes may do little to discourage use of vehicles or encourage low emission vehicles but may raise significant sums for Heathrow and there is no commitment that this revenue would be invested back into public transport improvements. Heathrow should make this commitment.

For all these reasons, the surface access proposals are totally inadequate.

Air Quality

Table 7.18 of the PIER sets out the air quality objectives that Heathrow considers apply for the local air quality management process in England. Those levels are not in accordance with WHO levels. Firstly, we see that the PM_{2.5}s limit is two and a half times the level recommended by the WHO. Secondly, we see that Heathrow are not operating any hourly or daily maxima of PM_{2.5}s. Thirdly, neither Heathrow nor the Department for Transport test at all for ultra-fine particles even though they come within the legal definition of PM_{2.5}s (because they are smaller than 2.5 micrometres).

There must be a legally binding mechanism whereby the runway cannot be used if and until the legal air pollution limits are not being breached.

The information provided in Vol 1 and Vol 2 of the PEIR is incomplete and not clearly presented (e.g. data is presented in some of the Figures without identifying which year it is for). Pollutant concentrations are presented as absolute figures

with no indication of the degree of error associated with them. Some that look like they comply could exceed when this degree of uncertainty is factored in.

This lack of presentation of “worst case scenario”, precautionary approach, which is a guiding principle of air quality assessment does not appear to have been followed, which is a major failing of the assessments carried out so far.

Although NO₂ assessments have been provided for the core area in the immediate vicinity of the airport for 2022, 2027, 2030 and 2035, these do not appear to present the required “with” and “without” the 3rd Runway scenarios.

The consultation has not made clear what air pollution exceedences occur between 2022 and 2027.

The impact of the proposals on air pollution quality should be assessed across the wider study area, not just limited to the core area.

Heathrow do not appear to be assessing air quality impacts in a precautionary way and not considering the worst-case scenario. The majority of current diesel Euro 6 vehicles fail to meet their type approval NO_x limit. The latest information is that compliant Euro 6 diesels will not be available or on the road until 2023 at the earliest. Further, the latest Portable Emissions Measurement System (PEMS) measurements of emissions from new cars under real-world driving conditions also shows that the average Euro 6 diesel emits 382mg/km NO_x i.e. almost 5 times the official limit.

The proposed Heathrow ULEZ will not be charging the non-compliant Euro 6 vehicles to drive within the area, therefore they have not factored this lack of reduction of emissions from these vehicles into their modelling.

Mitigation measures have been assessed in an adequate way, for example the impact of the proposed Ultra Low Emission Zone and the Vehicle Access Charge do not appear to have been modelled.

Construction and operational impacts have been assessed in some cases but it is not clear if these impacts are combined or assessed as 2 distinctly separate impacts. As construction will be occurring for many years during operation of an expanded Heathrow, these impacts need to be assessed cumulatively, as well as being presented separately.

As the surface access proposals are incomplete, so the air quality assessment cannot be finalised. Any changes or additions to the surface access proposals or new or revised mitigation measures will affect the air quality assessment.

The NPS (Para 5.36) recognises that mitigation measures may affect the project design, layout, construction and operation, or affect other mitigation measures, it is important that all mitigation measures are fully assessed at an early stage in

case there are knock on effects that need to be factored into the design etc. This has not been done.

The NPS requires that the precise package of mitigations should be subject to consultation with local communities and relevant stakeholders to ensure the most effective measures are taken forward (Para 5.37). This pre-DCO statutory consultation is the time when the mitigation package should have been set out for local communities but instead, there are large gaps in the mitigation package being presented and assessed.

Para 5.42 of the NPS states that in order to grant development consent, the Secretary of State will need to be satisfied that, with mitigation, the scheme would be compliant with legal obligations that provide for the protection of human health and the environment. The information provided to this point by Heathrow is completely inadequate to demonstrate this.

Therefore, we consider that the Applicant's Assessment falls far short of the NPS requirements.

Climate Change

The consultation claims that 'Expansion at Heathrow is not considered to materially affect the ability of the Government to meet UK carbon reduction targets.' This is highly misleading when Heathrow's own data show the massive increase in CO₂ emissions resulting from a third runway.

