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CABINET

Date: **THURSDAY, 26 SEPTEMBER 2019**

Time: **7.00 PM**

Venue: **COMMITTEE ROOM 6 - CIVIC CENTRE, HIGH STREET, UXBRIDGE**

Meeting Details: Members of the Public and Media are welcome to attend this meeting and observe the public business discussed.

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To all Members of the Cabinet:

Ray Puddifoot MBE (Chairman)
Leader of the Council

David Simmonds CBE (Vice-Chairman)
Deputy Leader / Education & Children's Services

Jonathan Bianco
Finance, Property & Business Services

Keith Burrows
Planning, Transportation & Recycling

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Published:
Thursday, 19 September 2019

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Putting our residents first

Lloyd White
Head of Democratic Services
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Notice

Notice of special urgency decision to Cabinet

Item 5: Heathrow Airport Expansion Consultation

In accordance with the Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) Regulations 2012, 28 clear days notice of a decision on this report, to be considered by Cabinet on 26 September, was not practicable.

This report has also been circulated less than 5 working days before the Cabinet makes any decision on the matter and will only be considered if approved at the meeting by the Chairman (Leader of the Council).

Under special urgency rules in the Council's Constitution, the Chairman of the Executive Scrutiny Committee has kindly agreed that a decision on this matter can be considered at this Cabinet meeting because it is urgent and cannot reasonably be deferred.

Timings for this report were dependent on when the Council's consultation response was to be submitted, with a deadline of 13 September. The urgency is so the Council can note in a timely way the Council's response to this key consultation for the Borough.

Notice of the Council's intention to hold this meeting (part in private) is set out on the main Cabinet Agenda A for this meeting.

Issued: 19 September 2019
London Borough of Hillingdon

Agenda

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HEATHROW EXPANSION - RESPONSE TO HEATHROW AIRPORT LIMITED'S AIRPORT EXPANSION STATUTORY CONSULTATION

Cabinet Member	Councillor Ray Puddifoot MBE
Cabinet Portfolio(s)	Leader of the Council
Officer Contact(s)	Raj Alagh, Chief Executive's Office
Papers with report	**Appendix 1** - Response from the London Borough of Hillingdon to Heathrow Airport Limited's Statutory Consultation. **Hard copies of this will be circulated to Cabinet and Executive Scrutiny Committee, with a reference copy in Group Offices.**

HEADLINES

Summary	This report sets out details of the Council's response to Heathrow Airport Limited's June 2019 Airport Expansion Statutory Consultation.
Putting our Residents First	This report meets the Council's objectives of our people and our natural built environment. It also helps to demonstrate that the Council is doing all that it can to protect its residents from proposed Heathrow expansion.
Financial Cost	None directly arising from this report.
Relevant Policy Overview Committee	Residents, Education and Environmental Services
Relevant Ward(s)	All wards

RECOMMENDATIONS

That Cabinet:

1. **Notes the contents of the report.**

2. **Endorses the Council's response dated 13 September 2019 to Heathrow Airport Limited's June 2019 Airport Expansion Statutory Consultation.**

3. **Reaffirms the Council's commitment, working either alone, or in conjunction with partner authorities and others, to take all necessary action, including pursuing appeals to the appellate courts in relation to the current legal challenge, and commencing further separate legal challenges, if appropriate, to oppose the Government's proposals to expand Heathrow Airport and it confirms that the existing delegated authority to the Deputy Chief Executive and the Corporate Director of Residents Services and the Borough Solicitor to formally implement any actions directed by the Leader of the Council is to remain in place.**

Reasons for recommendation

Heathrow expansion will have a devastating impact on the Borough and its local communities. It is important that the Council responds robustly to Heathrow Airport Limited's [HAL] expansion proposals for the purpose of not only pointing out the very significant flaws in its statutory consultation but also to evidence this to the Courts should it prove necessary to do so in the event that a future legal challenge is pursued by the Council in relation to the Development Consent Order [DCO] process.

Alternative options considered / risk management

The Council could decide not to respond to this consultation. However, this is not considered to be a feasible option due to the highly unsatisfactory nature of the consultation and also the very significant adverse impacts HAL's proposals have on the Borough and its residents.

Policy Overview Committee comments

None at this stage.

SUPPORTING INFORMATION

Background

The Airports National Policy Statement [ANPS]

1. On 25 October 2016, the previous Government endorsed the Airport Commission's conclusion, as set out in its Final Report dated July 2015, that the case for airport expansion in the South East of England had been properly made out and it therefore announced that its preferred scheme to meet the need for new airport capacity was a Northwest Runway [NWR] at Heathrow Airport. This was in accordance with the Airport Commission's recommendation.

2. The previous Government decided that a National Policy Statement was the most appropriate mechanism for putting into place the necessary planning framework for a new runway at Heathrow on the basis that it falls within the category of a Nationally Significant Infrastructure Project within the meaning of the Planning Act 2008. An alternative approach would have been to use the Hybrid Bill process which was favoured for the development of Phase One of the HS2 scheme.

3. The current Government undertook two public consultations, the first in February 2017 and the second in October 2017, in accordance with the requirements of the Planning Act 2008. Consultees were asked for their views on the draft ANPS which the Government had produced. There were a total number of 72,239 responses to the February 2017 consultation and 11,028 responses to the October 2017 consultation.

4. The Council made robust responses to both sets of consultations, which were formally approved by Cabinet.

5. On 5 June 2018, the then Secretary of State for Transport [SST] laid the final proposed ANPS before Parliament, together with a set of supporting documentation, in readiness for an impending vote in the House of Commons.

6. The vote in relation to the proposed ANPS took place on 25 June 2018. MPs voted in favour of the ANPS by 415 votes to 119, a majority of 296 with support from across the House.

7. On 26 June 2018, the SST designated the ANPS under section 5 of the Planning Act 2008. It sets the policy framework for Heathrow expansion. On the same day, the Department for Transport published:

- A post adoption statement titled, *"The Airports National Policy Statement: Post Adoption Statement"* setting out how environmental considerations and consultation responses were integrated into the final ANPS; and

- A relationship framework document, setting out how the Department for Transport and Heathrow Airport Limited [HAL] would work together to achieve additional airport capacity through airport expansion, necessary airspace modernisation and related matters.

The Legal Challenges

8. There is a strict six week time limit, which ran from the date of the designation of the ANPS [26 June 2018], to issue judicial review proceedings. The Council. acting with a consortium of other local authorities, Greenpeace and the Mayor of London commenced such proceedings in August 2019, arguing that the ANPS was unlawful and should therefore be quashed. There were four other judicial review claims which were all heard by the Divisional Court [a High Court Judge sitting with a Court of Appeal Judge] between 11 - 22 March 2019.

9. Unfortunately, all the judicial review claims were dismissed by the Divisional Court but all the parties [with the exception of one litigant in person] requested permission to appeal directly to the Court of Appeal which was granted. All the appeals will be heard by a three Judge Court of Appeal which will sit for a total of six days between 17 - 25 October 2019.

10. The Council is pursuing two specific grounds of appeal; Habitats and Strategic Environmental Assessment [SEA]. With regard to the Habitats ground, the Council, in simple terms, will be arguing that Gatwick was unlawfully ruled out as a proper alternative to Heathrow under the Habitats Directive but not under the SEA Directive. The Habitats Directive provides for a scheme of strict protection for European protected species.

11. As far as the SEA ground is concerned, the Council will argue that the Government failed to consult properly on noise by excluding those people who will be significantly affected. It was not possible to assess the noise impact for communities based on actual flight paths as these were not known. A further argument which will be pursued is that the Government failed to consider the effect of expansion on local plans and local environment strategies such as the Hillingdon Local Plan and the London Environment Strategy.

12. The Council will, once again, be asking the Court to quash the ANPS.

The DCO Process

13. The ANPS is not an end process in itself, as it does not confer a consent to either construct or operate any development. Instead, it sets a series of policy tests that must be met in order for development consent to be obtained. If they are not met, then depending on the nature of the test contained in the ANPS, development consent may be legitimately refused.

14. It is for a private developer to make an application for development consent to the Planning Inspectorate, which acts on behalf of the SST, under the Planning Act 2008. Development consent is another name for planning permission and it is required for Nationally Significant Infrastructure Projects such as Heathrow expansion The Council is of course the relevant planning authority.

15. Although HAL is the Government's preferred developer, any prospective developer can make an application. Indeed, the Arora Group intends to submit its own DCO application for all parts of the NWR Scheme, other than the actual runway itself. It is known as the 'Heathrow West Scheme' and it would compete with some elements of HAL's Scheme but it would also have its own unique features. Essentially, the Arora Group's Scheme would rely upon HAL delivering and operating the third runway, together with all the associated infrastructure, and the Arora Group's focus will be on redesigning Terminal 5.

16. The Arora Group has publicly stated that it intends to submit a DCO application in September 2020. Given that HAL is also intending to submit its own DCO application in 2020, this will have the effect of significantly increasing the overall complexity of the DCO process, as two competing applications will effectively have to be considered alongside each other. This is unprecedented and runs contrary to the whole purpose of the DCO process which is intended to speed up the determination of major infrastructure projects through an expedited decision making route.

17. To add further to the complexity, proposals have also emerged to expand Luton Airport to allow for an increase in passenger numbers and more significantly, Gatwick intends to change the use of its existing emergency runway to a permanent one which effectively means that there will be a second runway. This has a number of significant possible ramifications such as increased congestion on both the road and public transport network, an increased inability to meet climate change targets and a further worsening of air quality and noise levels. Moreover, further pressure will be brought to bear on airspace which is already congested and this in itself will require high level intervention from the Civil Aviation Authority (CAA) and in all likelihood will result in an entirely new approach to airspace management.

18. When taken together, the possible expansion of three major airports in the South East would have the cumulative effect of constraining flight paths for the different airports which means that more residents and communities would experience new and additional noise impacts which would negate the scope for introducing primary form mitigation through, for example, varying flight paths. This will have significant implications for Hillingdon and its inhabitants.

HAL's Non-Statutory Consultations

19. HAL has previously undertaken two consultations, both of which are non-statutory in nature. The first, 'Airport Expansion Consultation One and Airspace Principles' ran from January to March 2018 in which HAL sought views on its emerging proposals in terms of what the expanded airport could look like, how it might operate, and how HAL might best mitigate against the potential impacts, including proposals for compensation and noise insulation. The Council did not respond to this consultation.

20. The second, 'Heathrow Airspace and Future Operations Consultation', ran from January to March 2019. HAL consulted on its future operations and airspace changes for an expanded Heathrow. It presented airspace design envelopes [the geographic areas where flight paths could be positioned in future] and asked for comments on any local factors which HAL should consider when designing new flight paths to and from Heathrow. HAL also asked for comments about the ways in which it could operate the runways for an expanded Heathrow, including how it could provide breaks from aircraft noise, and how it should manage night flights in the future.

21. The Council did respond robustly to this particular consultation and its response was endorsed by Cabinet at its meeting on 14 March 2019.

HAL's Statutory Consultation

22. The DCO process places great importance on engagement with stakeholders and residents. A prospective developer has to comply with certain pre-application steps under the Planning Act 2008 and these include statutory consultation.

23. HAL therefore launched 'The Airport Expansion Consultation' which ran from 18 June to 13 September 2019 and which, in general terms, requests comments and feedback on its proposals for the future layout of the airport, including the new runway and other airport infrastructure such as terminals and road access.

24. More specifically, the Consultation seeks views in relation to HAL's proposals and approach in relation to the following four areas:

(i.) The Preferred Masterplan for expansion and how the airports growth will be phased to achieve it;

(ii.) Plans to operate the future airport: how the future three runway airport will be created, including important elements such as night flights and alternation, as well as how potential additional flights before the new runway opens could be operated on the existing two runways;

(iii.) The assessment of effects of the airport's growth; its preliminary assessment of the likely effects of expansion on the environment and local communities;

(iv.) Plans to manage the effects of expansion; its proposals for managing the effects of expansion and in particular, its proposed mitigation.

25. HAL formally consulted a number of interested parties including landowners, local communities, local authorities and other statutory consultees such as Natural England, Historic England and the Environment Agency. The CAA was also consulted. HAL says that this statutory consultation builds on its two previous non-statutory public consultations.

26. HAL issued a total number of 148 documents, running to thousands of pages, which have been arranged under the following headings:

- Overview and Summary;
- Construction;
- Environment;
- Local communities;
- Transport;
- Mitigation and Compensation;
- Preferred Masterplan;
- Runway Operations;
- Property Policies.

27. Each document in itself is voluminous; for example, the Environment Chapter includes an Environmental Report which consists of 3 volumes. Volume 3 alone contains 20 separate appendices consisting of 5,650 pages.

28. The way in which HAL has produced the consultation documentation is far from being user friendly and officers have found it very difficult to navigate their way through it.

The Council's Response to the Consultation

29. The Council submitted its response, which runs to exactly 250 pages, to HAL on 13 September 2019, the date when the consultation closed. It is an extremely robust response and it needed to be as Hillingdon is most affected by the expansion proposals, it is the relevant local planning authority and it may also need to produce the response for the scrutiny of a Court in the event that the Council decides to bring a future legal challenge in relation to the DCO process.

30. The full consultation response is attached as Appendix 1 to the report. It is broken down into 21 separate chapters which can be summarised as:

- The Council's Position on Expansion;
- Executive Summary;
- General Comments;
- Early Growth - 25,000 Extra Flights;
- Accommodating Heathrow Expansion in Hillingdon;

- Community Impacts;
- Community Impacts - Schools;
- Surface Access and Highways;
- Air Quality;
- Noise;
- Biodiversity;
- Heritage;
- Water Environment;
- Socio Economics;
- Land Contamination;
- Landscape;
- Equality Impact Assessment;
- Health Assessment;
- Habitats Assessment;
- Compensation and Compulsory Acquisition;
- Additional Topics

31. The Leader of the Council has approved the response and Cabinet is now being asked to endorse it.

32. It is simply not possible to fully capture the Council's response in the report but the key points can be summarised as follows:

(i). In spite of the sheer volume of documents produced by HAL as part of the consultation, vital and important information is missing across the whole range of topic areas. This has significantly impaired the Council's ability to respond effectively and it has served to undermine the entire consultation process and expose it as disingenuous and lacking credibility.

(ii). For the first time, a true picture has emerged of the very significant harm which an expanded Heathrow will cause. The disbenefits of expansion are now clearer and they easily outweigh the perceived benefits which were grossly exaggerated in the first place.

(iii). HAL is proceeding with its expansion plans, irrespective of the ongoing legal challenge which is ultimately asking the Courts to quash the ANPS. The DCO process should therefore be halted now or HAL, as a minimum, should allow for an independent review of its proposed scheme to be undertaken immediately.

(iv). The proposed 4 year construction programme is simply not achievable and an honest and realistic phasing plan and timetable needs to be issued by HAL.

(v). HAL's criticisms of the Council's lack of engagement with it are misconceived and amount to nothing more than a smokescreen for HAL's own shortcomings in the way in which it has approached and handled this consultation.

(vi). HAL's Early Growth proposal means that, starting in 2022, the number of flights would increase by 25,000 from the current capped 480,000 a year to 505,000 a year by 2025. This will

bring more noise to many thousands of people who will be newly exposed and it will also result in increases in air pollution levels.

(vii). There will be a significant impact on the future of land use in Hillingdon over a number of decades. There has been frustratingly little evidence and detail provided in relation to areas of Green Belt, Open Space and Best Most Versatile agricultural land whilst in other areas the evidence presented by HAL suggests that there will be a departure from the information presented in the development of the ANPS in relation to the creation of new jobs and the need for new homes.

(viii). Expansion will result in the loss of 739 homes in Longford, Harmondsworth and Sipson.

(ix). Harmondsworth Primary School will be demolished but there will also be a substantial impact on two other schools, Heathrow Primary and William Byrd Primary. Expansion will also have a damaging impact on five more primary schools and one secondary school in the borough.

(x). Important information in relation to the traffic modelling process has been withheld from the Council. This means that the surface access impacts of the scheme cannot be interrogated and the likely impacts and specific locations of concern cannot be identified.

(xi). The consultation documentation has not demonstrated compliance with air quality limits and air pollution will worsen for a substantial number of people, both in the construction and operation phases, over a prolonged period of time.

(xii). In the absence of information on detailed flight-paths, there can be no certainty as to the impacts of noise in regards to who will be impacted, the extent of the noise, the frequency of the over-flights and the duration of the daily exposure. HAL has appointed its own body, the 'Noise Expert Review Group' but the Council has no trust in it and it is therefore imperative that a fully functioning independent body is in place to assess and provide proper advice on the true noise impacts associated with an expanded airport.

(xiii). The biodiversity impacts and subsequent assessment of impacts can only be determined following the completion and disclosure of a full suite of survey work. Absent this information, the DCO proposal, at this stage, cannot be properly interrogated with regard to biodiversity but it is obvious to the Council that it will, in any event, have a devastating impact.

(xiv). The direct impacts of the DCO proposal on the heritage assets in Hillingdon are wholly unacceptable. Longford, followed by Harmondsworth and Sipson, will be the most effected with Harlington and Cranford impacted to a lesser degree. These villages will be altered forever and the viability of their listed buildings thrown permanently into doubt by the drastic change to their settings.

(xv). The Council is the Lead Local Flood Authority for most of the area the expansion project will cover. The DCO project will permanently remove significant lengths of watercourse within the Colne Valley but the assessment undertaken by HAL provides insufficient information on the consequences of this action, and it also fails to demonstrate that appropriate monitoring and mitigation will be in place. Furthermore, HAL has failed to apply the correct flood risk and drainage

methodologies and therefore it has fundamentally disengaged with the important objective of avoiding areas at risk of flooding.

(xvi). HAL's approach to socio-economic impacts is inconsistent, unclear and contradictory. For example, the ANPS emphasised the local benefits with over 114,000 new local job opportunities created. This consultation has produced a significantly reduced figure of circa 60,000 nationwide.

(xvii). It is anticipated that many environmental issues associated with land contamination will be encountered during the course of developing a new runway and associated infrastructure. The Council will need to be fully satisfied, applying a precautionary approach, that human health is not put at risk. The confusing cross referencing of details provided within the consultation documentation prevents effective scrutiny, whilst the non disclosure of vitally important desk top information and early investigative work removes scrutiny altogether.

(xviii). The landscape will be altered to the extent there will be limited, or potentially, no discernible borders, between urban areas and the DCO project will remove the West London green lung that separates it from Surrey, Berkshire and Buckinghamshire.

(xix). HAL has undertaken an Equalities Initial Findings exercise. The Council questions the robustness of the evidence base for the findings and wants to know what further steps HAL is seeking to take for the purpose of engaging with people with protected characteristics, and in particular those from BAME communities, who are both disproportionately and differentially affected by the expansion proposals.

(xx). Health is inextricably linked with noise and air quality. The proposed expansion has the potential to inflict a very significant deterioration in the health of the local population. However, the precise impacts on health cannot yet be quantified; this is due firstly, to the lack of information in the voluminous and inaccessible format of the consultation documentation and secondly, because insufficient consideration has been given to the importance of protecting Hillingdon’s natural environment and biodiversity.

(xxi). The consultation material does not contain an "appropriate assessment", as defined by the Habitats Regulations, but provides a further screening report that confirms that expansion will have a likely significant effect on European Designated Conservation Sites. Furthermore, there appears to have been no assessment of alternative scheme designs in reaching the conclusion that the one presented is the only option available. This approach of settling on the design of the scheme prior to understanding the impacts is not compliant with the law.

(xxii). The then SST, at the time of his announcement in October 2016 that the Government would be proceeding with the NWR option, promised a set of "world class compensation measures". The proposals for mitigation and compensation, as set out in the consultation documentation, are at best vague and ambiguous in a number of respects and there is no indication to suggest that this promise will be honoured.

Next Steps

33. HAL is required to compile a report explaining what consultation it has carried out to inform development of the DCO project. The report must also explain how HAL has taken into account the feedback it has received from its pre-application consultation and engagement and how this feedback has helped to shape and develop the project. The consultation report, as it is known, will be submitted to the Planning Inspectorate together with HAL's application for a DCO, and a suite of other prescribed documents.

34. Once the application has been made, the SST has 28 days to consider whether or not to accept it. To do so, he must be satisfied that the application is of a satisfactory standard and that HAL has fully complied with the pre-application procedure. In particular, the SST must have regard to the consultation report and the adequacy of consultation responses received from local authority consultees.

35. If the application is accepted, the SST must invite relevant local authorities [which would of course include the Council] to submit a local impact report, which will give details of the likely impact of the proposed development on the authority's area.

36. Following acceptance of the application, the SST must decide how the application should be examined; by a single examining inspector or a panel of between three and five inspectors who are all specialist planning inspectors.

37. The examination in public process is similar in nature to the one which was recently conducted in relation to the London Plan.

38. The examination must be completed within six months of the preliminary meeting. The examining authority's report must be prepared and submitted to the SST within three months of the completion of the examination. The SST must then decide whether to issue a DCO within three months of receiving the report. HAL anticipate that this decision will be made in 2021 although, as previously indicated, the SST will have to contend with the unprecedented position of having to also make a decision in relation to the Arora Group's DCO application which could have an impact on the timetable.

39. If the SST decides to grant development consent in relation to Heathrow expansion, then, subject to his approval, a final airspace change submission would be submitted to the CAA following consultation. This consultation is programmed to take place in 2022 and it would seek views in relation to the airspace change required for a three runway Heathrow, including the routes.

40. Finally, it is anticipated that the CAA decision on airspace change would be made in 2023 although it is of course possible that there may be some slippage in this timetable.

Financial Implications

There are no direct financial implications arising from the recommendations contained in the report.

RESIDENT BENEFIT & CONSULTATION

The benefit or impact upon Hillingdon residents, service users and communities?

Proposed Heathrow expansion, together with Phase One of the HS2 scheme, are the most significant and devastating set of Government proposals facing the Council and its residents and communities. Cabinet approval of the recommendations is an important part of the process in terms of the Council's continued opposition to Heathrow expansion.

CORPORATE CONSIDERATIONS

Corporate Finance

There are no direct financial implications arising from the report. However, the Council has established a contingency fund for opposing expansion at Heathrow. This is reviewed annually as part of the MTFF process and currently stands at £897k, with a recommendation to allocate £52k of this sum being considered as part of the Month 4 Budget Monitoring report elsewhere on the agenda for this Cabinet meeting.

Legal

The Borough Solicitor is the author of the report and all necessary legal implications are therefore contained within the body of the report.

BACKGROUND PAPERS

Nil

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HILLINGDON
LONDON

Stephen Allen
Town Planning Manager
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Middlesex TW6 2GW

Via e-mail Stephen.Allen@heathrow.com
feedback@heathrowconsultation.com

13 September 2019

Dear Stephen

HEATHROW CONSULTATION RESPONSE

Please find attached a copy of the Council's response to the Heathrow Expansion consultation.

The Council is still awaiting the response from the Greater London Archaeological Advisory Service (GLAAS) and therefore may provide additional comments with respect to this topic in due course.

It is also noted that there are a series of consultation questions that HAL are seeking answers to. For avoidance of doubt, the Council considers our response comprehensive and consequently there is no separate commentary relating to those questions.

Should you wish to discuss the contents of the response further, please do not hesitate to contact me using the details at the foot of this page.

Yours sincerely

Ian Thynne
Planning Specialists Team Leader

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Heathrow Airport Expansion
Statutory Consultation

Response by the London Borough of Hillingdon
September 2019

The level of information contained within this consultation is poorly presented and insufficiently evidenced. Therefore Hillingdon Council reserves its right to raise new and/or further concerns or objections on the submission of the development consent order when new and additional information and supporting evidence is presumably made available.

In addition, the responses within this report are without prejudice to any ongoing legal challenges to the adoption of the Airports National Policy Statement (June 2018).

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1. The London Borough of Hillingdon's Position on Expansion

1.1. Introductory Comments

1.1.1. This consultation has required Heathrow Airport Limited ["HAL"] to disclose for the first time, a picture of the true harm of expanding Heathrow. However, it is noted that significant amounts of information are available, but appear to be withheld, which suggests that the potential harm caused by Heathrow expansion will be even worse than feared.

1.1.2. It is of fundamental concern that the perceived economic benefits are greatly diluted from those that were presented to MPs of all parties at the time of the Parliamentary vote in June 2018.

1.1.3. It is in the context that the economic benefits outweigh the disbenefits that the case for expansion has, and continues to be made, by Government. The Council considered, at the time of the Government's decision to proceed with expansion, that the alleged benefits in the Airports National Policy Statement ("ANPS") would not outweigh the sheer scale of harm caused but now it would appear that these benefits were grossly exaggerated in the first place. This consultation demonstrates that the social and environmental harm of expansion is far greater than that allowed for in the ANPS, whilst the justification and rationale for proceeding with the project has diminished dramatically.

1.1.4. For example, the ANPS emphasised the local benefits with over 114,000 new local job opportunities to be created. This consultation has significantly reduced this figure to circa 60,000 nationwide.

1.1.5. Over 700 homes in the borough will be directly lost to expansion with thousands more impacted to the extent that many residents will be forced to leave their areas and long standing communities will be destroyed. In addition, the sheer scale of the destruction and loss of open space, vital Green Belt land, the mitigation secured at the time of the Terminal 5 development and highly valuable recreational land in areas already in short supply, cannot be understated.

1.1.6. Further adverse impacts will include adding increased congestion onto a road network already at full capacity, additional air pollution exacerbating existing harmful levels and new noise impacts. These will all significantly add to the current environmental burden within Hillingdon. The actions currently being

taken by the appropriate bodies, at both a local and a regional level, to improve the health and wellbeing of communities will be completely negated by the additional detrimental impacts arising from expansion of the airport.

1.1.7. This consultation was an opportunity for HAL to respond positively to the challenges and requirements laid down by the ANPS; challenges including surface access solutions, air quality management at appropriate levels, a fair assessment on noise, appropriate delivery of mitigation to properly address the substantial harm and the need to fully demonstrate that proper consideration had been given to the environmental project as a whole.

1.1.8. The decision by HAL to refuse to disclose so much information on these matters, and to present little or no progress having been made, suggests that the challenges it is facing are far more daunting than it first envisaged and it gives the distinct impression that HAL is incapable of successfully delivering the Government's expansion agenda.

1.2. The Legal Challenge

1.2.1. HAL is of course perfectly aware that the Council, acting jointly with others, has brought a legal challenge in relation to the ANPS.

1.2.2. Although the Divisional Court dismissed the challenge in March 2019, an appeal has been lodged which will be heard by the Court of Appeal in October 2019. As with the challenge which was heard before the Divisional Court, the Council will be asking the Court of Appeal to quash the ANPS on the basis that it is unlawful.

1.2.3. In spite of these legal challenges, HAL is pressing ahead with the DCO process and is acting with total disregard to the possibility that the ANPS, which provides the overarching policy framework for a Development Consent Order (DCO) application, may be quashed by the Courts.

1.2.4. This demonstrates that HAL is prepared to do whatever it takes to pursue its own expansion agenda at all costs.

1.2.5. It is the Council's position that HAL should properly await the final outcome of the judicial process (allowing for the possibility of a further appeal to the Supreme Court) before it takes any more steps to progress its DCO application.

1.3. Next Steps

1.3.1. The DCO process will be highly complex and extremely resource intensive for a

whole range of public and private stakeholders. That process, including examination in public, will also be highly stressful and disruptive for thousands of people affected by Heathrow expansion. Therefore, it is imperative that HAL gets things right from the very start.

1.3.2. There is enough evidence in this consultation to suggest that very little progress has been made in terms of presenting a scheme that accords with the wishes of Parliament. Simply put, the harm has significantly increased with no obvious solutions having been identified which means that any perceived benefits of expansion have been markedly reduced.

1.3.3. If HAL stubbornly refuses to halt the project now, then it should, as a minimum, allow for an independent review of the scheme, as presented in this consultation response, to be undertaken immediately.

2. Executive Summary

2.1. The Purpose of the Consultation

2.1.1. This pre-application stage of the DCO process should enable the Council to understand the scope of the project, the work undertaken to date and a preliminary understanding of the effects of the scheme.

2.1.2. Unfortunately, the decision to withhold vital information has prevented this from being a truly meaningful exercise. However, it has not prevented HAL reaching conclusions on likely significant effects. The Council considers these conclusions to be premature and misconceived and they demonstrate that HAL has already made determinations on impacts and effects without the necessary evidence being in place to substantiate them. Vital information is missing in relation to the following (not an exhaustive list):

- Health Impacts;
- Areas of growth relied upon to justify expansion with no indication of where they will be located or when and how they will come forward;
- Contaminated Land with valuable desk top studies available but not disclosed;
- Flood and Water Management with survey data available but not disclosed to the Council even though it is the Lead Local Flood Authority;
- Surface Access with a decision taken not to disclose information to the Council as a highways authority;
- Heritage with desk top surveys undertaken but not provided;
- Ecology with vital supporting surveys withheld;
- Economic growth with information presented in the last two weeks of the consultation timeframe, thereby not informing the Council's assessment;
- Noise with meaningful flight path data entirely absent;
- Air quality with key aspects on modelling data not made available.

2.1.3. The Council cannot understand why so much information, which is stated to have been collated, has not been made available. This would have made for a far more credible consultation exercise. Quite frankly, HAL's approach is disingenuous and gives the distinct impression that it is nervous of "being found

out".

2.1.4. In some instances, information has not yet been collected, for example intrusive land contamination investigations. This is perfectly understandable; however, what is not understandable that information collated to date is not presented, for example the desk top studies on land contamination. Nor is it acceptable that the consultation still provides conclusions on the effects of the proposed scheme without the supporting evidence being in place.

2.1.5. In short, the purpose of this consultation, which is to front load the DCO process, has been fundamentally undermined by the decision to withhold so much important information.

2.2. Consultation material

2.2.1. The project description is incomplete; the information presented provides a distinctly unclear picture of what the actual expansion project is which means that there has not been a proper assessment of the impacts of expansion at Heathrow that will occur both during the extended construction and operational phases. These impacts will be felt over a number of decades and is therefore of vital significance to the Council, its residents and communities, that they are accurately set out and are not misleading.

2.2.2. Concerns are raised by the Council throughout the response in regard to the consistency of data used, the choice of methodologies used, a lack of transparency in terms of data inputs and a lack of disclosure in key topic areas. It is essential that there is both access to, and also full transparency of, all the data which underpins such key assessment areas. This cannot be left to the DCO application stage; HAL must provide the necessary information well in advance of the DCO to provide an opportunity for stakeholders to fully understand the project. The current control over the flow of information is significant concern.

2.3. Early Growth - 25,000 extra flights

2.3.1. HAL has included a proposal for “Early Growth, increasing flights on our existing runways”. Starting in 2022, the proposal would increase the number of flights by 25,000 from the current capped 480,000 a year to 505,000 a year by 2025. This proposal will require the Air Transport Movement (ATM) cap set by the T5 decision to be lifted. HAL see the ATM cap as a major constraint on Heathrow’s operation and on the wider economic benefits that Heathrow can provide, as well as constraining consumer choice. The Council and many others see the

ATM cap as essential to managing the environmental performance of the airport. HAL intend taking this forward via the DCO process.

2.3.2. In respect of the environmental impacts, this Early Growth proposal seeks to overturn one of the key environmental protections the surrounding communities currently have i.e. a cap of flight numbers. The "Early Growth" will bring more noise to many thousands of people including some who will be newly exposed, it increases pollution at the same time the GLA zone is still predicted to be non-compliant and coincides with the construction phase and the devastating impacts this will have.

2.3.3. The Council does not believe there is any Government policy support for this proposal. The Government policy document which supports making best use of existing runways is directed at other airports, Heathrow is specifically excluded. The DCO Project is about increasing capacity provided by the Northwest Runway, therefore this proposal is not DCO related. It is an abuse of process and for the avoidance of doubt, it is stressed that the Council request this proposal is withdrawn. The Council will make representations to the CAA and DfT in this respect.

2.3.4. Finally, there is a distinct lack of credibility about how the early growth expansion and extra passengers can be accommodated at a time of significant construction disruption including countless road diversions and closures. Furthermore, there has been a failure to account for how the early growth and a significant rise in passenger numbers can be managed locally whilst hotels are to be demolished and construction workers are also expected to use 'tourist accommodation'. There is distinct lack of credibility to the claims that the airport can expand flight movements and expect an increased throughput of passengers as part of the early growth proposals whilst construction of the third runway and all it entails is ongoing.

2.4. Impact on land-use planning

2.4.1. With regard to the areas of land use planning which have been reviewed (greenbelt, open space, employment land, airport supporting development, non-airport supporting development, housing supply, minerals, agricultural land), it is clear that the DCO project will have a significant impact on the future of land use in Hillingdon over a number of decades.

2.4.2. There has been frustratingly little evidence and detail provided on impacts in relation to areas of Green Belt, open space and Best Most Versatile (BMV)

agricultural land, whilst in other areas the evidence presented by HAL seems to conflict with that which was presented in the development of the ANPS, namely a reduction in the creation of new jobs and the need for new homes.

2.4.3. For example, the methodology used to assess future housing supply needs is inconsistent with that set out in established national and regional planning guidance. HAL's approach is therefore not supported. Given that local planning authorities must use the Government's Single Methodology to calculate housing need, then this should be the method for assessing the impact of the airport expansion proposals in relation to such need. The Council therefore requests that information is provided by HAL on the impact of the DCO project on housing need for each relevant local authority using the Single Methodology so that it can be properly assessed within the context of other local and regional evidence.

2.4.4. Most worryingly however, is the failure of the Preferred Masterplan or supporting evidence to fully address the knock-on impacts of airport expansion on land use planning outside of the DCO project boundary. The inward looking approach taken in the Masterplan cannot be an appropriate response to development proposals of this magnitude and scale. HAL must address the future of areas surrounding the DCO boundary which will fundamentally change in character as a result of the many negative factors associated with airport related development.

2.4.5. In this sense, the Preferred Masterplan does not yet seem to address the requirements of the ANPS in terms of assessing and mitigating its own impact on surrounding land uses.

2.4.6. In terms of strategic planning, there has been a complete failure to provide a coherent understanding of what is required and where suggesting that Heathrow expansion will be far more impactful than presented.

2.5. Community impacts

2.5.1. The impact of expansion on long standing communities is immediately obvious. Expansion will result in the loss of 754 homes, of which 739 alone are within the London Borough of Hillingdon (444 in Harmondsworth, 285 in Longford and 10 in Sipson). The loss of these properties has long been treated as little more than an accountancy exercise with fiscal valuations placed on individual properties, whilst completely ignoring the social and health consequences arising.

2.5.2. These recent proposals are just the latest phase in this long and stressful process

for residents with no clear resolution or long term solution; even if a DCO was approved for expansion, the uncertainty and stress would continue long after construction starts.

2.5.3. Consequently, there are impacts that have been felt for a number of years without ever being properly managed or considered by HAL. This remains an ongoing concern and will be addressed directly with the Department for Transport and CAA.

2.5.4. In addition, the scope of the project does not, and cannot properly deal with community impacts, until there is absolute clarity as to what the extent of the project is, including the take up of the voluntary compensation in the wider property zone.

2.5.5. The remainder of the communities around the site of the expanded airport are predicted to be impacted by increasing levels of air pollution and exposure to both construction and operational noise from ground sources and aircraft. The cumulative impacts they will be subjected to in terms of health and well being have not been properly identified. The Council has provided detailed comments in the Compensation and Compulsory Acquisition section of this response.

2.6. Community Impacts - Schools

2.6.1. The Council has very serious concerns that insufficient consideration has been given to the potential school impacts arising from the implementation of this proposal. Should the plan progress, the scale of change is likely to seriously affect schools over a wide geographic area and in some cases, make it impossible for them to function on their current sites. In other cases, substantial investment in mitigation measures will be required to enable the schools to continue to function.

2.6.2. The consultation documents refer to the proposed demolition and relocation of Harmondsworth Primary school, since it would be under the third runway. Nonetheless, the Council believes that the proposed expansion plan would also have a substantial impact on two other primary schools, Heathrow Primary and William Byrd Primary to the extent that continued operation of these schools would be untenable. The expansion plan would also have a damaging impact on five more primary schools and one secondary school.

2.6.3. Currently, these nine schools have 4,730 total pupils on the roll, nearly 10% of all those in Hillingdon. The scale of impact is such that it could completely

undermine the Council's ability to undertake its statutory duty to provide sufficient school places for resident pupils.

2.6.4. The Council reserves its position as to whether a greater number of schools than those identified above are affected as more information becomes available on the exact future operation of the airport. It may become clear that more schools further afield will require mitigation from damaging pollution and other impacts of expansion. Furthermore, the impacts on each of the nine schools the Council has highlighted will need to be considered further, as and when more information becomes available concerning the various impacts.

2.7. Surface Access and Highways

2.7.1. The surface access implications of Heathrow expansion are of significant concern with the potential for far reaching, long term and serious consequences. In general, the road network linked to Heathrow airport is already at capacity. The DCO proposal includes the re-routing of major roads such as the M25 and the A4, and in terms of impacts will bring 13,000 extra car parking spaces, create two of the largest car parks in Europe in an area already suffering from congestion and consequently poor air quality, lorry parks, coach parks, freight increases of 50% and the movement of nearly 50million extra passengers a year.

2.7.2. It is therefore of great concern that important information in relation to the traffic modelling process has been withheld from the Council. This means the surface access impacts of this scheme cannot be interrogated, the likely impacts and specific locations of concern cannot be identified, nor the likely significant effects. The conclusions and outputs reached in the transport assessment documentation cannot be validated or verified. The Council cannot therefore provide any assistance at this stage as to whether the conclusions reached are realistic.

2.7.3. The lack of progress in relation to surface access is extremely disappointing as this was a significant point of concern through the Airports Commission work and then through the ANPS. Parliament laid down a distinct challenge to present credible solutions to the surface access problems and this consultation provided the opportunity to demonstrate progress. HAL's response has been to avoid using industry standard modelling and produce their own internal model which they have then not shared as part of this consultation. It is not possible therefore to confirm progress has been made and the failure to disclose vital information suggests that the credible solutions necessary remain unattainable.

2.7.4. This has significant consequences on the ability to consider the air quality impacts of the proposal with any degree of confidence given that the assessment of road traffic is an essential part of the assessment of air quality. The two issues are intrinsically linked.

2.7.5. It is extremely important that this information is made available prior to the submission of the DCO information. It would be unreasonable and irrational to burden the Council with countless pages of data and information all within the short window of the DCO consultation.

2.8. Air Quality

2.8.1. The DCO project is located almost entirely within Hillingdon and the documentation clearly demonstrates that the impacts from it, both in the construction and operational phases, will worsen air pollution for a substantial number of people over prolonged periods of time.

2.8.2. The comments on the approach to air quality and the initial findings must be set in the context of HAL not disclosing the traffic modelling or providing sufficient surface access information. This means the air quality outputs being presented, and the conclusions being reached, are based on unverified and unsubstantiated information.

2.8.3. Even taking this into account, the information presented has not demonstrated compliance with air quality limits and is, in the Council's opinion, therefore potentially unlawful. The mitigation measures proposed are un-quantified in terms of their potential benefits on air quality; therefore robust conclusions cannot be made in terms of their effectiveness.

2.8.4. The assessments, as presented, have failed to give weight to the significance of the detrimental health impacts arising from the increases in pollution across substantial numbers of people. The Health chapter makes clear this Proposal has the potential to inflict a massive deterioration in the health of the local population.

2.8.5. It is also noted that HAL's preliminary assessment has not properly considered the health impacts of air pollution. The focus on EU limit values and changes to levels does not account for the fact that a) the situation is already bad around Heathrow and therefore any upward change is an unwanted change in air pollution and b) that health impacts are experienced below the EU limit values.

2.8.6. The Council expects to see improvements in air quality. The PEIR has not

demonstrated an improvement in air quality as planning policy dictates it should and the implementation of the DCO Project will have eroded the health benefits that, in its absence, could have accrued to a substantial number of people.

2.9. Noise

2.9.1. The current operation of Heathrow Airport imposes unacceptable levels of aircraft noise over substantial parts of London and the surrounding home communities. There is ever increasing evidence of serious health impacts arising from exposure to aircraft noise. This evidence demonstrates a trend in adverse health effects occurring at lower levels of noise than historically allowed for; what might be deemed acceptable today is not likely to be acceptable in the years ahead. The reliance on improvements to technological advances needs to be tempered by the precautionary approach and an acknowledgement to significant harm of aviation noise.

2.9.2. The failure to synchronise this DCO process so that it is informed by the Airspace Change Process (ACP) has led to the production of a fairly meaningless assessment of the likely impacts of noise from the DCO project. With no detailed flight-paths, there can be no certainty on the impacts of noise in regards to who will be impacted, how noisy the impacts will be, the frequency of the over-flights and the duration of the daily exposure. Without these, robust conclusions cannot be drawn in regard to the effectiveness of any of the mitigation measures proposed. This is a distinct failure of the assessment process.

2.9.3. The DCO process should be halted until the full implications of the modernisation of airspace and the ACP process for an expanded Heathrow are understood and the actual impacts can be properly assessed. The Council will be making this request to the DfT and the CAA.

2.9.4. The Airports Commission recognised the lack of trust between impacted communities and how Heathrow Airport is operated. It recommended the establishment of an independent body to intervene. This independent body, ICCAN, is referred to in the ANPS which states its function is to provide independent guidance. Instead HAL has appointed its own body it refers to as independent, titled the “Noise Expert Review Group” (NERG). Its stated aim is to provide independent assurance of the scientific and policy robustness of the assessment of noise including effects on health and quality of life. It is to advise on current best practice throughout the consultation and application process.

2.9.5. The influence of the NERG is evident with suggestions such as a noise envelope which does not include a cap on aircraft movements, an option for a night flight ban which ignores the recommendations of the Airports Commission (no landings prior to 6am), the local communities seeking a decent nights' sleep (no landings prior to 7am) and instead, presents one option which refers to 5.30am. It should be noted that in reality this means communities will have flights overhead from 05.15 as the 05.30 is defined as the time the aircraft has landed and is on the stand.

2.9.6. For the avoidance of doubt, the Council does not recognise this body, the NERG, and certainly does not accept it as independent. Until a fully functioning independent body is in place to assess and provide advice on aspects such as metrics and mitigation associated with this proposal, there will remain little community trust in terms of noise. These fundamental issues cannot be allowed to continue through the DCO process.

2.9.7. It is therefore vital that ICCAN must be in the position, and given the time, to be allowed to properly inform and influence the DCO process. The Council will be making this request to the DfT and the CAA.

2.10. Biodiversity

2.10.1. The biodiversity impacts and subsequent assessment of effects can only be determined following the completion and disclosure of a full suite of survey work. This has not been provided. The biodiversity volume is essentially made up of the conclusions from surveys that have not been disclosed and information unclearly presented on small number of maps at an inappropriate and unhelpful scale.

2.10.2. The introduction of the proposal for a Covered River Corridor is nothing short of a disaster for a myriad of open water channels including highly valued main river corridors. It will sever the current ecological linkages across the Colne Valley corridor and will effectively act as a barrier across the River Colne. Given this sheer scale of harm from such a damaging proposal, the Council would have expected a robust and credible proposal to mitigate the problem, at least in part. The Covered River Corridor proposal has been accompanied by interesting rhetoric as to how a major ecosystem can continue to thrive under a runway, but the supporting evidence is shockingly substandard. The threat to a long standing and well developed ecosystem warrants a respectful response which is distinctly lacking.

2.10.3. The assessment also provides conclusions based on apparent field surveys but these are rendered meaningless without any of details of the survey work. It is stated that there has been a 56% completion of the necessary data ranging from 2017 to 2018 but none of this work has been provided. It is therefore not possible to determine whether or not the surveys were accurately undertaken, sufficiently comprehensive or suitably scoped.

2.10.4. The DCO proposal, at this stage, cannot be properly interrogated with regards to Biodiversity but it is obvious it will have a devastating impact; sadly, the non-disclosure of information means readers cannot understand the extent of devastation. The conclusions presented have to be treated with considerable scepticism.

2.11. Heritage

2.11.1. From the information provided, it is the Council's view that the direct impacts of the proposal on the heritage assets of the borough are wholly unacceptable. The demolition of one conservation area and two thirds of another with the demolition of multiple listed buildings and locally listed buildings, destruction of the surrounding historic landscapes and large areas of archaeology and the moving of the historic A4 and Duke of Northumberland's river cannot under any circumstances be supported.

2.11.2. The greatest impact will be on Longford followed by Harmondsworth and Sipson with Harlington and Cranford impacted to a lesser degree. These villages will be altered forever and the viability of their listed buildings thrown permanently into doubt by the drastic change to their settings. The Historic Environment Report provided has made absolutely no case for the substantial public benefits that are required to be demonstrated when a proposed development will lead to substantial harm of designated heritage assets. (NPPF, para 195).

2.12. Water Environment

2.12.1. The Council is the Lead Local Flood Authority (LLFA) for which most of the expansion project will be located. The documentation relating to the water environment amounts to over 2500 pages and covers 22 documents. None of this information has been provided to the Council or residents prior to the consultation, as part of any formal pre application process, or has followed best practice in providing open environmental data similar to other DCO projects. No data files have been provided to make this a more efficient process to manage.

2.12.2. The DCO project will permanently remove significant lengths of natural watercourse within the Colne valley and will take at least 5 separate rivers and merge them into a covered river corridor under the third runway, between the diverted M25 and the taxiway. The assessment provides insufficient information on the consequences of this action and fails to demonstrate that appropriate monitoring is established and that adequate mitigation is proposed. The proposals woefully underestimate the amount of land required in the draft DCO boundary to mitigate for impacts on the water environment, flood risk and drainage.

2.12.3. The proposed runway is due to be completed by 2026, before which the M25 needs to be diverted, the existing M25 needs to be decommissioned, the new river corridor needs to be constructed with enough time for habitats to establish, and flow in the existing rivers needs to be diverted, all before the earthworks for the new runway can be built. HAL's own assessment acknowledges that the timescales are likely to be undeliverable; the consequence will either be delays to the overall programme or the diversion of the watercourses before adequate habitats have been established.

2.12.4. The DCO project has failed to apply the correct flood risk and drainage methodologies. The purpose of the Sequential Test is to direct development away from areas at risk of flooding and should therefore inform design. However, in the case of the DCO project the location of the development has been chosen, some of which will be within high risk flood zones. It should not be a case of determining where the development will go and then undertaking the Sequential Test. By choosing this approach, HAL has fundamentally failed to engage with the purpose of avoiding areas at risk of flooding. In addition, current drainage proposals have failed to consider the appropriate SuDS hierarchy and best practice, particularly for surface water conveyance.

2.13. Socio Economics

2.13.1. The approach to socio-economic impacts is inconsistent, unclear, and presented according to what portrays a better outlook depending on the subject. For example, the direct job creation for the airport is stated to be in 2035 at its peak, whilst wider national growth is presented up to 2050. This makes little sense. It is noticeable that the nationwide job creation identified by HAL (65,000 by 2050) is divorced from the expectations set out in the ANPS (114,000 in the local area by 2030).

2.13.2. Given that expansion is entirely predicated on the value of the project to the UK

economy, it is essential to have a consistent and independently peer reviewed accepted position on the economic benefits of expansion. This should take place prior to any further work on the DCO.

2.13.3. As with many of the other topics, the PEIR has managed to reach conclusions without the supporting work being completed. There has also been a lack of disclosure of the supporting information that is apparently available. Consequently, much of the alleged benefits appear to be based on the successful development and implementation of the 'Economic Development Strategy' which the Council has not seen.