Heathrow is hoping that the UK government is going to allow international offsets. The consultation notes that International flights are by far the largest source of emissions. It then seeks to sidestep the issue by claiming that an international 'offsetting' scheme (CORSIA) will resolve the problem.

This is highly misleading because:

- there is no assurance that CORSIA will be implemented at all.
- Major countries as India are not committed.
- Most offset schemes do not work (that is, they do not achieve genuine net reductions).
- As emissions worldwide are reduced in accordance with the Paris agreement, there will be a rapidly shrinking source of emissions available to be offset against aviation.

The Committee on Climate Change (CCC) is clear that aircraft emissions must be counted. Given that there is no technological solution on the horizon, CCC has done some work to show how continued aircraft emissions of CO₂ can be squared with zero emissions. It concludes that 'carbon capture and storage will be needed and that, reasonably enough, the aviation industry should pay for it.

But no tax on carbon has been proposed by Heathrow, the aviation industry or government.

The above demonstrates that Heathrow's claims that third runway is consistent with climate targets is at best unsupported by evidence and at worst deceitful.

Heathrow does also not consider any of the non-CO2 impacts from its expansion proposals.

Heathrow say in the PEIR that the CCC's advice and recommendations was not policy at the time of writing the PEIR. This is now Government Policy, so the whole of Chapter 9 on Carbon and Greenhouse Gases needs to be revised throughout.

We know that the CCC has said it will be providing further advice to Government by the end of 2019. No further work should be carried out on the DCO until this has been published and the implications for aviation in the UK and specifically for Heathrow's expansion plans is clear.

Economic case

HAL now intends to phase the expansion of the airport over a 25-year period until 2050. The economic benefits will correspondingly be much more spread out and an updated assessment of them should be provided to match the phasing.

The rising costs of the project will be reflected in increased fares for passengers and this should be assessed and reflected as an adverse impact of the project, as well as any deterrent effect of increased fares and consequent reduction of expected passenger numbers at Heathrow. For the reasons set out below, no reliance should be placed on "early growth" (which relies on non-policy compliant use of the existing runway_ in the context of Heathrow's economic case.

The amounts to be paid to the Community Fund have not been specified given that the full assessment of environmental effects is not known. Further consultation should be undertaken once both these elements have been completed.

Early Growth

We are strongly opposed to 'early growth'. It is 'growth by stealth'. The limit of 480,000 flights was imposed in order to limit impacts on local communities. Heathrow is seeking to jettison this protection.

Heathrow has no mandate for early growth and there was no mention of this proposal in the Airports National Policy Statement or the Parliamentary vote. In

fact, the Government has undertaken no assessment of the impact of this early growth in terms of noise air pollution or health.

Although the current night noise restrictions would limit the numbers before 06:00 the DfT scheme runs out in 2022. The 'mitigation' for this is to be provided 'as soon as reasonably practicable' - so there no guarantee of mitigation before the new flights begin operating.

The map showing noise_exposure contours in 2025 with and without early growth is unclear, in contrast to the high production values of the consultation material generally. It is impossible to read the map to ascertain whether any particular address is affected.

The numbers affected equate to 43,300 people but respondents cannot tell whether they are in that number. Once again flightpaths are not included.

The document states that the enhanced Noise Insulation Scheme would be in place prior to Early Growth. Is that the same as the insulation itself being in place? How many homes, where, what level of insulation and what year?

The air quality assessment of early ATM growth does not include concentrations of particulate matter (PM10 AND PM2.5). Currently NO2 concentrations exceed the annual mean EU limit values and UK Air Quality Objectives at two roadside monitoring sites near Heathrow. With early growth there would be an increase 'at receptors near the airport' of 0.5mg/m³. But construction works would further damage air quality. Heathrow admits this and says that analysis combining these two factors needs to be done to understand the total impact. However, they have not conducted that analysis so cannot quantify the total impact.

The document does not go on to undertake this analysis of this additional pollution alongside the harmful air quality impacts caused by project construction. Why is an assessment of any increase in particulate matter not included?

Heathrow says it intends to define specific limits (for e.g. noise, air quality, carbon and surface access) which early ATM growth would need to observe, but Heathrow does not specify what these limits should be.