2.13.4. No conclusions in the PEIR can be supported whilst so much information is withheld and the primary strategy for exploiting the benefits of expansion has yet to be compiled and disclosed.

2.14. Land Contamination

2.14.1. It is anticipated that many environmental issues associated with land contamination will be encountered during the development of a proposed third runway and associated infrastructure that are being proposed to occupy a significant expanse of land adjacent to the existing airport. A great swathe of the land within the DCO boundary is former or current landfill, with land uses that pose contaminative risks, or have a history of contaminative uses.

2.14.2. The exposure of the landfill sites will most likely result in odours that will have likely significant effects in the short term (Southall Gasworks site preparation provides a suitable nearby contemporary case study). Excavating landfills increases vermin, gulls, pigeons; they are unsightly, malodorous and potentially harmful to health.

2.14.3. The Council is the lead local authority on contamination in relation to human health; consequently, the Council is the authority who needs to be satisfied, applying a precautionary approach, that the development will not put people and places at risk. The confusing cross referencing of details provided within the documents is preventative of effective scrutiny; the non disclosure of vitally important desk top information and early investigative work removes scrutiny altogether.

2.14.4. There is a suite of likely significant effects linked to contamination that impact across a range of environmental topics as well as the health assessment. The magnitude of this project cannot be overstated when considering the

implications for contaminated land. For this reason, it is extremely concerning that such little information has been provided in this PEIR even though it is allegedly available.

2.15. Landscape

2.15.1. The approach to the landscape visual impact assessment (LVIA) appears to be a superficial by the numbers approach with limited understanding of the true magnitude of change.

2.15.2. The landscape will be altered to the extent there will be limited or, potentially, no discernible borders between urban areas and the DCO project will remove the west London green lung that separates it from Surrey, Berkshire and Buckinghamshire.

2.15.3. Similarly, the airport along with the Heathrow villages, are separated from the M4 corridor and urbanised areas further north by the Green Belt. The villages are heavily impacted (one destroyed, one cut in half and the remainder having to contend with a new heavily operational runway and the Green Belt virtually removed.

2.15.4. No evidence has been provided to substantiate the findings of the LVIA. As such the Council cannot endorse or support the findings, nor can it provide a counter position whilst HAL continue to withhold important information.

2.16. Archaeology

2.16.1. The Council's archaeological advice is provided by Greater London Archaeological Advisory Service (GLAAS) which is independent of the Council. Their response is to be provided separately.

2.16.2. The Council reserves the right to provide further archaeological comments on receipt and review of the GLAAS response.

2.17. Equalities

2.17.1. HAL confidently asserts that it will ensure that the final version of the EqIA is written in a concise and easy to understand way, so as to ensure that more people can understand the changes that are being proposed and how they will affect them. It is a shame that the initial findings report does not have these characteristics; the assessment is both detailed and incomplete at the same time and is difficult to follow in certain areas.

2.17.2. The analysis undertaken by HAL shows that there are disproportionate impacts on the grounds of age, disability, race, religion or belief and sex (women) and differential impacts on the grounds of age, disability, pregnancy and maternity, race, religion or belief and sex (women). It does not identify inter-sectional impacts in spite of the data suggesting that these exist on the grounds of age and disability and in such circumstances the disadvantage that people can experience may be magnified. For example, older BAME people or children who are disabled may experience multiple effects. Nor does the assessment consider the differential effects on the grounds of gender reassignment, sexual orientation and race with regards to mental health and the effects of noise.

2.17.3. The Council notes the very low numbers of individuals/groups with protected characteristics who attended the nine community stakeholder events held by HAL in April and May 2019. It is noted that only 47 people in total attended these events and even worse, 22 feedback forms were returned.

2.17.4. In the circumstances, the Council questions the robustness of the evidence base for the EqIA initial findings and it wants to know what further steps HAL is seeking to take for the purpose of engaging with people with protected characteristics, and in particular those from BAME communities, who are both disproportionately and differentially affected by the Heathrow expansion proposals.

2.18. Health

2.18.1. Based on the current and future health status, projected demography, and given the vulnerable populations living in the vicinity of Heathrow airport, the proposed Heathrow Expansion Consultation Plan has the potential to inflict a massive deterioration in the health of the local population.

2.18.2. The determination of the exact impacts on health cannot yet be quantified; this is in part due to the lack of information in the voluminous and inaccessible format of the consultation and secondly, because insufficient consideration has been given to the importance of protection of Hillingdon's natural environment and biodiversity which is also an important resource for protecting and improving the health and well being of local communities. All endeavours being taken by the Council, working with local NHS and non-NHS partners, to improve the health of its residents will be wiped out by the detrimental impacts arising from the proposed expansion of Heathrow.

2.18.3. The additional negative health impacts of the proposed development

highlighted in this report are likely to increase the pressures on already stretched primary care services, secondary care services, urgent care and mental health and well being services, and social care through short term and long term increases in morbidity and mortality.

2.19. Habitats Regulation Assessment

2.19.1. The consultation material does not contain an "appropriate assessment" as defined by the Habitats Regulation, but provides a further screening report that confirms the project would have a likely significant effect on European Designated Conservation Sites.

2.19.2. There appears to have been no assessment of alternative scheme designs to reach the conclusion that the one presented is the only option available. This approach of settling on the design of the scheme prior to understanding the impacts is not compliant with the Habitats Directive.

2.20. Compensation and Compulsory Acquisition

2.20.1. At the outset, HAL has stated that at the heart of the expansion project is its commitment to being a good neighbour to its local communities, as well as to those further afield and to the natural habitats around the airport.

2.20.2. It is the Council's opinion that HAL has already failed in this commitment by the cavalier manner in which it has approached the issue of Heathrow expansion in Heathrow Villages. It has at all times acted in a manner which strongly suggests that such expansion is already a ''done deal''. A number of Hillingdon residents have been visibly upset by the messages conveyed by HAL which has made them fearful of losing their homes and communities which have been established over a number of years.

2.20.3. Whilst the principle of Enhanced Compensation Offers is welcomed, the Council does not agree with the 'cut off date' of 17 December 2013 and believes that it should be 26 October 2016 instead. This was the date on which the then Secretary of State for Transport made a public announcement that the Government would be proceeding with a North-West Runway scheme at Heathrow. It is submitted that the date of 17 December 2013, which was when the scheme was short-listed, is too uncertain as it was still possible at this stage that the Government could prefer one or other of the two short-listed options.

2.20.4. The then Secretary of State for Transport, at the time of his announcement in

October 2016 that the Government would be proceeding with the North West Runway option, promised a set of ''world class compensation measures''. The proposals for mitigation and compensation, as set out in the consultation documents are vague and ambiguous in a number of respects and there is no indication that they will match the promise.

3. General Comments

3.1. Overarching Observations

3.1.1. It is undeniable that Heathrow expansion will have devastating consequences for large numbers of people and communities as well as for the environment. There are uncertain and vague economic benefits that vary significantly depending on the source material, whether it is from the Airports Commission, the ANPS or this consultation.

3.1.2. The Council is opposed in principle to expansion of Heathrow airport beyond its current operating limit of 480,000 air traffic movements (ATMs), not least because these current operations are not being carried out within acceptable social or environmental parameters.

3.1.3. This consultation promotes a development that will expand existing operations from 480,000 air traffic movements (ATMs) to approximately 756,000.

3.1.4. Unfortunately, the consultation material presents an unrealistic perspective of expansion that lacks credibility. The material has clearly been rushed, is disjointed, and although extending to hundreds of documents, is not supported by substantive evidence and raw data which has inexplicably not been disclosed.

3.1.5. It also follows that the poorly developed Environmental Impact Assessment Scoping Report has not helped in terms of setting out a clear understanding of the project. Consequently, the Council is seeing information for the first time, although substantive and important details are missing. Despite the non disclosure of available evidence and the acceptance by HAL that there is a great deal of evidence collection still to be undertaken, the consultation presents a surprising level of confidence and, at times arrogance, in the conclusions reached on the impacts of expansion.

3.1.6. It also noted by the CAA, through their consultation 'Economic Regulation of Capacity Expansion at Heathrow Airport: Consultation on Early Costs and Regulatory Timetable", that the costs of the planning stage have substantially increased:

> *"We understand the main driver of the cost increase to be related to HAL not having developed a sufficiently mature understanding of the scope of work necessary to support the relatively complex planning process when it made its original Category B cost estimate."*

3.1.7. The lack of progress on the planning process is telling from this pre DCO consultation on expansion. The Council notes that HAL are intending to submit the DCO application in June 2020. This is a very optimistic timeframe if this consultation is anything to go by.

3.2. Lacking Credibility

3.2.1. The consultation material lacks credibility. For example, the image below shows a 'new' area of grassland next to what will be one of the largest car parks in Europe immediately to the south of airport and the southern perimeter road, being heavily used as a recreational area by, amongst others, families.

3.2.2. Notwithstanding the industrial feel of the area, the noise impacts alone would be a significant detriment to any prolonged use. Yet in spite of this, the image conjured appears to present a cosy picture of a country park.

3.2.3. Similarly, HAL's emphasis on a new 'multi functional green loop' (a walking and cycle route around the airport) as being a significant positive intervention, once again, has no credibility. One stretch of the Green Loop is sandwiched within metres of the realigned M25 on one side and an artificial river corridor within metres of the western boundary of the airport on the other. Describing this as a significant positive intervention is plainly wrong simply from its location alone. Once the air quality and noise impacts are factored in, then the multifunctional green loop becomes yet another unfounded aspiration.

3.2.4. Elsewhere, the consultation documentation gives the impression that the development will incorporate an abundance of further green space without acknowledging the fact that most of it already exists or is actually the relocation of mitigation that was delivered as part of the Terminal 5 development. HAL have therefore been disingenuous in the way in which they have presented this.

3.2.5. The over stated benefits of the green space, together with the clear misrepresentation of how 'green' Heathrow expansion is, sets to portray an unrealistic picture of what the effects of expansion will be in reality.

3.3. 4 Year Construction

3.3.1. The consultation states that the construction period will commence in 2022, with the new runway being operational in 2026. This programme is far more ambitious than even the HS2 and Crossrail programmes, both of which have since been paired back by realism. There is no credibility to this 4 year programme which fundamentally changes the dynamic of the DCO assessment.

3.3.2. As HAL has itself found, the scale of the construction is very complex. For example, it will require the diversion of the M25 with associated significant works, i.e. the diversion of major rivers and watercourses, with completion of the building of the runway only possible once these works are completed. It is expected there would be a requirement for a significant operational testing period which would also need to be factored in before the runway could realistically be opened. The consultation documentation does not provide confidence that this is achievable. For example, there is no clear year on year programme as to how the construction timetable can be achieved and it is apparent that the recovery of the costs to achieve is still something which needs to be agreed with the regulator.

3.3.3. The ANPS requires HAL to demonstrate that the expansion scheme is cost-efficient and sustainable and seeks to minimise the costs to airlines, passengers and freight owners over its lifetime. This starts with construction. Any knock on impacts of the costs recovery in relation to the economic benefits set out in the ANPS needs to calculated and presented alongside the above appraisal. If, for example, HAL cannot meet the 2026 deadline without incurring an unacceptable increase in airline charges, then this information should be presented now for public scrutiny.

3.3.4. Expansion at Heathrow is not the only planning issue which needs to be addressed by the Council. The expansion proposals are highly complex in nature

and cannot be considered in isolation. They will have a significant bearing on planning decisions (both development management and planning) as well as through the discharge of other statutory provisions.

3.3.5. It is therefore important that an honest and realistic phasing plan and timetable is issued by HAL to inform not just the DCO process, but also the wider decision-making responsibilities of the Council.

3.4. Project Description

3.4.1. The project description is incomplete; the information presented provides a distinctly unclear picture of what the actual expansion project entails. This is particularly evident in relation to the extent of planned future growth. It is acknowledged that Heathrow expansion will be a catalyst for wider growth, but it is not acceptable to simply ignore what this would be in terms of assessment.

3.4.2. For example, the project will lead to a net reduction in both offices and warehouses. This means that there will be an immediate shortfall to service the current operations, the implications of which are not assessed. The expansion will then generate new requirements; once again, the implications of this are not assessed. There is no information as to where all the extra warehousing, office space, hotels and other uses will be located. HAL relies on this growth as part of its economic case for expansion but it has not considered the environmental or social implications of it. It appears that HAL is content to use the alleged benefits in their assessment but expect the disbenefits to be addressed through other processes. It cannot have it both ways.

3.5. Surface Access

3.5.1. Similarly, the approach to surface access is misconceived. HAL has a very difficult task in achieving modal shift targets and its 'no more airport related traffic pledge', without any significant investment in new public transport connections, in particular railway connectivity to the west and south, is a prime example of this.

3.5.2. This issue was recognised by the Airports Commission; it is referred to in the ANPS, yet it is dismissed as not required by the DCO project. Inadequate provision not only has implications for the surrounding road network and congested public transport routes but it also has significant implications for achieving, and maintaining, the air quality at levels that will not have adverse impacts on human health.

3.5.3. The tables below use figures from across the consultation documentation. These demonstrate the alleged incredible improvements assumed in regard to transitioning passengers and staff (referred to as colleagues) to public transportation:

Passengers using public transport			
	2017	2040	Increase in usage
without expansion	38%	46%	8%
with expansion	38%	57%	19%

Colleagues using public transport			
	2017	2040	Increase in usage
without expansion	26%	28%	2%
with expansion	26%	68%	42%

3.5.4. These figures should also be taken into account in the context of the sheer scale of increase in passenger demand. Currently, there are 57m non transfer passengers which rises to 66m in 2040 without the expansion scheme, resulting in a forecasted 8% increase in passengers using public transport and just 2% for colleagues.

3.5.5. However, with the scheme, the amount of non transfer passengers rises significantly to 92m and with it there is an assumed substantial leap in the numbers of both colleagues (42%) and passengers (19%) switching to public transport.

3.5.6. The passenger and colleague modal shift to public transport for expansion is far beyond the current projections under existing operations. HAL believes it can deliver huge improvements in the use of public transport, but apparently only if

expansion occurs. If expansion does not happen, HAL does not appear to have many aspirations to improve public transport usage, just a 2% increase for airport workers.

3.5.7. This is an alarming proposition for those who live in areas of such poor air quality.

3.5.8. The credibility of these figures is further undermined by what appears to be a disproportionate increase in passengers to staff ratio. Although the consultation documents are difficult to interrogate as there appears to be a selective use of which years to best present certain data (2035 for colleague numbers, 2050 for wider job creation), it is possible to extrapolate some data as shown below:

Total Colleagues and Passengers in 2040 with and without expansion (figures not provided in documentation for 'end state' i.e. full operation on or by 2050)			
	colleagues	passengers	Ratio colleague to passenger
Without expansion (480,000 flights)	87,000	87,000,000	1000
With expansion (756,000 flights)	95,000	135,000,000	1421
	42% increase in colleague to passenger ratio		

3.5.9. It is unclear how 276,000 flights only generate 8,000 extra colleagues by 2040. The validity of these figures is further questioned when the claims about Early Growth (additional 25,000 flights prior to opening) are incorporated:

Colleagues relating to early growth	
+25,000 extra flights Total: 505,000 flights (early growth)	+5,200 colleagues

3.5.10. The number of additional colleagues is a very important consideration when factoring in impacts on the road network. Too many colleagues present a challenge for the surface access proposals with expansion; not enough colleagues demonstrate insufficient justification, in terms of the local economy and jobs, for the Early Growth proposals.

3.5.11. This results in a rather bizarre situation whereby 25,000 early additional flights creates 5,200 jobs whilst the total difference between having expansion and that of no expansion is just 8,000 in 2040 (accepting the number is higher in 2035 with expansion but then drops significantly by 2040 for reasons that are not clear).

3.5.12. Put simply, 25,000 additional flights are presented as creating 5,200 additional jobs, yet expansion with a further 251,000 flights appears to create only 2,700 additional colleagues. The comparisons are complicated by a lack of explanation in the supporting documentation, but nonetheless, there is a distinct lack of clarity and consequently the credibility of these figures is severely questioned.

3.5.13. Finally, the airport intends to create 10,000 new apprentices. How these fit within the total job creation figures clearly requires further explanation.

3.5.14. The number of jobs, the economic benefits these relate to plus the overall economic benefits of the scheme need to be clearly presented and justified. The Secretaries of State will have a duty to decide whether, amongst other considerations, the DCO application results in "*adverse impacts of the development outweighing the benefits".* (ANPS para 1.18) It is therefore essential that the DCO project clearly presents such issues.

3.5.15. For the avoidance of doubt, given the enormity of the detrimental environmental impacts on substantial numbers of people which far outweigh those of alternatives such as Gatwick, the Council expects this to be fully evidenced. This must be subject to a proper peer review with defined measurements against other operational airports to allow for direct comparisons to be made.

3.5.16. All of the above raises doubts about the impacts of the expansion and whether they have been adequately presented and assessed. Concerns raised over the consistency of data used in matters such as economic appraisal, job creation and surface access inputs used in the traffic models needs addressing. This has significance for other topics such as air quality which relies on the data from other topic areas such as traffic inputs. This requirement is set out in more detail in the following chapters.

3.5.17. It is essential there is both access to, and also full transparency of, the data which underpins such key assessment areas. This cannot be left to the DCO application; the data sharing must be carried out in sufficient time in advance in order to allow meaningful dialogue to take place for the purpose of agreeing any

issues at a time when the consultation can influence the DCO assessments.

3.5.18. It also raises significant questions about the extent of the problems that the Council may have to face in terms of accommodating more employees (i.e. through additional housing). There is also a significant question mark next to the economic assessment if the airport doesn't provide the employment catalyst that was expected. This lack of clarity cannot continue throughout the process leading to the DCO application.

3.6. Phasing

3.6.1. There is confusion in the consultation documentation in relation to what phasing actually means. Three examples are outlined below but there are others:

Confusing presentation of Phasing			
	Consultation Document	**PEIR - Traffic Users**	**PEIR - Socio Economic**
Phase 0	Up to around 2026		
Phase 1	Around 2026	2022-2026	2025
Phase 2	Around 2030	2026-2033	2027
Phase 3	Around 2035	2034-2050	2035
Phase 4	Around 2050		

3.6.2. The traffic impacts, and, in turn, the extremely important air quality effects, are intrinsically linked to a) construction activity and b) the steady growth of the airport. Identifying different phases in different topic areas therefore makes little sense and provides a confusing framework in which to assess impacts.

3.6.3. Furthermore, it is entirely unclear why the first Phase (up to around 2026) is numbered zero.

3.7. Lack of Engagement with Hillingdon

3.7.1. It has been stated throughout the consultation documentation that the development of the scheme has been problematic due to a lack of engagement with Hillingdon. This point has been raised repeatedly and has often been presented by HAL as an excuse for not being able to provide further information on key points.

3.7.2. The Council conducted a referendum on whether those in the borough support or oppose expansion of Heathrow and there was a clear consensus for the latter. Consequently, when HAL writes to the Council with generic invites to discuss expansion proposals in the absence of disclosing any specific details of the project, then this becomes an untenable position.

3.7.3. At no point up to this consultation has HAL shared any information of any note with the Council about its expansion plans. For example, this consultation was the first time HAL had disclosed to the Council the following:

- the relocation of Harmonsdworth School (in Council ownership) and other Council owned and run community facilities;
- the identification of an alternative site for Harmondsworth School on a golf course in an entirely different catchment area;
- the re-routing of the A4 through land it owns and with significant impacts on highways in the remit of the Council;
- the siting of one of the biggest car parks in Europe being located next to one of the most heavily used playing pitches in Hillingdon;
- no modelling data or detailed information on surface access despite claiming this has been shared with 'relevant stakeholders' outside of the consultation process.

3.7.4. The list of examples is significant. HAL's refusal to provide any information on the project to the Council whose borough is most impacted by expansion is entirely unhelpful and demonstrates a singular desire to control the flow of information. The only possible explanation for the decision not to disclose the information is because the Council opted not to accept non-specific invites to consultation events.

3.7.5. Even now, HAL has not disclosed important information; for example, the work undertaken with the Heathrow Strategic Partnership and also the transport modelling which is vital to understanding the impacts of expansion. HAL's control over the flow of information is counterproductive and unhelpful.

3.7.6. The Council has no doubt that HAL will seek to use the Council's 'non-engagement' against it at a later stage in the process and if this happens, the Council will not hesitate in exposing HAL's shortcomings in the manner in which it has purported to engage with it.

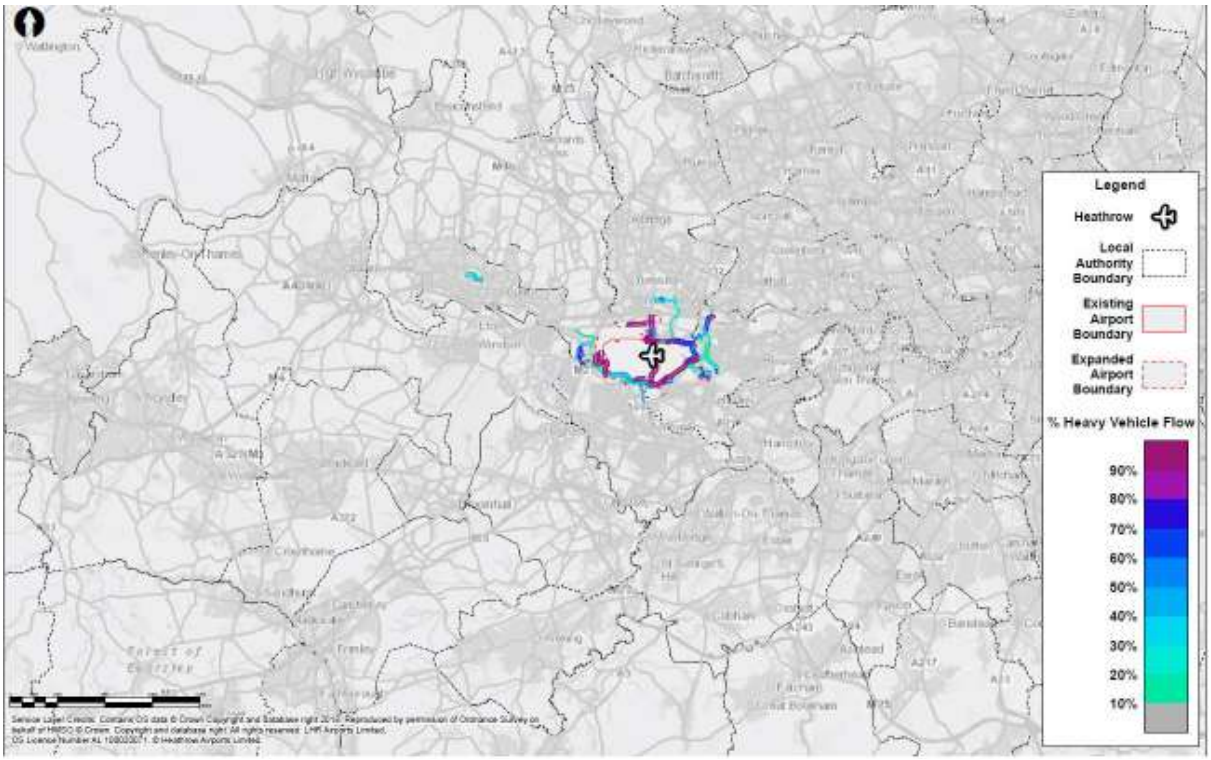
3.8. Consultation Material

3.8.1. The lack of disclosure of information by HAL is compounded by the poor quality of the information that has been made available by HAL.

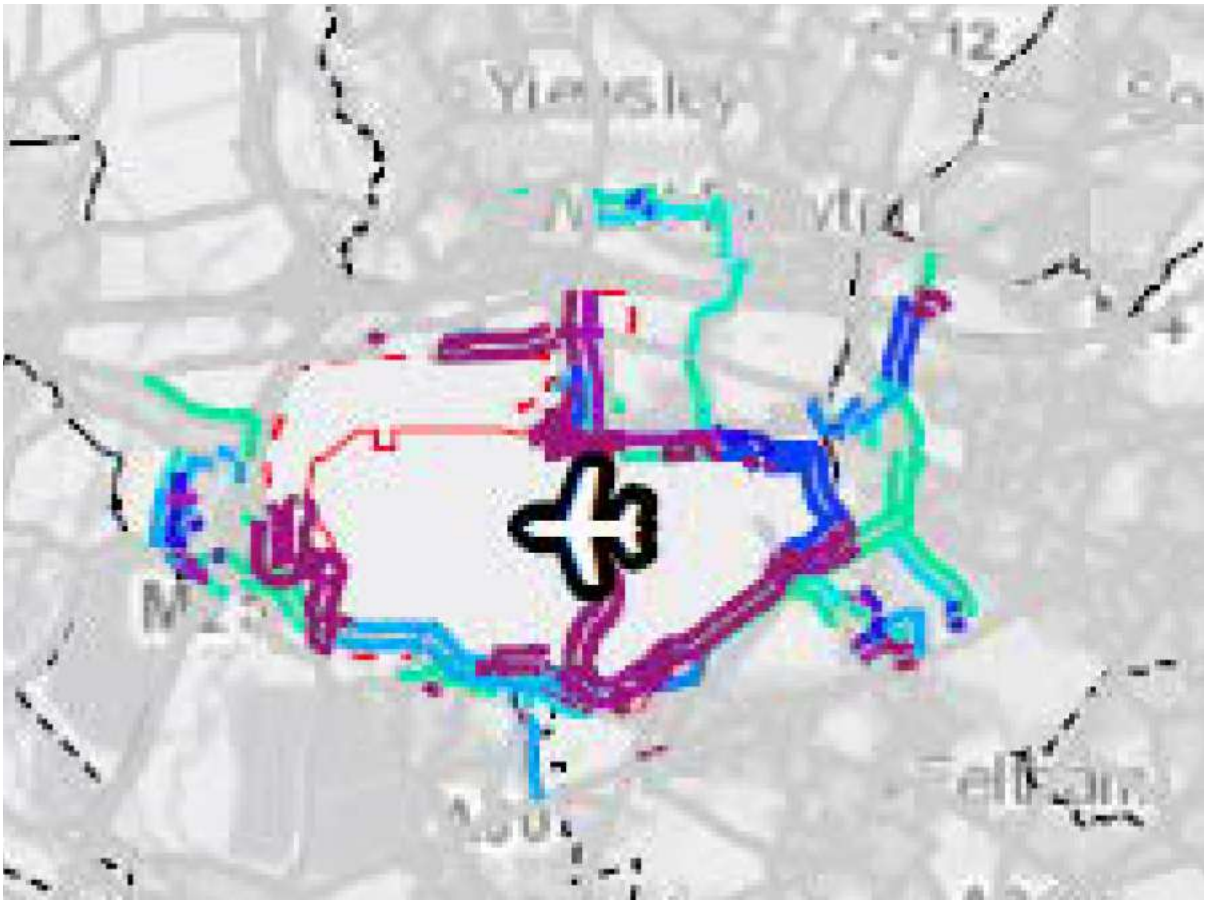
3.8.2. The Council accepts that this is a significant infrastructure project and that it will therefore be necessarily accompanied by a commensurate level of supporting information. However, the presentation of the consultation material is fundamentally flawed. There are a sprawling mass of documents available only online. A full suite of hard copies were requested but refused and hard copies of the Masterplan were provided but only in A4 form.

3.8.3. Some of the electronic files can only be properly navigated if printed. For example, the Preliminary Transport Information Reports are divided into different volumes, with each volume containing a number of different parts within one document, none of which appear on a composite contents page. Consequently, Part B of Volume 3 is page numbered 1, but commences on PDF page 107. There are 8 parts to this volume with an 80 page executive summary. Volume 5 has a 32 page summary and Volume 6 has a 92 page summary.

3.8.4. HAL has selectively presented the outcome of the undisclosed transport work. This information has been shown on maps with unhelpful scales and in entirely inaccessible ways. For example, the map below shows the roads on the whole network where HGVs will be routed with the project in place:



3.8.5. This map is unhelpful at this scale and when a reader zooms in to understand in more detail, it becomes incomprehensible.



3.8.6. Not only do the maps in the PTIR show a selective output of the modelling work,

they are of no assistance at all. These excerpts demonstrate the quality of information presented to the Council in its capacity as the highways authority, and in relation to which it has been asked to provide meaningful feedback on the transportation impacts of the scheme.

3.8.7. This very poor quality mapping for transportation impacts has made it virtually impossible to engage properly on this extremely important topic. The maps cannot be interrogated and are at an extremely unhelpful scale. For the avoidance of doubt, the Council wishes to make it very clear that, being placed in the position of being unable to make meaningful comments on the transport material, has a consequent effect on its inability to also make meaningful comments on other important topic areas such as air quality.

3.8.8. These problems have been compounded by HAL's decision not to provide supporting data and mapping files. These have been requested but refused by HAL. Datafiles allow the Council to upload mapping information used for the project on to its own maps, thereby allowing for a fully interactive exploration of the constraints and impacts. Withholding this extremely important information hinders any attempts by the Council to engage properly with this aspect of the consultation.

3.8.9. With regard to the DCO application itself, the Council strongly recommends that data files be made available to assist consultees. In terms of technical data the release, in particular of traffic and air quality material, should be provided in advance of the DCO application itself. It should be noted that HS2 Ltd provided all the datafiles for the HS2 project and HAL should follow this example.

3.8.10. Furthermore, if HAL ever reaches the DCO application stage, there needs to be a much more coherent structure in place and certainly for this Council, at least one full suite of hard copies needs to be provided. A consultation should not be discouraging engagement through poor presentation of important documentation.

3.9. Environmentally Managed Growth

3.9.1. The consultation includes the document, "Environmentally Managed Growth", which is described as setting out a proposed framework in which HAL states it will ensure it will always operate within clear defined environmental limits. It identifies four aspects for which there will be defined environmental limits:

- Surface access (traffic)

- Air quality
- Aircraft noise
- Carbon.

3.9.2. The document states the framework sets out the regime which guarantees these effects will remain within acceptable limits, in accordance with the principal environmental policies, in the ANPS in the long term. There are proposed monitoring mechanisms plus the establishment of an Independent Scrutiny Panel. At these early stages, the Council wishes the following comments to be considered.

3.9.3. The establishment of any such Framework, the topics for inclusion, the appropriate monitoring mechanisms and decision making processes in regard to how breaches will be dealt with requires to be taken forward by an independent body. It is not for HAL to set the framework; this must be entirely independent from HAL in order to ensure its integrity. Whilst the suggested Framework in this consultation may be seen as an input into this process for consideration, it will be for any Independent Panel to be given the relevant powers and to assess the appropriate topics for inclusion, the appropriate monitoring and the regulatory response to any breaches.

3.9.4. This requirement for the need for transparency and independence from HAL is not new. It was identified by the Airports Commission as far back as 2015, as required due to the distinct lack of trust by the communities in relation to how Heathrow Airport is operated. The suggestion to alleviate this situation and attempt to rebuild a level of trust, resulted in the need for a truly independent body to work with the aviation industry and the communities in relation to noise;

> *"The noise authority must be truly independent, with a lead commissioner or panel drawn from outside the aviation industry, and not dependent on the airports or the aviation sector for funding for its administrative and operating costs. It may be appropriate for these costs to be met from the noise levy. The authority should operate in a transparent manner, publishing the details of its operations, and be accountable to the public through Parliament. Para 103, Final Report, Airports Commission.*
>
> *The Commission therefore reaffirms its recommendation that an independent aviation noise authority should be established. The noise authority should be given statutory consultee status and a formal role in monitoring and quality assuring all processes and functions which have an*

impact on aircraft noise, and in advising central and local Government and the CAA on such issues".

3.9.5. This requirement has been recognised in the ANPS with the establishment of ICCAN; the ANPS reiterates that its function is to provide independent guidance in relation to noise issues.

3.9.6. Yet there is no mention of any interaction with ICCAN in the HAL consultation. In terms of noise, HAL has established its own view of an independent noise group, the Noise Expert Review Group. This is not supported. The Government has put in place the requirements for ICCAN; it must be in the position, and given the time, to be allowed to properly inform and influence the DCO process.

3.9.7. This attempt by HAL to control and influence what it sees as potential future constraints to its operation cannot be supported. Whilst ICAAN is set up for noise, the principle of independence should be applied to any formation of an Independent Scrutiny Panel. It is not for HAL to dictate.

3.9.8. The Council therefore insists that there be an independent body put into place. This must be appointed in a proper and transparent way; this proposal, as currently presented, is not supported.

4. Early Growth - 25,000 extra flights

4.1. Overview

4.1.1. The PEIR includes the proposal for "Early Growth, increasing flights on our existing runways". Starting in 2022, the proposal would increase the number of flights by 25,000 from the current capped 480,000 a year to 505,000 a year by 2025. This proposal will require the ATM cap set by the T5 decision to be lifted.

4.1.2. HAL sees the ATM cap as a major constraint on Heathrow's operation and on the wider economic benefits that Heathrow can provide, as well as constraining consumer choice. The Council and many others see the ATM cap as essential to managing the environmental performance of the airport.

4.1.3. The proposal claims support for early growth on existing runways is provided in the ANPS in terms of the needs case for developing capacity more quickly. In addition, the period from the granting of the DCO in 2021 to the opening of the runway in 2026 is described as involving the heaviest capital investment in the expansion programme. In the absence of early ATM growth, it is stated consumers would be likely to bear the cost of higher aeronautical charges passed on by airlines. Early ATM growth is therefore identified as an early component in delivering the obligation to ensure that the expansion is cost efficient and sustainable, minimising costs to airlines, passengers and freight owners, as required by the ANPS at para 4.39.

4.1.4. It is claimed that the environmental issues are regarded as not significant and it is stated in any case will be mitigated; the intention is for the Early Growth proposal to be included in the DCO application.

4.2. No policy support

4.2.1. The Council is clear that there is no policy support for early growth on the existing runways. The proposal has misconstrued the policies in the ANPS and ignores the intent of the policy paper "Making Best Use of Existing Runways" which was published on the same day as the ANPS. The ANPS also states:

> *"The Airports Commission's remit also required it to look at how to make best use of existing airport infrastructure, before new capacity becomes operational. The Commission noted in its final report that a new runway will not open for at least 10 years. It therefore considered it imperative that*

the UK continues to grow its domestic and international connectivity in this period, which it considered would require the more intensive use of existing airports other than Heathrow and Gatwick". (Our emphasis)

4.2.2. The ANPS sets out Government policy on expanding capacity in the south east and "*in particular by developing a Northwest Runway at Heathrow*" (para 1.38 ANPS). In terms of the delivery of additional airport capacity this is set into effect in the ANPS through "*the provision of a Northwest Runway at Heathrow Airport*" (para 1.40, ANPS). It is therefore clear that in terms of additional capacity at Heathrow, this is to be delivered via the Heathrow Northwest Runway and not through increasing use of existing runways as an interim measure.

4.2.3. The ANPS refers to the need identified by the Airports Commission for the UK to continue to grow its domestic and international connectivity in the years leading up to the opening of the new runway which it considered would require the more intensive use of existing airports. The ANPS states that this aspect will be considered in the context of developing a new Aviation Strategy (para 1.42 ANPS).

4.2.4. Alongside the publication of the ANPS in June 2018, the Government published the "Making Best Use of Existing Runways" policy paper. In explaining the background to the policy paper the document is clear that following consultation on the Aviation Strategy, there is a case for airports making best of their existing runways across the whole of the UK. It goes on to state:

"the position is different for Heathrow Airport where the government's policy on increasing capacity is set out in the proposed Airports NPS (para 1.25, making best use policy paper)".

4.2.5. The Early Growth proposal seeks its policy support from the ANPS para 3.74:

"the needs case has shown the importance of developing capacity more quickly (Exec Summary, Early Growth)".

4.2.6. It fails to add the remainder of the paragraph from the ANPS which states:

"the Heathrow Northwest Runway scheme is best placed to deliver this capacity".

4.2.7. There is no policy support in the ANPS for additional growth at Heathrow via making best use of existing runways; the policy support for additional capacity is via the Heathrow Northwest Runway.

4.2.8. The Early Growth proposal refers to the requirement to lift the current 480,000 T5 cap:

> *"so that we can make better use of our existing runways (para 1.14, Early Growth)".*

4.2.9. In terms of policy support in the "Making Best Use of Existing Runways" document, it is very clear that the support is for all other airports in this regard and it specifically excludes Heathrow where the increasing capacity is supported via the delivery of a Northwest runway as supported in the ANPS.

4.2.10. It is also noted that the *Making Best Use of Existing Runways* policy document (June 2018) states that proposals to increase planning caps resulting in fewer than 10mppa can be taken forward under the Town and Country Planning Act 1990. It is left to local, rather than national government, to consider each case on its merits.

4.2.11. Shoe horning proposals for early growth into the DCO for expansion further complicates what is an already an exceptionally difficult task.

4.2.12. This proposal has no policy support, it cannot be included as part of the DCO Project which is about increasing capacity provided by the Northwest Runway. This proposal is not DCO related; it is an abuse of process and for the avoidance of doubt it is stressed that the Council request that this proposal is withdrawn immediately. The Council will make representations to the CAA and DfT in this respect.

4.3. Failure to meet ANPS obligations

4.3.1. Heathrow states that its requirement for early growth is to support the heavy capital investment needed from 2021-2026 and is the only way to allow Heathrow to demonstrate and mitigate the associated increase in aeronautical charges and help deliver their obligation in the ANPS to ensure the scheme is cost efficient and sustainable, minimising costs to airlines, passengers and freight owners (para 4.39, ANPS).

4.3.2. The ANPS already provides for expansion at Heathrow Airport; it is therefore inappropriate to misrepresent that the ANPS can deliver early growth to fund the wider expansion proposals. If the requirement to keep costs down cannot be met, then the Secretary of State will be required to judge this in regard to whether the development is in accordance with the ANPS.

4.4. Detrimental Environmental impacts

4.4.1. The Council believe this proposal has no policy support and should be withdrawn. For the sake of completeness, it is necessary to provide a commentary on the environmental impacts of the current operation of the airport and how these relate to early growth.

Noise

4.4.2. Early growth will require the 480,000 current cap, as set by condition for T5, and endorsed by the then SoS, to be lifted. The cap was imposed as a limit on the two runway airport in order to attempt to control the unacceptable environmental impacts, such as noise, associated with its operation. In 2001, it was clear that it wasn't just the noise from an individual aircraft that was unacceptable. It was also the increasing number and frequency of events; this is a recognised issue now embedded in recent Government policy. This aspect is totally disregarded in the Early Growth proposal which focuses solely on it as a constraint on their operation and potential economic benefits.

4.4.3. Notwithstanding the concerns the Council has about the uncertainties in regard to the noise assessment approach presented in the consultation documentation, it is stated that the early ATM growth would result in around 40,300 more people exposed to noise above daytime levels that become harmful to human health, and around 3,300 newly exposed to above daytime levels which have serious health consequences. A further 2,300 will be exposed to noise levels in the sensitive night time period.

4.4.4. The conclusion is made that the resulting significant adverse effect on health and quality of life will be avoided through mitigation and compensation (noise insulation). The ANPS states significant adverse effects should be avoided, not mitigated and minimised. There is no evidence presented as to how the provision of noise insulation will avoid the significant adverse impacts, no evidence as to how any provisions to ensure such avoidance can be adequately implemented prior to and during the four year period of the Early Growth scenario, and there is no independent assessment that in regards to health and quality of life, that noise insulation does in fact avoid significant adverse effects.

4.4.5. It is also import to note that there are many significant areas impacted by the proposals that would not be eligible for insulation; open spaces, people's gardens, outdoor educational space for example.

4.4.6. Simply insulating houses will not address all the impacts.

Air Quality

4.4.7. As stated in the Council's Air Quality response in Section 7, there are many uncertainties in regard to the air quality assessments produced and these same criticisms apply equally to the analysis of early growth. Little weight can be given to the accuracy of the results. This is demonstrated again by the statement in the assessment that it relies upon emissions from other sources to reduce in line with government forecasts to allow for the headroom for early ATM growth from 2022. There are uncertainties involved in assumptions made about future forecasts of emissions yet no level of uncertainty is taken into account in the presentation of the impacts on air quality.

4.4.8. Notwithstanding this, the air quality assessment states the maximum increase in nitrogen dioxide (NO_2) annual mean concentrations is expected to be around 0.5ug/m3, with the most affected receptors those nearest to, and downwind of, the airport boundary. It is stated that, in isolation, this level of change will most likely not be significant. There is no further information to substantiate this. For example, the PEIR Air Quality chapter has assessed areas in close proximity such as West Drayton as in exceedence in 2022. To increase this further would not only be significant but it would also be unlawful. There is no assessment given of impacts in regards to particulate matter. Given the serious health implications of this pollutant, this is a serious omission.

4.4.9. The timing of the early growth also coincides with construction phase 1. As yet, the impacts of construction have not yet been properly incorporated into the traffic modelling process which in turn informs the air quality modelling assessment. It is also the timescale in which the GLA zone is still predicted to be non-compliant.

Surface access

4.4.10. The proposal states that the increased passenger numbers associated with early growth in 2022 can all be accommodated by the available capacity on the transport network around Heathrow. This gives little regard for any other transport users' requirements. The likely increase in traffic and congestion on the road networks resulting from passenger and freight journeys casts further doubt on the impacts on air quality and the locations effected. It also ignores the assumed increases in colleague numbers, as set out above in para 3.5.9.

Cumulative Impacts

4.4.11. Furthermore, there is a complete lack of acceptance that these extra flights and

extra harm will coincide with one of the largest construction sites in Europe. As well as the increase in noise, many of the same people will be impacted by already poor air quality levels, new constructions impacts, large quantities of HGVs, general impacts on amenity all bringing significant stress and disruption to them.

Conclusion

4.4.12. This proposal has no policy support and therefore, it cannot be included as part of the DCO Project which is about increasing capacity provided by the Northwest Runway. This proposal is not DCO related; it is an abuse of process and for the avoidance of doubt it is the Council's position that it should be withdrawn immediately. The Council will make representations to the CAA and DfT in this respect.

4.4.13. In respect of the environmental impacts, this Early Growth proposal seeks to overturn one of the key environmental protections the surrounding communities have i.e. an ATM cap. The proposal brings more noise to many thousands of people including some who will be newly exposed. It increases pollution at the same time the GLA zone is still predicted to be non-compliant and coincides with the construction phase and the devastating impacts this will have.

4.4.14. To attempt to introduce this proposal so as to ensure that the airport has sufficient money to cover the construction of its runway, which in itself will destroy homes and add further noise and pollution across the majority of London and the surrounding counties, shows complete contempt for the surrounding communities.

4.4.15. If HAL persists with this proposal, then there must be a decoupling from the wider DCO expansion proposals. There must be standalone assessments undertaken, relating to the relevant environmental topics and a clear health impact assessment that looks at the cumulative impacts with poor air quality and construction and other such matters.

4.4.16. This consultation appears to 'sneak in' the concept of early growth without a full, honest and robust appraisal of the impacts.

5. Accommodating Heathrow Expansion in Hillingdon

5.1. Introduction

5.1.1. The existing extent of Heathrow Airport is predominantly located within the London Borough of Hillingdon. As the largest and busiest airport in the United Kingdom, it already has a major impact on the borough in terms of land use planning. This will increase significantly as a result of the type, scale and location of development proposed within the Preferred Masterplan for the Heathrow Northwest Runway, the majority of which will be located within Hillingdon. Consequently, as identified in Chapter 11 of the Preferred Environmental Impact Report (PEIR), Hillingdon will be the local authority area most 'substantially and directly affected' by the proposed Northwest Runway development.

5.1.2. Having reviewed the Preferred Masterplan and supporting information, including the PEIR and the Scheme Development Report, the Council has identified some key areas of concern regarding potential adverse impacts on current and future land use planning within the borough which it believes have been insufficiently explained, justified or weighted within the consultation material. These concerns cover both those areas of the borough included within the proposed DCO boundary, as well as those in close proximity to the expanded airport, but which are currently outside of the DCO area. It is key for the Council that the impacts on current and potential future land use in and around the airport are considered in full, and that the proposals in the Preferred Masterplan are not determined in isolation from the local planning policy context within which they are located.

5.1.3. It should be noted that reference is made throughout the consultation material to the role of the Heathrow Strategic Planning Group ("HSPG") which is a non-statutory body made up of a number of local authorities surrounding the airport. The Council has chosen not to participate in the planning work of the HSPG, given its non-statutory nature. The Council does not believe that the work of the HSPG has any role in identifying the likely impacts on the future development in Hillingdon and does not consider that this non-statutory work should be used to demonstrate engagement with local authorities and communities on future land use matters. HAL must provide all relevant evidence, prepared with the HSPG, to the Council to ensure that the borough is not at a disadvantage in considering the land use impacts of the DCO project and it should ensure that the Council is consulted on all future stages of the Masterplan and Environmental Statement

preparation.

5.2. Policy Context

National

5.2.1. The Preferred Masterplan for the Heathrow Northwest runway has been developed within the context of the ANPS which applies to schemes at Heathrow Airport that include a runway of at least 3,500m in length and are capable of delivering 260,000 additional air transport movements per annum. It also applies to any reconfiguration and provision of new terminal capacity between the two existing runways. In assessing the potential impacts of any such proposed development, the Examining Authority and Secretary of State are required to weigh potential environmental, safety, social and economic benefits against any potential adverse impacts at the national, regional and local levels.

5.2.2. The ANPS is also clear that the exact form of the proposed development for the Heathrow Northwest runway is a matter for the DCO applicant provided that it falls within the ANPS parameters. In this sense, the ANPS can be seen only to specifically determine the location, limits and nature of such schemes, and it will remain a matter for the Examining Authority and Secretary of State to determine if all other aspects of an application are compliant with the ANPS.

5.2.3. Beyond the general principles of assessment outlined above, the ANPS provides more detailed guidance for the assessment of specific impacts, although this is not considered to be exhaustive and the Council's response goes on to address all land use planning issues for the borough. The issues focused upon in the ANPS are the impacts on land use including open space, green infrastructure and Green Belt. The ANPS states that the applicant's assessment should identify existing and proposed land uses near the project, including any effects of replacing an existing development, or the use on a neighbouring site continuing.

5.2.4. The DCO applicant should also assess any effects of precluding a new development or use proposed in the development plan. In terms of existing open space, sports and recreational buildings and land, these should not be developed unless the land is no longer needed or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location. Consideration to the harmful indirect impacts on existing land uses is all necessary.

5.2.5. Regard should also be had to any local authority's assessment of need for such

types of land and buildings. The ANPS also identifies that the general presumption against development in the Green Belt will apply and that inappropriate development in the Green Belt and Metropolitan Open Land will need to demonstrate very special circumstances. The DCO applicant must also seek to avoid areas of the best and most versatile (BMV) agricultural land and safeguard any mineral resources on the proposed site for the preferred scheme as far as possible. The Council's responses consider all these issues alongside impacts on future housing and employment provision which are not specifically addressed within the ANPS.

NPPF

5.2.6. Paragraph 5 of the NPPF states that whilst the Framework does not contain any specific policies for nationally significant infrastructure projects, National Policy Statements do form part of the overall framework of national planning policy and may be a material consideration in preparing plans and making decisions on planning applications.