The ANPS only refers to additional capacity (i.e. more flights) that would occur as a result of building the 3rd Runway and associated infrastructure such as another terminal or reconfiguration of existing terminal facilities. The additional 25,000 flights would be introduced prior to any 3rd Runway related infrastructure works have been completed. Therefore, it is not clear how these additional flights can be covered by the development outlined in the ANPS.

The DCO application should not be allowed to include a proposal to that helps to increase flight numbers on the existing runways without implementing ANPS related infrastructure development.

At no point in the debate on the Airports NPS were MPs told about Heathrow's intentions to expand operations on the existing runways. MPs therefore did not have an opportunity to hear about or question this issue during the debate prior to the vote.

Heathrow is intending to include an increase in 25,000 flights using its existing runways in its DCO application. There is no policy support for this – the ANPS only covers a new runway at Heathrow, and the policy to make best use of existing runways applies to other airports.

Any increase in capacity by an additional 25,000 annual movements would breach the current cap of 480,000 which was put in place as a planning condition at the time of the Terminal 5 permission. Therefore, if Heathrow wishes to increase ATMs on the existing runways, the appropriate route to attempt to do this would be via submission of an application to the Local Planning Authority (LB Hillingdon), not by using the DCO process.

Construction

Heathrow admit that there will be negative effects on recreational spaces and routes during construction yet does not go into detail as to precisely what these are.

The proposals included in this section are generic with no detail, The consultation should make clear that the precise impacts will be communities around the airport and what Heathrow is proposing to deliver in terms of mitigation.

Heathrow also admit that other construction activity, including additional trips produced by construction vehicles and workforce travel, may also lead to disruption for travellers.

The masterplan reveals that construction activity and the construction workforce near local communities close to the site boundary or construction traffic routes may affect health and wellbeing.

During construction, noise will significantly affect some residents, schools and places of worship in areas closest to the new runway.

Construction will result in the loss of some habitats across the area, including within the Colne Valley Regional Park, Staines Moor Site of Special Scientific Interest and a number of Local Wildlife Sites. This habitat loss will also result in wildlife being lost or displaced from areas on which they have depended for foraging, sheltering or as movement corridors.

Specifically, it is particularly concerning that the project will result in the loss of protected species at Chilterns Beechwoods SAC.

The construction cumulative GHG emissions for the modelled scenario from 2022 to 2050 result in 3.70 MtCO₂e additional carbon over the 29 years.

Natural Environment

The proposals will cause the loss of approximately 1,300 acres of Green Belt of which approximately 900 acres is within the Colne Valley Regional Park. There is nothing about the expansion plans that can help to rectify this destruction.

The mitigation and compensation fall well short of what is required to offset the adverse effects arising, including

- Poor recognition of the role of the natural environment in impact assessments and in HAL's 'Environmentally Managed Growth' / Heathrow 2.0.
- Lack of 'landscape-led' design and failure to create attractive river corridors that function in a natural way, or replicate that in an acceptable fashion
- The degree of uncertainty that remains around how the diverted rivers will function is very significant and the masterplan cannot be fixed whilst this remains.
- Poor connectivity for walking and cycling routes within the 'masterplan' zone and failure to create attractive networks to link further afield
- Adverse effects of traffic associated with construction and the expansion within villages near to the areas under development
- Worsening of green infrastructure provision compared with the masterplan appended to the ANPS, occurring in a particularly narrow part of the Green Belt
- The scale and duration of construction compromise the Colne Valley Park's environment - with some sites assuming a degree of permanence.

Conclusion

Heathrow should already have implemented a range of mitigation measures to improve the quality of the environment for the many people already affected by its activities. These include:

- predictable and consistent respite from aircraft noise;
- a night flight ban of a minimum of 8 hours;
- and a meaningful ban on noisier plans.

The promises of limited mitigation measures in exchange for a huge expansion is not a fair exchange for the overall deterioration of the quality of life of multiple communities.

Owing to the absence of precise flight paths and comparative maps for existing aircraft operations, the real impact of the proposals on the community remains unclear.

There is significant potential for actual airspace changes to be significantly different from those included in this consultation. Communities will be exposed to multiple airspace change scenarios in a very short period of time.

This will have a significantly negative impact on the quality of life of millions of people. Yet, the health and environmental impacts of aviation expansion and the introduction of highly concentrated flight paths have not been adequately addressed.