Regional

5.2.7. The London Plan is the statutory Spatial Development Strategy for Greater London and forms part of the borough's Development Plan. The current London Plan (2016) (Policy 6.6 Aviation) sets out the Mayor's opposition to any further expansion at Heathrow involving an increase in the number of aircraft movements due to the adverse noise and air quality impacts already being experienced by those living in the vicinity of Heathrow. The new Draft London Plan - Consolidated Suggest Changes Version July 2019, through Policy T8 Aviation, states that the Mayor will oppose the expansion of Heathrow Airport unless it can be shown that no additional noise or air quality harm would result, and that the benefits of future regulatory and technology improvements would be fairly shared with affected communities.

5.2.8. It is also recognised in Section 2 of the London Plan that the spatial and environmental implications of potential airport expansion are likely to have an impact on the potential for new housing and jobs within the Opportunity Area identified around the existing airport. However, further clarity on the extent and nature of the proposals for growth at Heathrow is required before the impacts can be fully assessed. It is therefore important to highlight that the current growth and need assumptions that underpin the emerging London Plan have not been able to take account of the social, economic and environmental impacts of the proposals set out in the Preferred Masterplan and supporting documents.

Local

5.2.9. The Council's development plan for the borough currently consists of the Local Plan Part 1 - Strategic Policies adopted in November 2012 and the Local Plan Part 2 - Saved UDP Policies (2007). The Council has also produced a replacement Local Plan Part 2 which is at the latter stages of preparation having completed the examination hearings in August 2018. The Council is awaiting the Inspector's report which is due in late summer 2019. However, a Post Hearing Advice Note was received from the Inspector in December 2018. This advice note outlined that subject to Main Modifications, the replacement Local Plan Part 2 was a document capable of being found sound.

5.2.10. It also set out a further Main Modifications to the Plan which the Inspector outlined as necessary to make the Plan consistent with the ANPS. Specifically, this required the removal of policy wording which did not support the growth of airport operations and the deletion of a number of office and hotel growth locations on the perimeter of the existing airport due to the likely impact of the proposals in the ANPS on their deliverability.

5.2.11. The Main Modifications to the emerging Local Plan Part 2 were consulted on in March to May 2019 and the Inspector will be reviewing the responses as part of his final report. It is currently anticipated that the replacement Local Plan Part 2 will be adopted by the Council in November 2019. However, given the advanced stage of plan preparation, the policies in the Emerging Local Plan Part 2 with Main Modifications (LPP2) are being afforded weight in planning decisions subject to a level of on-going objection and extent of any main modifications.

5.2.12. Local Plan Part 1 Policy T4 sets out the Council's strategic approach to support the sustainable operation of the airport within its present boundaries. The objectives underpinning this approach are to seek to maximise the economic benefits of Heathrow, reduce any negative environmental impacts of the airport and secure improvements for local communities. The implementation of this approach through the emerging LPP2 has, however, been modified to ensure consistency with the ANPS and in principle to support new runway capacity at Heathrow. However, Policy DMAV 2: Heathrow Airport (as modified) does still outline that development proposals within the airport boundary will only be supported where:

1. they relate directly to airport related use or development;
2. there is no detrimental impact to the safe and efficient operation of local and strategic transport networks;
3. they comply with Policy DMEI 14: Air Quality;

4. there are no other significant adverse environmental impacts; where relevant, an environmental impact and/ or transport assessment will be required with appropriate identification of mitigation measures;
5. they comply with all other relevant policies in the Local Plan.

5.2.13. Given their significance, the issues of transport and air quality are dealt with separately in other sections of this response. The remainder of this section focuses on the key issues arising on specific land use policies, together with the wider implications for the delivery of key objectives set out in the borough's development plan (London Plan and Local Plan).

5.3. Green Belt

5.3.1. The Preferred Masterplan identifies that the area required for expansion includes large parts of Hillingdon's Green Belt. In view of this, the Masterplan states that HAL is undertaking a study to look at the form and function of the Green Belt around Heathrow and to consider the extent to which the land which may be affected by the project fulfils the purposes of Green Belt. It is stated in paragraph 3.3.7 that this study has fed into the development of the Preferred Masterplan.

5.3.2. The Council requested a copy of this study which was not been published as part of the background documents. It is extremely disappointing that this important information had not been included. The Council received the assessment towards the end of the consultation period raising further questions about why it was not included originally. This document will have to be considered separately but the comments below are based on consideration of that assessment. A further response will be provided in due course.

5.3.3. The Council undertook its own Green Belt Assessment Update (2013) as part of the evidence base for the emerging LPP2. This study recommended the removal of only three sites from the Green Belt on the basis that they did not meet at least one of the purposes outlined in the National Planning Policy Framework. One of the sites recommended for removal was the Perry Oaks Sludge Works on which Terminal 5 is now located. It is intended that a new Policies Map, reflecting the outcome of the Council's own Green Belt assessment, will be adopted alongside the replacement LPP2 later this year. The Council considers that at this point, the up-to-date extent of the borough's Green Belt will be confirmed as required by national planning policy.

5.3.4. Whilst supporting the principle of an additional runway at Heathrow, the ANPS is

clear that Green Belt policy, as set out in the NPPF, is applicable to such proposals and that very special circumstances should be provided to justify inappropriate development in the Green Belt. It is clear that both the proposed runway and airport supporting development proposed in Hillingdon's Green Belt is inappropriate development as it does not fall within the categories of development identified in paragraphs 145 and 146 of the NPPF. Although no maps or diagrams have been provided which demonstrate the area of Green Belt located within the DCO project boundary, it is possible to determine broadly that parts of the Preferred Masterplan located within the Green Belt include:

1. The runway which covers large sections of Harmondsworth Moor;
2. The realigned A4 which runs through Harmondsworth Moor and areas of farmland to the north of Sipson and Harmondsworth Villages;
3. The Northern Parkway and proposed hotel developments on the site of the existing Wells Farm Garden quarry and Little Harlington playing fields;
4. Covered thermal storage pond and wastewater treatment plant at Saxon Lake East to the north of Harmondsworth Village;
5. The realigned M25 and works for Junction 14 and 14a through Stanwell Moor and the Bedfont Court Estate;
6. Re-provision of Harmondsworth School and a temporary Heathrow Consolidated Centre on an existing golf course to the west of Stockley Road;
7. General references to the ambiguously titled 'airport supporting development'.

5.3.5. Based on this high level understanding of the DCO development proposed on the Green Belt, the Council has concerns that the loss of Green Belt to the south of the M4 is so significant as to destroy the character and function of the majority of Green Belt in this area, removing both the current separations between the London Borough of Hillingdon and adjoining authorities, and West Drayton and the Airport; on a regional scale, the proposal would erode the boundary between London and the counties beyond. Unusually for potential impacts of this scale, these impacts will be determined outside of the development plan making process, thereby limiting the consideration of factors such as the contribution to sustainable patterns of development and offset compensatory provision.

5.3.6. The Council is also concerned that given the extent of the proposed development within the borough's Green Belt, there would be a fundamental change in the character and function of Green Belt in this area. The Council

would then be required to undertake a Green Belt Review as part of the process of reviewing its Local Plan and it would inevitably have to question whether such land was meeting any of the five purposes set out in the NPPF. It could also make remaining undeveloped Green Belt in the area more vulnerable in a review, by limiting the Green Belt purposes such land would be able to serve. It is therefore clear that the scale of proposed development on the Green Belt will fundamentally change the character of the borough, and damage its integrity as an outer London borough separated from adjoining authorities by a functional Green Belt.

5.3.7. In terms of the need to demonstrate very special circumstances for development on the Green Belt, the Council is of the view that there is no clearly articulated case of very special circumstances set out in the Masterplan or supporting documents for any elements of the scheme. This is despite planning concerns about Green Belt impacts being flagged throughout the evaluations presented in the Scheme Development Report for elements such as the Northern Parkway. To comment more fully on the proposals, the Council would expect to see detailed evidence which maps and quantifies the amount of Green Belt on which development is proposed and sets out the very special circumstances for all relevant elements of the Masterplan.

5.3.8. Based on the issues set out above, the Council has significant concerns about the potential impact of the Preferred Masterplan on the extent and function of Green Belt in the south of Hillingdon. The Council does not feel that sufficient information has been provided through the Masterplan or supporting information on the amount of Green Belt land that will be impacted by the proposed DCO, the case for very special circumstances or proposals for compensatory provision; further details on all these elements is required before a full assessment of local impacts can be made.

5.3.9. Finally, it is not lost on the Council that the area of Green Belt to the west of Terminal 5 will effectively be lost in its entirety. This matter was discussed at length during the Terminal 5 inquiry with conclusions being reached that Terminal 5 would be acceptable on the Green Belt due to the retention of the buffer with the M25. This buffer is now proposed to be removed in its entirety.

5.4. Open space, Sports and Recreational Buildings and Land

5.4.1. Paragraph 5.112 of the ANPS outlines how the DCO applicant should treat existing open space, sports and recreational buildings and land in relation to a DCO application. It states the following:

5.4.2. "Existing open space, as well as buildings and land that support sports and recreational uses should not be developed on unless the land is no longer needed or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location. Furthermore, if these uses become untenable as a consequence of direct or indirect impacts, then either the impacts should be avoided in the first instance, or the uses properly re-provided for".

5.4.3. In both scenarios, all replacement is required to be in a suitable location and not just on any randomly available site. This requires careful consideration of the catchment areas, current levels of deficiencies and the ability to secure land for the re-provision.

5.4.4. If the DCO applicant is considering proposals which would involve developing such land, it should have regard to any local authority's assessment of need for such types of land and buildings.

Open Space Assessment (OSA) - Baseline (Methodology)

5.4.5. It is imperative that all parties have a full understanding of all the existing open space, sports and recreational buildings and land impacted by the DCO application, in order for a comprehensive assessment to take place. Whilst a large proportion of greenfield land impacted by the DCO has been identified through the OSA Baseline Report, there remains greenfield land that has been left un-assessed. It is noted that the desk-based baseline study identified 175 public open spaces within the study area, which were supplemented by additional sites from the HSPG. Dealing with the HSPG as a proxy for this Council is inappropriate; the first stage is for HAL to undertake the proper assessment work and then present this to the Council. No information has been presented ahead of this submission and even now there is a paucity of evidence.

5.4.6. The OSA Baseline Report has rationally set catchment areas for each type of open space designation. These catchment areas need to be considered as a starting point only, noting that the attractiveness of open spaces to residents may extend beyond these catchment areas, particularly in areas where there are existing deficiencies in public open space. It would not be acceptable for an area that is currently deficient in open space to be ignored in terms of re-provision on the basis that it is not within a standardised catchment area, noting that these residents will already be travelling further to reach public open space.

5.4.7. In order to facilitate an effective assessment, all maps provided as part of the

consultation should also be available via shapefiles. This will allow information to be overlayed onto current mapping systems within the Council. The approach adopted for this consultation makes the information inaccessible and difficult to properly assess.

Open Space Assessment - Baseline (Results)

5.4.8. The Open Space Assessment Baseline illustrates that significant deficiencies in public open space already exist within the study area, particularly in terms of District Parks (43%) and Small and Local Open Spaces (70%). Importantly, these existing deficiencies affect not only those who would be displaced by proposed expansion, but also the communities that would remain. It is clear from the OSA Baseline that the full quantum of open space that would be lost in Hillingdon would still be required after expansion and would therefore need to be replaced by equivalent or better provision in terms of quantity in line with the ANPS.

5.4.9. In terms of the quality and accessibility, it is not deemed that sufficient information has been provided at this stage to demonstrate how expansion would impact on these two factors in regards to public open space specifically. This information should be provided for all retained and proposed public open space, so as to ensure quality is maintained or enhanced where possible. Whilst the intention of designing it to Green Flag accreditation is welcomed, more information is required as to how this would be achieved. Furthermore a much fuller understanding should be presented in relation to the impact on quality and accessibility from the expanded runway, which should include short and long term impacts from new road configurations, traffic, noise, vibration and poorer air quality.

5.5. Embedded Environmental Measures and Mitigation

5.5.1. The Preferred Masterplan has begun to broadly outline where public open space would be retained and where it may be re-provided moving forward. There is, however, a large number of concerns relating to this proposed mitigation, which includes but is not limited to:

- The lack of information which demonstrates what the quantity, quality and accessibility of these new public open spaces would amount to;
- That the re-provided public open spaces would not be of a sufficient size to retain their current designations;
- That the re-provided open space is in a suitable location;

- That the quality of the retained and re-provided open space would not mirror what is currently there, particularly in a post expansion scenario where these areas are likely to experience increases in negative externalities from the airport;
- That the accessibility between these open spaces and to residents would not be sufficient, noting both the disruption caused by potential expansion and the scepticism surrounding the usability of the "Green Loop" as currently evidenced;
- Existing Public Open Space within Hillingdon is proposed to be provided outside of the Borough. In some instances, recreational open space is earmarked to be re-provided within the Borough without any demonstration as to where this would take place;
- The compatibility of the proposed recreational uses being relocated with alternative uses, including co-locating large flood storage facilities and play pitches. There is an additional concern that recreational buildings and land are proposed to be re-provided in inappropriate areas that are environmentally constrained and unsuitable for the proposed use;
- The airport supplementary development is impossible to understand and therefore further impacts on open space is unknown;
- Whether all the impacts are properly understood given the consultation only considers a fraction of what airport expansion is.

5.6. Employment Land

5.6.1. The ANPS identifies that the Heathrow Northwest Runway scheme should deliver a substantial number of new jobs, outlining the following:

5.6.2. "The Heathrow Northwest Runway scheme is expected to generate up to 114,000 additional jobs in the local area by 2030 with Heathrow Airport also pledging to provide 5,000 additional apprenticeships by this time. The number of local jobs created at an expanded Heathrow Airport is predicted to be much greater than at Gatwick Airport (up to 21,000 by 2030 and 60,000 by 2050)".

5.6.3. However, an initial review of the Preliminary Environmental Information Report ("PEIR") reveals that there is a significant shortfall being proposed in the net additional jobs in the local area compared to what was presented in ANPS. This indicates that the economic benefits of the proposal will not be as significant as those outlined in the ANPS; this was a significant factor weighing in favour of the Northwest Runway proposal against the alternatives considered. This is a

significant concern and provides huge uncertainty for future planning.

5.6.4. Nevertheless, the proposal is likely to have significant impacts in the floor-space required for employment uses within the local area. This is based on both the displacement and sterilisation of existing employment land within the vicinity of the scheme, as well as the requirement to find additional land for increases in both Airport Supporting Development (ASD) and non-ASD employment uses.

5.6.5. An assessment of the demand for new employment floor-space has recently been undertaken as part of the evidence base for the draft London Plan (2017). The demand for industrial land is assessed within the London Industrial Land Demand Final Report (2017) by CAG Consultants. The study highlights that 5 of the 7 London Boroughs making up the Park Royal/Heathrow Industrial Property Market will be required to retain their industrial capacity up to 2041. The remaining two London Boroughs will be required to provide a net increase in industrial land capacity up to 2041. This study does not assess a scenario in which there is a new third runway at Heathrow Airport leading to expanded airport capacity. However, it is likely that this will only increase the need for industrial land in this part of London.

5.6.6. In terms of the demand for office floorspace, this is addressed within the London Office Policy Review (2017) by Ramidus Consulting. The study highlights demand for between 4.7 and 6.1 million m2 for gross internal floorspace in London up to 2041. Again, this study does not assess a scenario in which there is a new third runway at Heathrow Airport leading to expanded airport capacity.

5.6.7. In terms of the demand for hotel floorspace, this is addressed within Working Paper 88: Projections of demand and supply for visitor accommodation in London to 2050 (2017) by GLA Economics. The study highlights demand for 58,000 bedrooms of serviced accommodation across London by 2041. Importantly, this study works on the basis of a new Northwest Runway being provided that would increase the airport capacity from 480,000 to 740,000 ATMs per annum.

5.7. Displacement of Existing Commercial Activity

5.7.1. Chapter 18 of the Preferred Environmental Impact Report ("PEIR") outlines the displacement and re-provision of floorspace that would take place as part of the DCO, as currently drafted. It outlines that 95,000 sqm of office and 136,000 sqm of warehousing would be displaced i.e. lost as part of the DCO; worryingly, it only includes the re-provision of 22% and 46% respectively. This results in a net

loss of valuable employment uses further undermining the claims in the ANPS that Heathrow expansion will be a huge local benefit.

5.7.2. In light of the need highlighted above to protect and enhance industrial capacity and accommodate new demand for office floor-space in the borough even before expansion, then the DCO should a) ensure full re-provision of the lost activity and b) provide absolute clarity where the new provision to serve future needs will be.

5.7.3. Anything short of this will be a further demonstration of the DCO only considering part of what expansion at Heathrow actually involves.

5.7.4. Similarly, but with some very important differences, HAL has considered the more lucrative hotel uses within the consultation document. It states:

> *"The DCO Project would include re-provision of displaced hotels and responds to the demand for additional hotel rooms to support the increase in passenger and crew numbers. This equates to the provision of approximately 375,000m$_2$ of floor-space".*

5.7.5. HAL is prepared to re-provide 100% of the hotel losses and provide for future uses, but as above, it is not clear whether this is sufficient to address all demand related to expansion.

5.7.6. In any event, it is not considered that the figures presented within Chapter 18 of the PEIR fully reflect the level of displaced floor-space as a result of proposed Heathrow Expansion. The negative externalities resulting from the proposed Heathrow Expansion, both in the short and long term, will likely result in land outside of the current DCO boundary being made undesirable for its existing use. This includes disruption related to new road configurations, traffic, noise, vibration and poorer air quality. Therefore, in order to capture the full displacement of floor-space resulting from proposed expansion, the initial analysis undertaken must be expanded further to ensure the viability of existing floor-space is fully considered.

5.7.7. In relation to the re-provision of hotel rooms, in light of the need highlighted above, the re-provison of 100% of the displaced floor-space is welcomed. However it is not clear how paragraph 86 of the NPPF (2019) has been taken into account in the decision to include all of the re-provided and additional hotel rooms (375,000m2) outside of main town centres and edge of centre locations. In order to maintain consistency with regional and local planning policy, forecasts and provision related to hotels should be provided in terms of number

of bedrooms to allow for the necessary comparisons.

5.7.8. It is also not clear how the phasing of the plans works; i.e. the loss of hotels, the subsequent re-provision, the increase in demand due to early growth and assertion that construction workers will utilise 'tourist accommodation' (presumably hotels). Realistically, the increase in demand or hotel space from early growth will coincide with the demolition of hotels and added burden placed by construction workers. This places great strain on the surrounding areas which will spill out into wider areas.

5.8. Airport Supporting Development (ASD)

5.8.1. Prior to considering ASD in more detail, it is first necessary to point out the fundamental problems with inventing a new use class. Table 6.8 of Chapter 6 of the PEIR identifies that ASD encompasses a range of Town and Country Planning land use classes. This makes it difficult to fully understand the implications of what is being proposed. In turn, this has ramifications for other environmental topics, for example in terms of traffic generating uses.

5.8.2. The proposed Airport Supporting Development (ASD) is outlined within Table 6.8 of Chapter 6 of the PEIR. Whilst it is clear that a significant quantum of ASD floor-space is proposed to be included within the Preferred Masterplan, it is not clear how these figures have been calculated.

5.8.3. Ensuring that all the ASD floor-space is captured within the DCO application is critical to ensuring that the full impact of airport expansion is captured within the DCO process. Failure to do so will result in new planning applications being submitted outside of the DCO process.

5.8.4. In light of the demand for new employment, floor-space that already exists in the local area without an expanded Heathrow Airport, and the existing constraints on the amount of available land, means that in principle all ASD floor-space should be focused on or adjacent to the airport. The exception to this should be main town centre uses, as defined by the NPPF (2019), which should primarily be located in town centres and edge of centre locations. Justification should be provided for departing from national policy.

5.9. Non-Airport Supporting Development

5.9.1. The proposal outlines that there will be catalytic effects as a result of an expanded airport in relation to increase in the number of jobs, particularly

within Phase 3. Whilst the significance of this has been categorised as minor at the national level, undoubtedly this will be stronger the closer one is to the airport. As such, there is likely to be a significant requirement for new floor-space near to the airport from development that is not captured within the ASD definition. The proposal at present fails to quantify the required land-take for this development or suggest where it could be accommodated. This is particularly pertinent considering the land constraints impacting local planning authorities near to Heathrow Airport and the existing requirement to meet the already challenging targets outlined within the Draft London Plan (2017).

5.10. Housing Supply

5.10.1. The impact on the supply of homes, both in Hillingdon as well as other surrounding local planning authorities, is another area where the Council believes that there is not sufficient evidence available to assess the potential impacts. The ANPS states that in terms of land use, the applicant should identify any effects of replacing an existing development or use of a site from continuing. The Council's initial view is that the Masterplan and supporting evidence significantly underestimates the number of homes that will require demolition, the likely change in character of the remaining stock and the potential increase in future housing need linked to job creation at the airport. As a direct consequence of these underestimates, it is the Council's view that these impacts are not given sufficient consideration in the Preferred Masterplan or PEIR.

5.10.2. It is anticipated that the potential impact of Heathrow expansion on future housing supply in Hillingdon will be threefold;

5.10.3. Firstly, there are those homes which will be lost as a direct result of the proposed development leading to a reduction in the borough's total housing stock and difficulties in meeting the borough's housing growth targets.

5.10.4. Secondly, that the growth in employment uses and jobs associated with the construction and operation of an expanded airport will lead to increased demand for new homes which aren't reflected in the current London Strategic Housing Market Assessment.

5.10.5. Finally, that disruption associated with airport expansion works, together with new areas of the borough being affected by noise and height restrictions, will suppress the rate of new housing development within the borough, and hinder the Council's ability to meet its growth targets set out in the London Plan.

5.10.6. Turning firstly to the direct impact on the borough's housing supply, the Preferred Masterplan identifies that it will result in the loss of 754 homes of which 739 are within the London Borough of Hillingdon (444 in Harmondsworth, 285 in Longford and 10 in Sipson). This number is slightly below the 783 properties identified in the ANPS Appraisal of Sustainability. However, this number only includes those homes within the Compulsory Purchase Zone (CPZ) where the majority of the physical expansion works will take place. The Preferred Masterplan also identifies a Wider Property Officer Zone (WPOZ) which extends to properties within the areas most affected outside of the CPZ. This includes the remaining part of Harmondsworth, and the villages of Sipson and Harlington which, together with areas outside of the borough, includes approximately 5,500 residential properties.

5.10.7. Except for the identification of the WPOZ, the Masterplan is entirely silent on the future of the homes, businesses and communities within this area. It is unclear if HAL would propose to demolish any of the acquired properties, seek their redevelopment as alternative uses or replace the existing communities with new residents. Even at this stage of the project, there is still a level of uncertainty as to what the actual project description is.

5.10.8. All of these scenarios have a significant impact on the ability of the Council to plan for its future housing and other development needs. The Preferred Masterplan should therefore be expanded to set out a detailed vision for the future of all of the areas within the WPOZ on the basis that these areas will also be subject to significant change as a result of the DCO project.

5.10.9. Whilst the Council does not support in any way the proposed demolition of the Heathrow Villages as a result of the DCO project, it believes that if the airport expansion proposals go ahead, it is inevitable that the proposals in the Preferred Masterplan will blight the future viability of Harmondsworth, Sipson and Harlington. The high levels of noise, air pollution and congestion together with the displacement of households and the removal of community facilities is highly likely to create an unacceptable living environment for residents. Heathrow must therefore take more responsibility for its impact on these local communities, and the Preferred Masterplan should fully address the impact of its proposals on the future viability of the Heathrow villages.

5.10.10. In terms of future housing need, paragraph 4.9.4 of the Masterplan states that Heathrow does not believe that expansion will generate any material need for additional homes in the local area and that a joint study undertaken with the HSPG confirmed a figure of 3,000 additional homes to 2041. This is broken down

further in Chapter 11 of the PEIR to equate this additional growth to 105 homes per annum within the surrounding boroughs until 2041. This figure is significantly below the estimate of 300 to 500 additional homes per local authority per year identified in the ANPS Appraisal of Sustainability.

5.10.11. There is evidence in Chapter 11 of the PEIR that the lower figure referred to in the Preferred Masterplan has been derived using a methodology that is inconsistent with that set out in national and regional planning guidance. The assessment of housing need within the wider study area (nine local authorities surrounding Heathrow) presented in PEIR Chapter 11, paragraphs 11.10.130 to 131 concludes that:

> *"11.10.130...At present, the [government's] Single Methodology sets the annual housing need at just over 8,000 dwellings per annum in the wider study area (2016-2026), and existing local assessments of housing need based on published plans and the New London Plan set housing targets at around 8,600 dwellings per annum".*

5.10.12. This compares to Oxford Economics forecasts of an annual average growth of 5,460 dwellings per annum over the period 2019-2025 (of which the additional effect of the DCO Project would contribute 78 households), 5,529 dwellings per annum over the period 2019-2027 (of which the additional effect of the DCO Project would contribute 87 households), and 5,428 dwellings per annum over the period 2019-2035 (of which the additional effect of the DCO Project would contribute 105 households)."

5.10.13. This makes it clear that the lower housing need figures set out in the Preferred Masterplan are based on a population model that does not conform with the Government's Single Methodology and cannot therefore be relied on in the local plan making process.

5.10.14. Given that local planning authorities must use the Government's Single Methodology to calculate housing need, this should be the method for assessing the impact of the airport expansion proposals on housing need. The Council would therefore request that information is provided on the impact of the DCO project on housing need for each relevant local authority using the Single Methodology so that it can be assessed within the context of other local and regional evidence.

5.10.15. The Council's third concern in relation to housing supply is that the long-term disruption caused by the proposed expansion works is likely to have a negative impact on the rate of housing delivery in the borough. This could particularly

affect areas such as Hayes and West Drayton which are in close proximity to the expanded airport, and are likely to experience additional congestion from construction works and displaced traffic. There is also the potential that the new flight paths once confirmed, will result in new areas of the borough being severely affected by aircraft noise and safeguarding restrictions on buildings heights.

5.10.16. The potential knock on effects of these impacts could include limitations on the capacity of sites within growth areas, delays to starts on sites because of difficulties with access and congestion and reductions in property values due to the negative externalities identified above leading to a slow down of sales and overall build out rates. Any negative impacts on the rate of housing delivery could have significant consequences for the Council in terms of the Housing Delivery Test and should therefore be tested through the DCO process.

5.10.17. It must be noted that limiting the investigation to 'the wider study area' with no further analysis fails to capture the likely demands at a more local area. It cannot be sensible to equally compare the outer edges of Windsor and Maidenhead over 20miles away with Hillingdon in which Heathrow Airport is located. This requires more detailed thought and analysis to properly capture the likely significant effects of the proposals.

5.10.18. Any discussion or assessment on housing needs to be tempered given:

- the wildly different views on how many jobs will be created between the ANPS and this consultation documentation;
- The documentation presents an unclear perspective of what expansion is and where it will influence;
- The extent of environmental constraints (i.e. noise and air quality) are not adequately known; new housing should not be located within areas where residents have an increased chance of developing serious illness;
- The extent of the land and uses required to support housing, i.e. open space and schools; the Council will not be endorsing the location of housing where residents will have a substandard living.

5.11. Minerals

5.11.1. The Council is a Minerals Planning Authority and is required by the London Plan to maintain a landbank (seven years supply) of sand and gravel. The landbank apportioned to Hillingdon in the current and draft London Plan is 1.75 million

tonnes. In order to meet its apportionment, the Council has identified four areas of mineral extraction in its emerging LPP2 including one specific site, two Preferred Areas and one Area of Search:

- MSA1 Land West of Harmondsworth Quarry (Preferred Area)
- MSA2 Land north of Harmondsworth (Preferred Area)
- MSA3 Land at Sipson Lane east of the M4 Spur (Specific Site)
- MSA4 Bedfont Court Estate (Area of Search)

5.11.2. The Land Quality Chapter of the PEIR (Chapter 14) identifies the potential impacts on the borough's minerals sites as summarised below.

MSA1 Safeguarded as Preferred Area for mineral extraction in the Local Plan Part 2.

5.11.3. 45 hectare site with 2.2 million tonnes of sand and gravel resource - The land is proposed for airport operations with substantial underground structures, watercourses and flood storage uses. Areas would also be utilised as borrow pits. However, sand and gravel resources would sterilise in other areas. The outcome is likely sterilisation of the site.

MSA2 Safeguarded as Preferred Area for mineral extraction in the Local Plan Part 2.

5.11.4. 17 Hectare site with around 750,000 tonnes of sand and gravel resource - The land is proposed for watercourses and flood storage uses. These activities are likely to require some degree of prior extraction although it is unclear how this material would be used. The outcome is likely sterilisation of the site.

MSA3 Safeguarded as a Specific Site in the Local Plan Part 2.

5.11.5. Planning permission to extract a further 100,000 tonnes by September 2019 - It is anticipated that all remaining extraction will have taken place before the commencement of the DCO project.

MSA4 Safeguarded as an Area of Search in the Local Plan Part 2 as a main modification.

5.11.6. This modification has not been picked up in the PEIR which identifies it as an area without designation. This land is expected to house major built development for Airport operations. Unless prior extraction is undertaken, the proposed development would see sand and gravel sterilised.

5.11.7. Based on the information in the PEIR, all of the safeguarded minerals sites in the Council's emerging Local Plan will be sterilised by the proposed airport development.

5.11.8. This will leave the Council unable to meets it apportionment target as sand and gravel reserves primarily are located in the south of the borough. Both the London Plan and Local Plan will need to be reviewed to address this issue and it is likely that other London boroughs with minerals reserves will need to make a greater contribution to London's apportionment.

5.12. Agricultural Land

5.12.1. The ANPS identifies that where significant development of agricultural land is demonstrated to be necessary; the applicant should seek to use areas of poorer quality land in preference to that of higher quality. These requirements are in line with those set out in paragraphs 170 and 171 of the NPPF.

5.12.2. Chapter 14 (paragraphs 14.10.81-82) of the PEIR identifies that the:

> *"Construction of the DCO Project will result in a maximum permanent loss of approximately 1,068 ha of agricultural land. This is mapped as Grade 1 (659 ha), Grade 2 (106 ha), Grade 3 where there is no sub-division data available (144 ha), Grade 3a (49 ha), Grade 3b (79 ha) and Grade 4 (31 ha). The remaining land take is non-agricultural land or urban/industrial land totalling 2,166 ha".*

5.12.3. On this basis, the maximum amount of best and most versatile (BMV) agricultural land that would be lost is 958 ha (659 ha plus 106 ha, plus 144 ha and 49 ha). Using data for the Greater London Authority (GLA) area, this loss represents a maximum of 25.0% of the 3,825 ha of grades 1 and 2 BMV land within Greater London.

5.12.4. From the Figure 14.8 Provisional Agricultural Land Classification Mapping, it is clear that the majority of Grade 1 land to be lost through the DCO project is in Hillingdon between the Heathrow villages of Harmondsworth and Harlington. As the PEIR identifies, given the scale of the proposed loss, this is significant at both a local and regional level. It is also noted in the PEIR that this should be considered in the context of the further proposed loss of BMV in the Colne Valley through HS2 which is already impacting on agricultural land in other areas of the borough.

5.12.5. Large parts of the borough are characterised as an area of countryside and open

land and agriculture is still a major land use in these areas. The Council attaches great importance to their retention and upgrading, both as productive land, and as a fundamental aspect of the borough's green infrastructure. Given the significance of the proposed loss, the Council does believe sufficient evidence has been presented at this stage of the process undertaken to ensure that areas of poorer quality land were preferred where possible to those of a higher quality. The majority of this land is also designated as Green Belt which requires the demonstration of very special circumstances.

5.12.6. In terms of the economic benefits of the BMV agricultural land, Chapter 18 para 18.10.14 of the PEIR states that an assessment has not yet been undertaken on the businesses and level of economic activity supported by this land, but will be informed by land referencing for the Environmental Statement at the next stage. Given the absence of information, it is not possible to comment in full on the likely land use implications of the proposed loss of BMV agricultural land around the Heathrow Villages. However, it is evident that their loss will be a significant harmful impact on the availability of BMV in Hillingdon and will constitute a fundamental change in the landscape character of this part of the borough. These impacts will require further detailed consideration once additional evidence is available.

5.13. Conclusion

5.13.1. Over the six areas of land use planning which have been reviewed above, it is clear the DCO project will have a significant impact on the future of land use in Hillingdon over a number of decades. There has been frustratingly little evidence and details provided on impacts on areas of Green Belt, open space and BMV agricultural land whilst in other areas the evidence presented by HAL appears to conflict with that which was presented in the development of the ANPS such as a reduction in the creation of new jobs and the need for new homes. Most worrying of all, however, is the failure of the Preferred Masterplan or supporting evidence to fully address the knock-on impacts of airport expansion on land use planning outside of the DCO project boundary. The inward looking approach taken in the Masterplan cannot be an appropriate response to development proposals of this scale. HAL must address the future of areas surrounding the DCO boundary which will fundamentally change in character as a result of the negative externalities associated with airport related development. In this sense, the Preferred Masterplan does not yet seem to address the requirements of the ANPS in assessing and mitigating its own impact on surrounding land uses.

6. Community Impacts

6.1. Overview

6.1.1. The impact of expansion on long standing communities is immediately obvious. Expansion will result in the loss of 754 homes of which 739 are within the London Borough of Hillingdon (444 in Harmondsworth, 285 in Longford and 10 in Sipson). The loss of these properties has long been treated as little more than an accountancy exercise with fiscal valuations put on individual properties whilst ignoring the very significant social and health consequences arising.

6.1.2. These proposals are just the latest phase in this long and stressful process and with no clear resolution until an approval of a DCO should this ever happen; even then, this provides no certainty to people in the extended compensation areas who are unlikely to be furnished with all the necessary information on whether they will need to leave their homes or not.

6.1.3. Consequently, there are impacts that have been felt for a number of years without ever being properly managed or compensated by HAL. This remains an ongoing concern and will be addressed directly with the Department for Transport and CAA.

Uncertainty

6.1.4. The scope of the project does not, and cannot, properly deal with community impacts until there is absolute clarity as to what the extent of the project is including the extent of the take up of the voluntary compensation in the wider property zone.

6.1.5. The wider property offer zone (WPOZ) is directly linked to the likely impacts of expansion. The WPOZ is defined by properties that are likely to be subjected to impacts that would have consequences for a homeowner such that there is a possibility that they deem living in the area untenable. A compensation package, which is the same as for those who will directly lose their property, is offered.

6.1.6. Either the impacts will have a detrimental effect on health and wellbeing or they will not. The problem with the approach adopted is that there is absolutely no certainty as to who will remain in these areas and therefore what services need to be provided.

6.1.7. For example, the consultation identifies that Harmondsworth can be retained on a far reduced footprint, bordered by the airport immediately to the south and the new A4 route to the north. Harmondsworth School will be lost as will a variety of other community facilities.

6.1.8. Exactly how many people will leave this area is unknown. This uncertainty extends to thousands of properties and residents across the area south of the M4 corridor. This creates huge complications in relation to the need to identify services in the future.

Population

6.1.9. This response has already identified some discrepancies with the population projections used for the consultation material. For example, the figures in Table 11.14 in the Community section indicate that Hayes will grow by just 500 between 2025 and 2035. These figures are apparently based on GLA population growth but require far more explanation.

6.1.10. Using 'Hayes' as an example, figure 11.1 identifies this as actually the Pinkwell Ward and not Hayes. Why HAL has opted to change the name of the ward is unclear. It is also unclear as to why there is an arbitrary boundary that ignores the neighbouring wards.

6.1.11. It is absolutely essential that the correct population data is presented and the study area properly understood. For example, the supporting information in the Community section acknowledges the current deficiencies in open space in the south of the borough; this deficiency becomes more acute given the amount lost to Heathrow expansion. The fact that population increases without expansion will invariably put additional pressure on these deficiencies and evidently more so with expansion.

Consideration of Noise

6.1.12. The whole assessment on communities is fundamentally undermined by the lack of information on noise. This is particularly true of impacts on schools and other sensitive receptors as well as open space.

6.1.13. The noise information is only presented in indicative form and does not contain sufficient information to determine impacts such as day time noise (Laeq 8hr) to Schools and open space. The lack of LMax and frequencies of high noise events has also not been provided. Community uses are inherently time sensitive and therefore the same daily average assessment levels used for housing are not

appropriate. For example, areas of open space (i.e. playing fields) will have usage levels that peak at times during the day. The noise impacts during these peak times of usage are more critical to understand than simply bracketing each receptor as being the same.

6.1.14. This is such an important dataset that its absence renders the community assessment incomplete. For example, the proposed green spaces included within the masterplan in Hillingdon will all be in areas of high levels of noise albeit the information is virtually impossible to determine the estimated levels.

6.1.15. Cranford Park in particular is shown to be subjected to over 60dB and up towards 70dB. This is the average over the 16hour day. The likely high frequency of extreme noise events will make Cranford Park a wholly different environment than it is today. The importance of Cranford Park and Harmondsworth Moor to the west cannot be understated in their value to a population already suffering from a lack of such facilities. It is also noticeable that HAL relies heavily on Cranford Park, in particular, to offset much of the harm to existing green space although the noise impacts have clearly been ignored in presenting this mitigation.

6.1.16. It is entirely unrealistic to consider that these spaces, with so much noise, will continue to operate as they do now. This requires a far greater degree of interrogation with the precautionary principle properly applied. Furthermore, it undermines the mitigation proposals to provide enhancements to Cranford Park (already being developed by the Council) as if the noise impacts would be of no impediment to the enjoyment of the area.

6.1.17. These sites currently serve a far greater area than the areas immediately around Heathrow and the arbitrary study area presented. Consequently, any negative impacts will be felt across the areas far north of the M4 (across Hayes proper for example) and in terms of Cranford Park, into Hounslow and Ealing. This would then put pressure on the remaining resources, for example Minet Country Park. None of this has been adequately considered.

6.2. Sensitivity of Open Space Receptors

6.2.1. The Council commented at the EIA Scoping Stage about the prematurity of the work undertaken at the time. HAL had not undertaken a robust exercise in identifying receptors and assigning an objective based criteria. This superficial approach has been carried forward to this assessment where receptors are attributed a sensitivity based on a designation as opposed to their usage and

importance to the population they serve.

6.2.2. The assessment has not resulted in an appropriate consideration at a specific level. For example, in 11.7.21 it states that all district and metropolitan parks are of a medium level of sensitivity. Sensitivity is not determined based on a bland and ill-informed exercise that groups open space by such designations. In terms of open space, the sensitivity is inherently linked to a number of factors, in the case of Hillingdon, the current level of deficiencies are instrumental. For example, Cranford Park may not carry a national designation but as it is a primary resource in an area of deficiency, it takes on a far greater level of sensitivity. This is the case for much of the open space in the areas around Heathrow given they serve such a large population.

6.2.3. The failure to undertake a meaningful assessment of sensitivity undermines its significance. The Council does not therefore support the conclusions on the sensitivity of receptors.

6.3. Future Housing

6.3.1. As set out previously, there is a fundamental gap between the ANPS assessment and this consultation with respect to housing growth generated by the airport expansion. The ANPS considered 300-500 per annum was necessary whilst this consultation is not overly clear but states the impact would be minimal.

6.3.2. Once the true extent of Heathrow expansion and additional growth is disclosed, there needs to be a re-evaluation of the impacts on housing and the communities that will remain following completion of the project.

6.4. Loss of communities

6.4.1. At this stage it is not possible to determine the extent of the harm on communities as the impacts of the wider property offer (WPO) zone is not known. The approach to the WPO zone may well suit HAL by presenting a compensation offer to residents and communities, but it provides no certainty as to how best to offer services in the long term. For example, if dentists or GP services close down or choose to move because of the inhospitable environment created, then it is not clear where there would be suitable services left to sustain an active community.

6.4.2. As stated elsewhere, the Council does not see that it is tenable to keep schools open south of the M4. Many other valuable services will also go, and certainly

for several years (longer than allowed for by HAL), there will be a large construction site.

6.4.3. Consequently, it is not possible to reach any conclusion on the scale of harm or what these communities will look like or how many residents will remain in their homes on commencement of construction. In turn, the WPO in particular makes it entirely impossible to determine the extent of what is needed long term and what communities are left to sustain.

6.4.4. Furthermore, the need to relocate members of the community within Hillingdon will invariably put pressure on services outside of the alleged zone of influence of construction and operation. This does not appear to have been considered at all.

6.5. Assessment of Significance

6.5.1. The Council does not support the conclusions on the assessment of significant effects.

Missing Information

6.5.2. It is acknowledged that there is a greater level of information still to materialise. Given the interconnected nature of the effects, one missing piece of information can have a significant impact on the rest of the assessment.

6.5.3. The conclusions on significance are therefore not supportable.

Effects Related to Population and Housing Change as a result of the CPZ and WPOZ or changes in Environment

6.5.4. The consultation document identifies that in the overall context of the housing stock, the effects related to the CPZ represents a small change. This is not supported. Nearly 1000 properties will be lost in a very short space of time along with schools. Many of these households will be dependent on work and education facilities in the areas impacted and cannot therefore be expected to be absorbed as a normal occurrence into a wider market. Furthermore, the conclusions on this matter do not factor in the WPOZ which means that up to a further 5000 households could be in the same predicament as those located in the CPZ.

6.5.5. Such a sudden and large scale shift in a localised housing supply and demand, together with the already ambitious housing targets without Heathrow

Expansion, means this is an important factor that requires a greater deal of assessment.

6.5.6. It is noted with concern that the work to support the conclusions in the consultation document has not been undertaken.

Lack of Noise Information

6.5.7. As stated above, the lack of information on noise makes it impossible to fully determine the wider community impacts up to and beyond the M4. The impacts on Cranford Park and Harmondsworth Moor, together with the areas of open space tentatively presented to replace those lost, are entirely un-assessed in terms of noise.

6.5.8. Based on the limited information available, it must be concluded that the impacts to these areas would be sterilised or largely hindered by noise levels from the expanded airport. This would have likely significant effects far beyond the boundaries of the M4. It would also undermine the mitigation strategy which appears to ignore the key factor of noise.

Schools

6.5.9. The Assessment has completely ignored the noise impacts on schools. As a statutory education provider, the Council believes that all the schools south of the M4 would suffer from a noise environment so severe that it makes suitable education provision untenable.

6.5.10. The Council would not wish to have constrained learning environments to the extent they are likely to be as a result of this project. This is the same for both indoor and outdoor learning.

Little Harlington Playing Fields

6.5.11. The immediate construction of the runway will have a detrimental impact on these important playing fields. The amount of HGVs, dust, stockpiling, material movement etc. presents an inhospitable environment. On the opening of the third runway, the playing fields would be heavily impacted by noise. These playing pitches are used by a range of different clubs for sporting events including coaching.

6.5.12. For educational reasons, there has to be a suitable maximum level of noise that allows for these activities to take place, for example sports coaches need to be

able to have their instructions heard. Consequently, the noise impacts need to be measured over a shorter period of time and maximum noise levels and their frequencies are vital.

6.5.13. The playing fields are then lost to the northern parkway with the masterplan only tentatively reproviding them. The area of re-provision is not clear; not on Council land and it does not appear to have a suitable form of access. It is also not clear how the equivalent offering can be accommodated on the new site. These constraints are a significant impediment before considering that the playing pitches (if they practically fit on the area allowed for) are moved closer to the M4, next to one of Europe's largest car parks and bordering a thin strip of land dedicated to European Protected Species.

6.5.14. The position presented on Little Harlington Playing Fields therefore lacks credibility. This receptor is not just a low level recreational space, it is one of the most heavily used playing fields in the borough servicing many communities north of the M4 as well as around Heathrow. Given the current deficiencies in the area, these playing fields carry a level of importance that is disregarded by HAL.

6.5.15. The Council considers the construction impacts would be a significant constraint and put the viability of the pitches at threat. The operational phases of the expanded airport would result in a noise environment that itself would most likely render the facility unusable to the extent it currently does. When the operational noise impacts are combined with the myriad of other constraints, then the viability of the playing fields as a highly important asset is removed. Losing this facility would have profound impacts far beyond those allowed for by HAL. The proposed alternative is entirely inappropriate. The ANPS requires replacement facilities to be suitable alternatives. The proposals are simply not suitable.

Wider Study Area

6.5.16. The Council considers that the approach to assessing impacts across a wider study area to be entirely inappropriate. The impacts at a local level need to be given far more consideration.

6.5.17. Much of the community impacts are in areas of deprivation in a relatively localised area. The assessment needs to be more targeted, focussed and honest about the impacts at a local level. Significance in this instance needs to be determined on population and demographic impacted and not that the loss of

housing in the Heathrow Villages will have no detrimental impact on a study area that includes Maidenhead over 20 miles away.

The Green Loop

6.5.18. It is noted that the impacts on Cranford Park, Little Harlington Playing Fields and Harmondsworth Recreation Area are not considered to be significant adverse effects. The Council does not support these conclusions. However, it is noticeable that the proposed green loop is purposed to have significant beneficial effects. There is a substantial bias in this reporting and there is a clear overstatement of the efficacy of this part of the proposal.

6.5.19. There is a great deal of doubt over HAL's assessment of the role of the multifunctional green loop which is essentially a walking and biking route around the perimeter of the airport. The plans lack credibility at this stage and there needs to be a much greater level of supporting evidence as to why this part of the proposal will be beneficial, particularly when factoring in the noise and air quality problems that will be residual impacts following completion of expansion.

Construction Impacts and Housing

6.5.20. The Community chapter refers to 'project supported accommodation' as being a source of temporary housing for construction workers. Other workers may utilise tourist accommodation.

6.5.21. Project supported accommodation is not defined and needs clarification. As stated elsewhere, it is not plausible to rely on tourist accommodation for construction workers given the net reduction in hotels (unless replacements are constructed ahead of demolition which is highly unlikely) and the net increase in passenger numbers (early growth); consequently, the pressures on existing communities to accommodate construction workers needs proper consideration.

Impacts of Airport Supporting Development

6.5.22. The approach taken by HAL is to dispense with standard and statutory planning terminology when describing land uses and instead it opts for the term 'airport supporting development' as a catchall term. The definition for this term captures a vast array of possible land uses some of which are not at all appropriate neighbours for community facilities, particularly open space.

6.5.23. It is therefore not possible to consider the suitability of some areas identified for replacement community facilities which will be located next to unidentified airport supporting development.

Traffic and Transport

6.5.24. As set out elsewhere, the impacts on traffic and transport are not properly developed. Much of the areas in the south of the borough are heavily congested. Any increase in congestion, as is likely, will have further impacts on community facilities not adequately considered in this consultation. This assessment can only take place once the information is shared by HAL and properly understood.

Townmead Football Club and Open Space

6.5.25. The plans include the proposed siting of a flood storage area (NO6 on the Masterplan) on top of an existing well used recreational facility. The intention is to relocate the football club facilities on a neighbouring site shown on the masterplan.

6.5.26. The document correctly identifies that the current playing field has two full size 11 aside pitches but fails to recognise that there are additional smaller facilities. There will therefore be a net reduction in the land available for sporting facilities on the new site.

6.5.27. The area identified for the re-provision is also known to flood, thus constraining the site further. Finally, there are no clear plans indicating whether the two 11 aside pitches would feasibly fit on the site, let alone any allowance made for the smaller playing areas (for younger teams and training).

6.6. Conclusion

6.6.1. The PEIR fails to give adequate attention to the true community impacts. There is a disregard for the current sensitivities related to open space; a lack of understanding about the loss of long standing communities; a failure to grasp the impacts on remaining communities and no accounting for the future growth of the airport.

6.6.2. Furthermore, there is a fundamental issue with not having any sense of what happens in the wider property offer zone. This has a ripple effect throughout the communities rendering it impossible to determine the effects of the scheme or even how to accommodate and service it.

7. Community Impacts - Schools

7.1.1. This chapter looks at the specific impacts on schools. Commentary is firstly given on the various impacts overall and then commentary given on more site specific impacts for individual schools. The Council has very serious concerns that insufficient consideration has been given to the potential school impacts and that such impacts are not sufficiently considered or understood through the consultation documents. Furthermore, it is considered that the expansion masterplan must fully consider all school impacts and propose appropriate mitigation for every school adversely impacted by Heathrow expansion.

7.1.2. The Heathrow Airport expansion consultation plans and preferred masterplan (referred to as 'the Plan') would increase air and noise pollution, and lead to significant movement of families and pupils from their schools across and beyond the Borough.

7.1.3. The Council opposes the Plan due to various harmful impacts, including the very significant increase in noise and air pollution, carbon emissions, additional traffic movements (that would damage health and well-being) and the destructive impact on existing communities. The impact on children and young people's health and cognitive development from exposure to air pollution is of particular concern. Should the plan progress, the scale of change is likely to seriously affect schools over a wide geographical area and in some cases it will make it impossible for them to function on their current sites. In other cases, substantial investment in mitigation measures will be required to enable the schools to continue to function.

7.1.4. The nine Hillingdon schools that would be most affected are all shown (but not fully named) on the Heathrow Airport Expansion Consultation Plan's Preferred Masterplan. These are set out on the map below:

7.1.5. The consultation documents refer to the proposed demolition and relocation of Harmondsworth Primary school since it would be directly underneath the third runway. Nonetheless, the Council believes the proposed expansion plan would also have a substantial impact on two other primary schools; Heathrow Primary and William Byrd Primary to the extent that continued operation of these schools would be untenable. The expansions plan would also have a damaging impact on five more primary schools and one secondary school.

7.1.6. Currently, these nine schools have 4730 total pupils on roll, nearly 10% of all those in Hillingdon. The scale of impact is such that it could completely undermine the Council's ability to fulfil its statutory duty to provide sufficient school places for resident pupils.

7.1.7. The movement of pupils could also affect efficient place planning across not just Hillingdon, but also impact on school placement planning for adjoining authorities (if parents move children to schools out of the Borough, retained schools are harmed to such an extent parents seek to educate their children elsewhere).

7.1.8. Most of the pupils in the affected schools live south of the M4, many are from

homes that will be demolished and then purchased through schemes set out in the Plan. It is unclear what will happen to all these families. At this stage it is unclear where they would move; to within or beyond the Borough. There would simply not be capacity for all those being displaced from homes south of the M4 to be accommodated in schools north of the M4. It should be noted that there are already existing pressures on these schools from house-building in Yiewsley/West Drayton and Hayes which are all major housing growth locations. Therefore, some schools will need to be relocated into new buildings, or expansion of existing schools will be required.

7.1.9. The Heathrow masterplan needs to consider the full school impacts. It is completely clear to the Council that no effort has been made to do this. As part of the consideration by HAL of school impacts, there needs to be proper engagement, not just with the Council, but with all parties involved in school governance, such as the Governors and Trusts of affected schools. School governance is undertaken through a coalition of interests working together, but performing different functions, all aimed at enabling each school to operate and to achieve its stated aims and objectives. In this regard it must be stressed that not all schools are local authority maintained and the 9 affected schools each have their own individual governance arrangements.

7.1.10. It is important to note that the Council's statutory duty of place planning and securing sufficient school places applies to all the schools, even though they may have a range of governance arrangements which may affect the approach to future stages of compensation and mitigation planning, for example:

- 3 schools are Community schools - The Council owns the site and buildings and is the ultimate employer of staff;
- 4 schools are Academies (all different Trusts). The Council is the residual landowner but leases the land to the Trusts for the use of school buildings and the different Trusts employ the staff;
- 1 Foundation Secondary. The Council owns the site and buildings and is the ultimate employer of staff;
- If an academy school ceases to operate, the land reverts back to the Council;
- If any schools close due to airport expansion, the Council and/or the responsible Trust will expect to be compensated for the associated costs, including staff redundancy and pupil transport to alternative sites.

7.1.11. The table below gives full details of all 9 affected schools, including whether they are community or academy schools.

LBH SCHOOLS Summer 2019	Total Forms Entry	Pupils living South of M4	Pupils living North of M4	Pupils living Outside of LBH	Totals
Harmondsworth Primary (Community)	1	114	71	9	**194**
Heathrow Primary (Community)	2	237	153	14	**404**
William Byrd Primary (Academy)	3	412	104	29	**545**
Total impacted south of M4	**6**	**763**	**328**	**52**	**1143**
Laurel Lane Primary (Academy)	2	13	313	8	**334**
St Martin's C of E Primary (Academy)	3	18	157	1	**176**
Cherry Lane Community (Community)	3	36	540	12	**588**
Pinkwell Primary (Academy)	5	23	642	17	**682**
Cranford Park Primary (Academy)	4	18	807	11	**836**
Remaining schools impacted*	**17**	**108**	**2459**	**49**	**2616**
**the list of schools impacted may increase once HAL has released more information*					
Primary Schools Total	**23**	**871**	**2787**	**101**	**3759**
Harlington Secondary Foundation (6.5FE)	**6.5**	**131**	**804**	**37**	**972**
TOTAL 23FE primary 6.5FE Secondary	**29.5**	**1002**	**3591**	**138**	**4731**

7.1.12. All the above schools and pupils will be affected by the increase to 260,000 more flights a year, a huge increase in individual incidences of noise with minimal 'down time' between. For some schools this will create a health and safety bar to outdoor play or sports, even if the buildings can be insulated. The Government agreed that once the Plan is approved, 'the Cranford Agreement' ends, and so the Plan proposes all runways will be used in either direction. This direction will change at either 2pm or 3pm every day. (The time is linked to air traffic control shift changes). The runway alternation patterns will repeat every

four days, so day five will have the same pattern as day one. This could seriously affect some schools for almost a whole school week and become intolerable for teaching and learning, and significantly affect the physical and mental health of both pupils and staff.

7.1.13. The Council reserves its position as to whether a greater number of schools than those identified in the table above are affected as more information becomes available on the exact future operation of the airport. It may become clear that more schools further afield will require mitigation from damaging pollution and other impacts of the Plan. Furthermore the impacts on each of the nine schools the Council has highlighted will need to be considered further as and when more information becomes available concerning the various impacts.

7.1.14. The impacts of the masterplan are such that the Council will likely need to liaise with the airport operator to build scenarios of likely local child populations over each 5 year period, across existing primary planning areas 12, 13, 14 (that is south of the mainline railway), the area just north of the M4 and all to the south of it. The Council will also need to adjust projections for school places across the borough and model where families may move to in the Borough and where relocated schools or expansions will be needed. It should also be added that if the Council remodels its school placement plans this may have a knock on impact on school placement planning for adjoining authorities.

7.1.15. If the Plan continues to progress, the Council will need more accurate data on likely noise, air pollution and possible vibration and wake turbulence (if applicable, as this does not appear to have been fully considered despite the many documented aviation accidents attributed to it) impacts on each of the nine school sites. The Council believes the airport operator has some recent data and tests from school sites that have not been shared with the Council or the relevant schools.

7.1.16. In outline, the Council will need to agree compensation and relocation plans for Harmondsworth and Heathrow primary schools, and probably also William Byrd primary school (dependent on the further information provided).

7.1.17. The masterplan will also need to identify suitable mitigation works to limit noise and air pollution and vibration at Laurel Lane, St Martin's CE, Cherry Lane, Pinkwell and Cranford Park primary schools, and the new building of Harlington Secondary school, and its current and any temporary buildings.

7.1.18. The Council will also need far more information on the timing of construction

and the decanting of residents in order to fulfil its place planning statutory duty, including more consideration and details of:

- The phasing of families being offered temporary re-housing and the payments made for moving out the CPZ and the WPO2;
- Likely phasing of construction works near each school, particularly Harmondsworth, Heathrow and William Byrd primary schools;
- Timing of changes to roads which could prevent pupils or staff accessing schools;
- The relocation of Harmondsworth Primary school and the proposed site in Stockley. All the details of this will need to be agreed by the Council;
- The potential need for compensation and the relocation of Heathrow and William Byrd schools;
- Ensuring other school buildings are appropriately insulated from noise and air pollution and vibration(Laurel Lane, St Martin's CE, Cherry Lane, Pinkwell and Cranford Park schools); and
- Ensuring Harlington school is fully insulated from noise and air pollution, vibration and other impacts; or alternatively, supporting its relocation to a different site.

7.1.19. Throughout the DCO process, changes to property ownership are likely to occur, irrespective of the final outcome. This will change the population living south of the M4, with a possible decrease in families. If this occurs it will affect individual schools management, and financial and staff planning. The Council will expect the Airport to liaise closely, sharing information about changes to housing occupancy (in part as it is a major property owner itself), to enable effective school place planning in order to secure safe education for pupils in those schools and living nearby.

7.1.20. The Council would expect the airport operator to consider the impact of very large numbers of temporary construction workers on local services such as education provision (this may entail controlling whether any housing provision is for families and not for construction workers). Additional children would of course exacerbate all of the above identified issues.

7.1.21. The Plan states, as per the ANPS (5.245), the Action Level for schools will reduce noise to 60dB and Heathrow will compensate for necessary work, also on ventilation and to strengthen roofs to avoid wake vortex damage. This would still leave pupils exposed to noise above a desirable level for learning, with little

time between the anticipated peak of each separate noise disturbance.

7.1.22. The World Health Organisation in 2018 reported that average noise levels above 45dB are associated with adverse health effects. Air pollution from aircraft, the increased operation of three runways, increased road traffic and the construction works would all be likely to exceed acceptable limits. Air pollution increases asthma, high blood pressure and respiratory diseases in children and has other adverse health impacts on children. To date, the Council has not seen any test data which enables detailed consideration of the health impacts on the affected school sites. It is likely, for some schools, that the recommended limits will be exceeded, and this will have a bearing on both whether outdoor play is possible and whether the continued operation of schools is realistically feasible or desirable.

7.1.23. Research studies show that aircraft noise exposure at schools is associated with children having poorer reading and memory skills and lower attainment. There is also considerable recent literature on the adverse health effects of noise on children's education and cardiovascular disease. The RANCH study conducted among primary school children near major airports in Europe, matched for socio-economic status, reported that chronic exposure to aircraft noise has a negative effect on children's reading and learning outcomes. A study from Germany has not only confirmed these findings, but also shown that children with language or retention disorders, or who are learning a second language, experienced more impairment . Studies near Heathrow schools indicate that even double glazing is insufficient for noise insulation.

7.1.24. External play and sports are very difficult for schools currently under the flight paths in Slough, Richmond and Hounslow and the airport has provided Adobe buildings in the playground for outside play at some of these locations . The cumulative impact of the three runways and extra flights would make any external activity intolerable and unsafe in some Hillingdon schools, which would consequently threaten their continuing viability.

7.1.25. It is unclear at this stage precisely how many school places the Council will need relocated and exactly where in the Borough, since this will partly depend on parents' decisions. As referred to previously, all stakeholders in the education sector will need to be fully consulted and engaged with as the masterplan progresses. Temporary relocations of schools may need to be considered, along with the impact on other nearby schools. Ultimately it is up to parents to apply for places at schools. If oversubscribed, the admissions criteria set out selection priority. Every community school shares the same admissions criteria and

Academies and foundation schools set their own criteria. Clearly, relocating both schools and pupils may require temporary or permanent changes to admissions criteria, to avoid the risk of pupils not securing places, or of unintended wider moves creating problems with more schools.

7.2. Site Specific School Impacts

7.2.1. The following section comments on site specific school impacts and possible mitigation requirements.

7.3. Harmondsworth Primary School

7.3.1. The Plan states this school would be demolished early [2021/22] as it is on the site of the proposed runway. The Council owns the site and would need compensation for the loss of the school and for the costs of any relocation. The Plan proposes relocation in Stockley Park over a mile north east, the other side of the M4 and at a location in the same primary planning area as Harmondsworth. Though a few existing pupils live close by, most do not, and it is not clear where current parents would ideally choose their children to be educated. The Council has a statutory duty to ensure all children have a school place. This will need clear admissions criteria to be fair to them and to avoid disrupting other schools. The timetable is very tight and the suitability of the proposed site (which has its own planning issues) needs to be discussed with the Council as soon as possible, together with the number of places needed. If other schools cannot continue to operate they will also need to be relocated, onto this or other sites.

7.4. Heathrow Primary School

7.4.1. The Council believes this would also have to be relocated early [2021/22]. It will not be able to function as a primary school on its site from the start of construction and will have fewer, if any, local pupils to serve. It was identified for demolition by HAL until this most recent plan, which leaves it metres from the runway, with changes to its road access, local housing and next to a major construction compound and the opening up of historic landfill sites. It is considered to be completely irrational for it to be implied the school could continue to operate given its proximity to the proposed new runway.

7.4.2. The school has some existing noise insulation, but the combined construction disruption to roads, noise, smells and air pollution will make it inoperable.

7.5. Laurel Lane and St Martin's Schools

7.5.1. These two schools are on adjoining sites to the north west of the proposed runway, a short distance back from the M4, but the location will mean greater take-off and landing noise, air pollution and odour nuisance (aviation fuel etc...). The Council will consider the impacts further as more information is produced. At the very least, the buildings will need to be insulated to protect from noise nuisance and they will also require improved ventilation. The noise and pollution levels in the playground will need to be carefully considered.

7.6. Cherry Lane

7.6.1. This school is located just north of the M4, almost directly north of the end of the proposed new runway and is closer to the expanded airport than the Laurel Lane and St Martin's Schools. The proximity to the new runway is the principal concern. It would be overly simplistic to say its impacts are reduced by virtue of it being north of the M4 as it would be as close to the new runway as Harmondsworth Primary School. The Council will consider the impacts further as more information is produced. At the very least, the buildings will need to be insulated to protect from noise nuisance, will require improved ventilation and possibly works to strengthen the roofs. The potential noise and pollution levels in the playground will need to be carefully considered as part of the masterplan process.

7.7. Pinkwell

7.7.1. This is a large Primary school in several buildings located near the east end of the new runway, so it will be considerably more exposed to noise after take-off/landing than at present. The school has experienced falling rolls over the past few years as local families have chosen to move away, and local housing has more airport-related adult workers and temporary housing for vulnerable families, whose children make up a high proportion of the roll.

7.7.2. The Council will consider the impacts further as more information is produced. At the very least, the buildings will need to be insulated to protect from noise nuisance, will require improved ventilation and possibly works to strengthen the roofs. The noise and pollution levels in the playground will need to be carefully considered.

7.8. Cranford

7.8.1. Although further from the run-way, it will be in the easterly take off/ landing zone and may need significant insulation from noise and air pollution very early on since flights would begin in both directions on the current northern runway before the new runway is built, when the cumulative impact would increase. Outdoor play could be severely compromised, as has been experienced by schools in Hounslow and Slough.

7.8.2. The Council will consider the impacts further as more information is produced. At the very least, the buildings will need to be insulated to protect from noise nuisance, will require improved ventilation and possibly works to strengthen the roofs. The noise and pollution levels in the playground will need to be carefully considered.

7.9. Harlington Secondary

7.9.1. Beyond the end of the school's playing fields the Plan shows that in phase 1, the Frogs Ditch river will be diverted. This must be done with no impact on the school. The DfE has agreed to fund a major plan to expand and rebuild the school on its site with work to start in 2020. When finished, the existing building will then be demolished. During the work, pupils may at times be in temporary buildings. This is important since the Plan states that immediately, extra flights would affect the school. The new build could include the required significant insulation against noise and air pollution and strengthened roof, but the DfE would logically expect the airport to contribute to the extra cost (which has been reported to be at 16%-20% additional cost to the budget for buildings in other boroughs near the flight path).

7.9.2. The new runway ends take off/land about 1 mile, 1700m from the new school building. Outdoor play and sports would be seriously affected by the noise and air pollution and the operation of the school impacted upon by extreme noise, vibration, smell of fuel etc. This needs further investigation to understand the extent of mitigation required.

7.9.3. Nonetheless, if the Plan progresses, there needs to be serious consideration given to the complete rebuilding of the school at a different location further away; where pupil health and education would not be so seriously affected. Currently 13% of the school pupils live south of the M4.

7.10. William Byrd

7.10.1. The school is located south of the M4 and will face severe impacts due to the location directly under flights paths and which is not far from the end of the new runway. The Council is concerned that the likely impacts may necessitate the school also needing to relocate. Noise & air pollution are likely to make it inoperable from the start of construction, and it is almost in the line of the new runway so will be extremely exposed to take off and landing noise. It would be affected by the construction and then pollution from the parkway north car park with 24,000 spaces (the largest in the world), located a less than 800m from the school boundary. The number of local pupils is likely to reduce since some local housing is within the WPOZ.

7.11. Conclusion

7.11.1. The issues relating to schools have not been adequately considered. There is a significant concern that HAL has not acknowledged the impacts of two schools south of the M4 that will not be demolished, even in the absence of detailed noise information it should be obvious that the impacts are likely to be of a degree that makes them unsuitable as primary education facilities.

7.11.2. This issue is made worse by the fact HAL is effectively offering to purchase to buy the surrounding properties thus altering the catchment area of the schools; that said, it is not straight forward to suggest that if the communities are destroyed or removed, that the schools are no longer required. Education provision is far more complex than that, not least because many children travel from north of the M4 to schools to the south of it.

7.11.3. The impacts on the remaining schools immediately north of the M4 are equally dismissed without any understanding of the noise, traffic or pollution impacts.

7.11.4. The proposals presented would have a far greater impact than currently acknowledged by HAL. The need to relocate three schools or at least consider the implications of the loss of three has significant ramifications for a far more populated area than currently accounted for.

7.11.5. It is difficult to see where the solutions can be found given the current constraints facing the Council when securing an appropriate education provision for existing communities. This is a stark reminder that the decision to locate airport expansion on top of existing communities is far more complex than presented within the PEIR.

8. Surface Access and Highways

8.1. General

8.1.1. The surface access implications of Heathrow expansion are of significant concern, with the potential for far reaching, long term and serious consequences. In general, the road network linked to Heathrow airport is already at full capacity making any further interventions very sensitive.

8.1.2. Inherently linked to the existing traffic problems is the impact this already has in regards to contributing to increasing levels of air pollution in the area, as well as increases in journey times for residents, many of whom do not require access to the airport, as well as countless other businesses, industries and users of schools, open space, parks and vital services, i.e. Hillingdon Hospital and other local GP surgeries.

8.1.3. It is in this highly sensitive context that the following extract from the documentation needs to be read:

> *"The surface access modelling that informs the PEIR and PTIR is preliminary and will be subject to further refinement and development. The process which has been undertaken in the development and implementation of the surface access modelling is not covered in this chapter, but is documented in a series of detailed technical modelling reports which do not form part of this consultation but have been shared with relevant stakeholders". (our emphasis)*

8.1.4. The Council has never received this information. Given it is the highways authority in which Heathrow airport is located, it cannot be considered to be an irrelevant stakeholder.

8.1.5. Without this modelling data, the consideration of the impacts of a project that will fundamentally affect a wide transport network becomes a purely theoretical exercise.

8.1.6. Coupled with this is the attempts to present some of the conclusions from the unseen modelling on to maps; an exercise that is of no assistance at all (see opening sections of this response).

8.1.7. Consequently, the Council cannot interrogate the surface access impacts of this scheme and it cannot understand what the likely impacts are, the specific

locations of concerns or the likely significant effects. The conclusions and outputs reached in the PTIR cannot be validated or verified. The Council cannot therefore provide any assistance at this stage as to whether the conclusions reached are realistic.

8.1.8. It is extremely important that this information is made available prior to the submission of the DCO application. It would be unreasonable and irrational to burden the Council with countless pages of data and information all within the short window of the DCO consultation.

Examples from HS2 Environmental Statement

8.1.9. To present the information in a far more helpful manner, HAL would be well advised to consider the presentation of material used for the HS2 Environmental Impact Assessment. In particular, the phasing plans provide a yearly breakdown of construction impacts and the sequencing of events, and the traffic plans showing the numbers through each phase of construction on specific routes.

8.1.10. This approach would be far more preferable to the scattergun presentation used in this consultation.

8.2. Modelling

8.2.1. Notwithstanding the above, the consultation confirms that HAL is using its own traffic models (HESAM and LASAM) to determine the impacts of their proposals. It is not clear why the suite of models which are already used by the relevant highways authorities such as TfL and DfT were not used. As stated above, HAL has not provided the appropriate details to the local highways authority (the Council) or engaged meaningfully with the regional transport authority (TFL). Controlling the flow of information in this way is unhelpful.

8.2.2. It is not clear whether the HAL developed traffic models are adequate, or whether the inputs and assumptions used in the modelling process (the raw data) are satisfactory. The Council has raised concerns elsewhere about the decision to shun nationally used housing data opting instead to use something different, so there are obvious concerns about the lack of transparency in regard to the inputs and assumptions used in the HAL transport models.

8.2.3. As stated in the air quality section of this response, Chapter 9, the ability of the transport models used to appropriately assess aspects such as congestion, the assumptions used on distribution patterns around the road network in congested conditions, the ability to accurately assess congested junctions etc are

vitally important aspects as they form the inputs into the air quality modelling processes. Any defects in the traffic modelling will significantly impact on the results arising from the air quality assessment.

8.2.4. An independent peer review of the verification and validity of the HESAM and LASAM traffic models with their assumptions and modelling errors is requested and should be supplied for public scrutiny prior to the submission of the final DCO application. The modelling also has to be shared with, and agreed, with the Highways Authority. If HAL's models are wrong or biased to present a favourable position of expansion, then any future operational problems are left to the publicly funded highways authorities. HAL is not a publicly funded highway authority.

8.2.5. There are also serious questions over the HAL produced data on passengers and colleagues which lack credibility as set out in the opening sections (section 3.5). This raises further concerns with the inputs.

8.2.6. There are obvious concerns about the choice to not use TFL approved and standard London wide modelling as other major developers do when contemplating developments within the London area. This raises very serious questions over the transparency of the inputs into the model, particularly regarding the background information.

8.2.7. All of this casts significant doubt on whether the surface access impacts are fairly and honestly described; any defects in the data could understate the likely significant effects in regards to the surface access implications of the DCO project.

8.3. Peak Periods

8.3.1. The HAL model appears to use peak times that are inconsistent with the standard approach to traffic modelling. In particular, the PM peak is described as simply one hour between 5 and 6pm. This is not an accurate representation of the traffic movement in West London.

8.4. Modal shift to Public Transportation

8.4.1. This report has already identified the significant concerns over the HAL produced figures on employment and the implications for passenger numbers. It is essential that there is clarity on this issue as this links directly to the requirement for HAL to demonstrate that expansion will not generate 'anymore landside

airport related traffic than today' (ANPS, 2018).

8.4.2. It is difficult to adequately consider whether HAL is on the correct path to achieving this with expansion due to the inadequacy of the information provided. However, at a theoretical level at least, there appears to be significant doubt.

8.5. Baseline Inputs

8.5.1. The current public transport usage across both passengers and colleagues is understood to already be below forecasted levels. The Heathrow 2.0, 2018 Sustainability Report confirms that the modal shift target of achieving passenger to public transport of 43% by end of 2018 was not met. In fact it has fallen from 42% in 2017 to 40.6%. Whether this is solely down to the problems with the opening of Crossrail, as the Report indicates, is not clear.

8.5.2. What it does demonstrate is that if the provision of adequate public transport is not provided, then the modal shift anticipated will not be met. It also demonstrates that HAL is entirely reliant on areas outside their control for improvements (assuming the Crossrail justification is correct).

8.5.3. Further, without expansion, there is predicted to be a very low increase in public transport usage, in particular, HAL is forecasting just an additional 2% of colleagues using public transport. If the current trends were more positive, then there would invariably be more confidence in the ability to reach the more challenging target of no more airport related traffic than today. As it currently stands, there is little confidence that this has been demonstrated.

8.5.4. Finally, the DCO process is only considering a fraction of the expected growth associated with Heathrow expansion. There will be a net reduction in industries and offices as a consequence of the proposals. In the future this will be rectified, but this future growth does not form part of the DCO. It is entirely unclear what figures are being used in HAL's calculations.

Baseline - Car Parking

8.5.5. It is not clear from the documentation as what extent HAL has considered the array of car parking currently serving the airport but outside the control of HAL.

8.5.6. HAL will be well aware of the multitude of problems of ad hoc parking services in operation as well as the unauthorised use of local neighbourhoods. There must be a clear indication as to the baseline car parking position in the DCO

application.

8.6. Transport Interventions

8.6.1. The inputs are just one part of a model. In this case the output, i.e. the impacts, are predicated on the transport interventions which have been set out across a number of different documents.

8.7. Bus Priority

8.7.1. One of the suggested interventions to assist public transport to the airport is to increase reliance on bus priority on the network. The full details are not included regarding when and where with further work is to be provided.

8.7.2. However, the Surface Access Strategy document does provide an overview and unfortunately includes the image below:

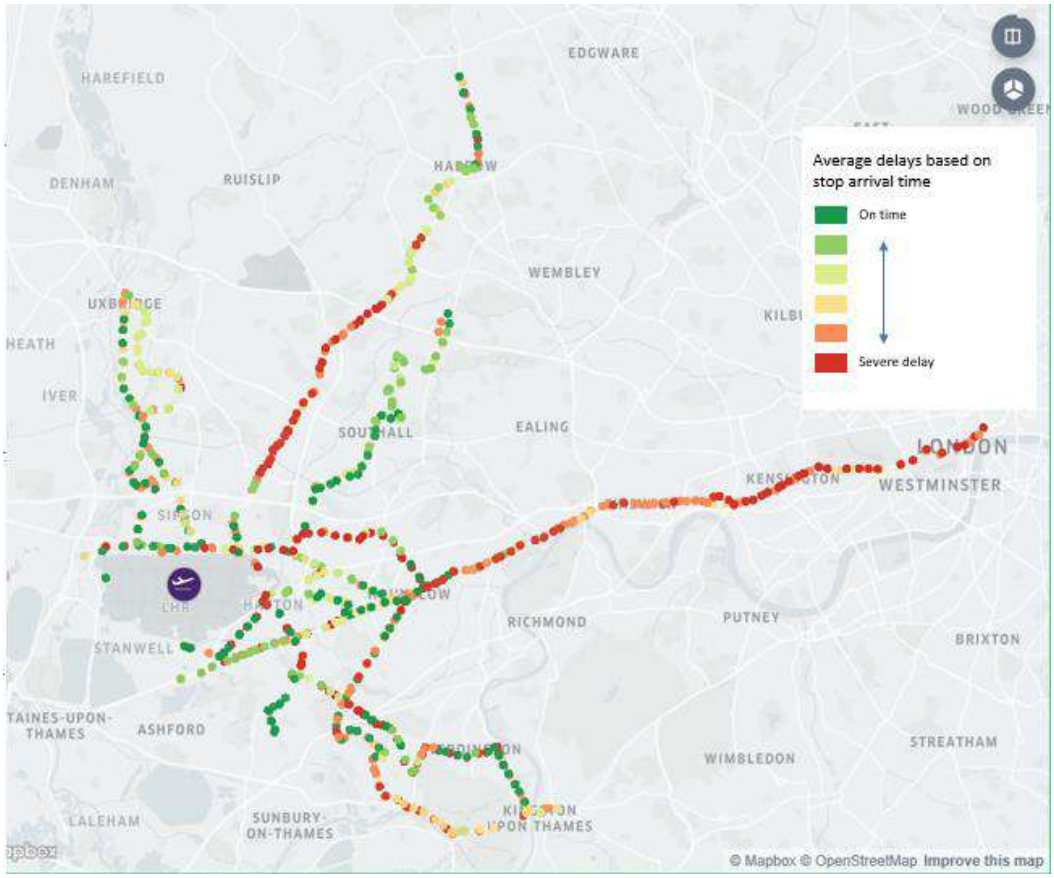
8.7.3. The bus on the left side of the image is used as an implied benefit of bus priority lanes and therefore how passengers can access the airport quickly and efficiently. Whilst this may be a significant benefit for the passengers, the two lanes of traffic on the right of the image set out the consequences for everyone else. It is important to remember that not everyone in the area of Heathrow or on the wider network is travelling to the airport. The congestion in the two lanes provides a clear indication of the impacts on other road users.

8.7.4. In addition, as stated previously, and referred to in Chapter 7 Air Quality of this response, if the potential congestion arising from the provision of bus and coach priority lanes is not adequately represented in the outputs from the traffic model then the implications for congested road networks and increases in pollution across a wider area will not have been captured.

8.7.5. The information on where bus priority lanes will be used is still being developed but there are significant concerns. For example in the SAS it states at 3.4.2:

> *"Using real-time bus data from TfL we have analysed bus journey times to identify corridors that experience reduced reliability. From this analysis the following corridors have been identified for further investigation into bus priority measures":*

8.7.6. It then provides this poor quality image:



8.7.7. One of the routes appears to be the A312 out to Harrow through Hillingdon. The bus delays identified in 3.4.2 are generally linked to the level of congestion on this network. Putting bus priority measures in this location is only likely to result in further congestion for other road users. This illustrates the fine balance in transport planning and the need to provide the highways authority with the relevant information.

8.8. Cycling and air pollution hotspots

8.8.1. The SAS also sets out initiatives for increasing the uptake in cycling to the airport, presumably aimed mainly at Colleagues who no longer have a car parking space. Whilst in theory the increased use of cycling is positive, there would have to be a major improvement to the infrastructure which has been implied in the consultation but not detailed. Furthermore, the roads around Heathrow are a) not overly inviting for cyclists from a safety perspective and b) of such a poor air quality that this would most likely have a negative impact on the uptake.

8.8.2. It is not clear what percentage of colleagues is forecast to cycle to the airport but there needs to be evidence that this is realistic. Without the project, the current forecast is for minimal take up of cycling and the current percentage is relatively low. HAL is under significant pressure to alter reliance on vehicular transportation but this should not lead to unlikely solutions that cannot be evidenced or ultimately controlled.

8.9. Coach and Bus Uptake

8.9.1. The Council acknowledges that HAL will not be providing any new physical public transport interventions, i.e. new rail connections or enhancing existing lines. The lack of a single major intervention makes it difficult and complex to achieve the public transport modal shift required.

8.9.2. As an alternative, the primary solution appears to be to improve bus and coach links. However, it is noted that both the SAS and the PTIR provide very little detail of what routes will be improved and what networks will benefit.

8.9.3. The PTIR consistently refers to a Bus and Coach Delivery Plan but provides no link to this document and it does not appear to be available as part of this consultation.

> *"There are expected to be further increases in levels of ridership on the coach network between the Future Baseline and the With Project*

scenarios. Therefore, as part of the SAP, Heathrow has developed potential measures to improve coach infrastructure and services, supported by a Bus and Coach Delivery Plan, to address the forecast increases in coach demand between the Future Baseline and the With Project scenarios.

Further engagement with HATF and coach service operators is planned, to develop and refine these coach proposals".

8.9.4. It therefore appears that the primary intervention to achieve a modal shift in public transportation has not been fully developed, thus raising further doubts about the conclusions reached in the PTIR.

8.9.5. This consultation should be the point at which the project is sufficiently fixed to enable consultees to understand the impacts, and provide comments on the detailed proposals to manage them. As it is, the impacts are questionable and the mitigation far from certain or developed.

8.10. Cumulative Impacts and Early Growth

8.10.1. It is noted that the HAL transport model is not compatible with the construction phase starting in 2022. The consultation document therefore contains a number of uncertainties regarding the 2022 - 2026 phase.

8.10.2. This period will see the M25 realigned, the A4 realigned, substantial construction impacts south of the M4, road closures, diversions, altered bus routes, disruption to businesses servicing Heathrow, large construction compounds and all whilst Heathrow operates normally. On top of that, there is a proposal, Early Growth, for 25,000 additional flights, 5000 more colleagues and thousands more passengers.

8.10.3. None of this appears to have been assessed and no details are presented as to what this phase of the project will look like or where the impacts will be felt. This is a significant gap in the information that needs to be filled as soon as possible.

8.11. The new alignment of the A4 and new junction near the Parkway

8.11.1. The Council cannot comment on the efficacy of the proposed road layout of the A4, the new junction south of the M4 spur, or the impacts near the A312 Parkway because no information is provided.

8.11.2. This is a particularly sensitive network that is already at full capacity. The

general junction arrangements are concerning, particularly as the A4 corridor would be the logical place for further airport related development (i.e. the hotels, offices and sheds that will deliver the jobs that supported the Heathrow decision but are not included within the DCO).

8.12. General Travel Restraint Tools

8.12.1. The Council is the highway authority responsible for the majority of the Heathrow supporting road network which is already heavily congested. This requires claims of general and travel restraint tools to be properly evidenced. HAL must be able to present credible evidence about the efficacy of these measures, particularly as they form a key element of forcing people out of private transportation modes.

8.12.2. This evidence has not yet been made available.

8.13. Daily Freight Movements (existing and projected average two-way figures)

8.13.1. The figures below show the steady increase in air cargo, servicing, retail and waste related activities.

- 2017 - 10,900
- 2030 - 15,365
- 2040 - 17,190

8.13.2. A comprehensive traffic appraisal needs to provide a much greater degree of information about these movements, including source and receptor sites, as well as details throughout the day that are not just the limited peak time (itself not accurate) outlined in the consultation material.

8.13.3. These figures must also be presented in a clear composite set of plans through the phased delivery of Heathrow expansion that combines all the expected traffic in the area.

8.13.4. That way it will be clearer to determine how 13,000 extra car parking spaces, two of the largest car parks in Europe, lorry parks, coach parks, freight increases and the movement of nearly 50million extra passengers a year will result in no extra road borne vehicular traffic.

8.14. Passenger Uplift

8.14.1. It is unclear as to what % factor has been applied to background traffic growth

and how traffic levels have been numerically reassigned for future years throughout the affected road network. Also, the modelled peak traffic period analysis for the PM peak only covers a one hour period - 5pm to 6pm whilst conversely the AM input analyses a two hour period (7am to 9am). This must be rectified as peak traffic activity is now generally extended to at least a two hour window during both the morning and evening peaks.

8.14.2. Otherwise, any emerging modelling data will be further skewed compounding the general in-built inaccuracies of the modelling process. Details of the timeline associated with the delivery of the increase in passenger parking provisions is also absent with the projected rise to 49,700 spaces at year 2040 but without full indication of parking supply milestones prior to that year.

8.14.3. From the findings as presented, it is broadly indicated that there would be marginal change with up to a fluctuation within 5% over the current baseline flows in traffic imposition to the analysis year of 2040. This conclusion suggests limited or minimal impacts and therefore an acceptable change which would reinforce the ANPS policy statement which suggests that traffic conditions will remain relatively stable with expansion.

8.14.4. It should be noted that this 5% rule originates from the Chartered Institution of Highways and Transportation (CIHT) (formally IHT) traffic assessment guidelines (circa 1994) trip generation thresholds which were traditionally recognised as appropriate guidance which would allow for an informed decision to be made on whether development impacts could be absorbed within existing highway networks, with or without highway interventions. Threshold triggers of 5 and 10% development traffic uplift were established for congested and other roads respectively before acceptability of projected impacts (or otherwise) would be determined. This once ubiquitous method of approach is now no longer deemed an acceptable mechanism since it creates an incentive in favour of locating development where high levels of background traffic already exist as is the case with the airport expansion. It is therefore not considered as a wholly appropriate yardstick for gauging the suitability of major development proposals.

8.14.5. It is also important to note that percentage trip assignment assumptions (based on the total predicted traffic generation) which are required for traffic modelling purposes are considered more so as predictions rather than 100% accurate representations of actual generated trip movements post expansion. This 'built-in inaccuracy' is notably due to the difficulty in predicting traffic assignment and distribution which depends on a driver's premeditated decision to drive in the first instance and many other extraneous factors such as congestion, drivers

tolerance to delays/congestion, inclement/adverse weather conditions, sustainable modal shift, origin and destination of trips i.e. linked trips etc.

8.14.6. The DCO Project Process needs to consider the effects of the development and not get distracted by observations about magnitudes of change. Each receptor needs to be treated on its merits, for example, a 50% increase in traffic on a rural roundabout may be considered acceptable if it remains well within capacity; conversely a fractional increase on a heavily congested road in West London with significant air quality problems is likely to be far from acceptable.

8.14.7. Finally, the parameters used in modelling will also change dynamically from day to day which further disfavours accurate trip generation predictions. HAL broadly acknowledge this level of inaccuracy and the limitations of the applied modelling and should therefore rethink and rerun their current analytical position in order to provide alternative comparative traffic reassignment scenarios which are absent to date and which would assist in allowing an informed decision to be made by the Council.

8.15. Surface Access Infrastructure (Main Highway Changes)

8.15.1. In order to accommodate the extended footprint of the 3rd runway expansion, a number of main highways will require relocation and/or significant realignment as described within the submitted PTIR Vol.2. Roads affected include the A4 (Bath Road), A3044 (Stanwell Moor Road), Stanwell Moor Junction/(A3113) Airport Way, the Southern/Western Perimeter Road and the Strategic Road Network (SRN) M4/M3/M25 road network.

8.15.2. The new Northern Parkway parking facility is to be located to the north of the airport curtilage adjacent to the M4 and M4 spur which renders this provision as a remote facility. This would therefore entail the provision of an element of new roadway connectivity to the site envelope.

8.15.3. Some of the affected highways will require the acquisition and construction over surrounding land resulting in a significant loss of Green Belt (or land parcels with some intrinsic amenity value that this Authority does not wish to relinquish). Clearly, such loss of Green Belt is contrary to Local Plan Part 1 Policy EM2 (Green Belt, Metropolitan Open Land and Green Chains).

8.15.4. To date, there has been no clear justification as to why the routes selected have been chosen particularly when factoring in environmental impacts which are not yet known because the evidence has not been collected.

M25 (SRN)

8.15.5. It is proposed to realign and lower the M25 segment between junctions 14,14a and 15 incorporating a tunnel provision which would result in the runway effectively crossing the M25. It is anticipated that final designs would cater for such general capacity enhancement resulting in the likelihood of improved traffic flows and connectivity with the surrounding network. There is no objection in principle to that proposed subject to the evidence supporting the conclusions.

M4 junction 4 and M4 Spur (SRN) & Northern Parkway (adjacent to the M4 and M4 spur)

8.15.6. An additional arm is proposed on junction 4, which will afford access to the newly provided Northern Parkway passenger and staff parking area. Realigned off-slips are proposed to improve road capacity.

8.15.7. The full efficacy of this change needs to be modelled and presented accurately. It is important to reiterate that the role of the highways authorities is not solely to satisfy the demands of Heathrow Airport, although that is the primary aim of HAL. Consequently, any interventions such as this type of junction change needs to be properly evidenced with clear information provided on the numbers of vehicles moving on to and off the roundabout.

M4 Smart Motorway

8.15.8. The M4 Smart Motorway was approved following a DCO submission several years ago. The works are yet to take place. In the first instance, there is a significant concern that the interventions on the M4 will coincide with interventions on the M25 for expansion, thereby compounding the likely level of harm. This needs further consideration and HAL must work with Highways England to present a clear composite programme of all the works in the area. This must then be reflected positively in the EIA cumulative assessment.

8.15.9. Regardless of the above, the M4 SMART Motorway did not consider expansion but did show increased levels of traffic in the local area. It also identified that additional traffic on the A312 Parkway would reassign due to the volume of traffic. This reassignment would be on to roads that do not have spare capacity. This was before expansion was considered.

8.15.10. Assuming that expansion does not generate any further traffic (a position that remains lacking credibility given the absence of supporting information) then it

will obviously alter the patterns and behaviour of traffic movements. The M4 SMART Motorway includes all lane running but no further interventions, for example, it will remain two lanes over the Chiswick Flyover. This means all lane running of 4 lanes will merge into 2 at this point. This, and the resulting congestion and impact on journey times, has never been adequately addressed.

8.15.11. The surface access plans for Expansion need to address this point carefully and robustly. The issue for the Council is that any problems on the M4 or M25 result in reassignment through the local road network. There must be an honest and credible response to this issue.

A4 (Bath Road/Colnbrook by-pass)

8.15.12. It is proposed to move the A4 northwards toward and parallel to the M4 in order to cater for the enlarged footprint of the 3rd runway. This would entail the provision of a number of new and enlarged existing roundabouts along this east-west route with the potential for 2 lane dual carriageways in each direction.

8.15.13. The problem with this proposal is one of realism. The current A4, Bath Road, is home to heavy industry, hotels, commercial, residential and many other supporting uses of the airport. Elsewhere, this report identifies that the DCO plans will only re-provide a fraction of what it lost. Consequently, the new A4, shown as some form of country lane running to what is left of Harmondsworth, surrounded by green and open countryside is far from realistic.

8.15.14. Far more credible work is required with a greater degree of honesty about the assumptions of what this road will do in the future, who it will serve and how it realistic it is to believe it changes from one of the busiest connections in the south of the Borough to become a charming country road.

A3044 Stanwell Moor Road

8.15.15. The 3rd runway would sever the A3044 between Colnbrook Bypass and Stanwell Moor Junction. As a consequence, a replacement route to the west and running in parallel with the M25 would be provided.

8.15.16. Once again, capacity enhancement is promised to be incorporated with bus and cycle priority provisions. Further evidence needs to be provided as to whether this is realistically achievable and whether this is a solution for HAL or for everyone.

Stanwell Moor Junction with the A3113 -Airport Way

8.15.17. It is proposed to replace the junction arrangement (A3113 - Airport Way/Southern Perimeter Road) with a 'grade separated' multi-level roundabout junction providing a continuous east/west through route. The design would also allow for connectivity with the existing Western campus parking area.

8.15.18. Further evidence needs to be provided as to whether this is realistically achievable.

Southern Perimeter Road

8.15.19. The road is proposed to be widened from 2 to 3 lanes in each direction to benefit capacity which will link directly to the upgraded Stanwell Moor Road junction with improved linkage to the new 'Southern Parkway' parking facilities. Other related traffic management remedies include replacing signals at the Seaford and Stirling Road junctions with roundabouts.

8.15.20. The outline principle of this proposal is not discounted at this stage although it is questioned as to why this road needs to be widened given the claim there will be no further traffic in the area.

8.16. Displaced residents and uses

8.16.1. The proposals will require a large number of people to move although some of the facilities they use remain in situ. This will alter the changing traffic patterns which are required to be assessed.

8.16.2. Similarly, the loss of schools south of the M4 will alter transport patterns and equally needs to be assessed with mitigation proposed as necessary.

8.16.3. The need for more housing to service the airport requires assessing as this is likely to take place in areas already congested.

8.16.4. The change to open space availability will most likely result in people needing to travel further to reach recreational opportunities. This needs to be assessed.

8.16.5. The project will also result in changes to travel patterns related to other community services and facilities e.g. library and GP services. These need to be mapped and traffic impacts assessed.

8.16.6. Heathrow expansion will fundamentally alter the dynamic across multiple communities on a highly sensitive road network. HAL needs to understand that

the surface access strategy is not just about getting people to the airport, it is about ensuring that existing communities stay viable and connected.

8.16.7. The information presented in this consultation is a long way short of demonstrating this objective.

8.17. Conclusion

8.17.1. HAL has developed their own transport model to determine the surface access impacts; in doing so they have shunned the normal approaches to new development. This position provides a great deal of uncertainty about the validity of the model and whether it is accurate and appropriate.

8.17.2. To compound matters, HAL has not shared the model or the raw data it uses. The decision not to disclose this work raises significant concerns that HAL is not willing to share the true impacts of the scheme at this stage.

8.17.3. Consequently, the Council, as the highways authority who would have to then manage much of the network serving the expanded airport, is in the dark as to effects of this project. That is entirely unacceptable at this stage.

8.17.4. The Council must be satisfied that the surface access strategy is developed not solely to service airport expansion and HAL. The network is currently heavily congested with significant problems on all routes around the airport; the problems are felt far beyond users of the airport.

8.17.5. As presented, it is not clear whether the surface access strategy works for the airport, and it certainly will not for the thousands of residents, commuters and businesses who are not reliant on or users of the airport.

8.17.6. HAL does not appear to have made progress on this extremely important issue. It should also be noted that if the traffic assessment is wrong, then so is the air quality assessment. There is a considerable amount of work to be done and this should not be completed behind closed doors with all information presented at the last minute. The Council urges HAL to release the information to demonstrate that progress is being made.

9. Air Quality

9.1. Background

9.1.1. The PEIR air quality chapter describes the methodology and the preliminary results for the air quality impacts of the DCO Project. The air quality assessment has used two models, one a detailed dispersion model to assess against the air quality objectives, the other by use of the DEFRA PCM model outputs to assess EU compliance.

9.1.2. The project is located almost entirely within Hillingdon and the PEIR clearly demonstrates that the impacts from the DCO project, both in the construction and operational phases, will worsen air pollution for a substantial number of people over prolonged periods of time. These impacts are within a declared Air Quality Management Area and within the GLA Zone which is currently non-compliant in relation to EU limit values.

9.1.3. It must also be recognised that the EU limit values are just one measurement of air quality levels. The Council is predominantly concerned with the health effects of poor air quality. These do not start and end at the EU limit value. There must be a concerted effort to secure improvements in air quality, and maintain these improvements.

9.1.4. Furthermore, any forecasted improvements without the project must be credible, realistic and based on the precautionary approach.

9.1.5. If there are predicted improvements over the baseline position and beneath the EU Limit Value, then this should not be seen as 'headroom' or 'capacity' for further pollution from the project.

9.1.6. At this stage though, the comments on the approach to air quality and the initial findings must be set in the context of HAL not disclosing the traffic modelling or providing sufficient surface access information. This means the air quality outputs being presented, and the conclusions being reached, are based on unverified and unsubstantiated information.

9.2. Detailed Comments

Approach to uncertainty

9.2.1. The PEIR highlights that there are a number of components that contribute to

the uncertainty of modelling predictions. It does not, however, explain how this uncertainty has been applied to assessment. The paragraphs below explain why this is an inadequate approach and why there is a requirement for the provision of further information to enable the formation of a robust consultation response.

9.2.2. The PEIR identifies that the air quality impact of predicted road traffic is derived from assumptions in the improvements to the emission performance of the vehicle fleet. The air quality assessment is predicated on the assumption that these predicted improvements to road traffic emissions will occur in reality, despite also noting that there is an inherent uncertainty in predicting future concentrations.

9.2.3. Along with potential errors associated with the emissions inventory inputs into the air quality assessment such as the future road vehicle fleet and the future aircraft fleet, air quality models themselves are subject to uncertainty errors as is the traffic model which supplies a lot of the key input data. In addition, the air quality monitoring data which is used to verify the modelling is also subject to uncertainty (for example +/- 15% for continuous data and +/-25% for passive data).

9.2.4. Examples of the reporting of uncertainty in air quality models include:

- the 2017 WSP Re-Analysis report for DfT, which accompanied the ANPS, which reported an error of +/-29% on the PCM model;
- the Airports Commission local air quality assessment (May 2015) which used the ADMS-Airport dispersion model which defined a receptor at risk if the concentration was 32ug/m3 nitrogen dioxide annual mean or above due to model results uncertainties.

9.2.5. The air quality assessment is informed by outputs from the HAL; there is no explanation as to why traffic models such as those held by the traffic authorities such as TfL and DfT were not used**.** There is inherent scepticism when a developer shuns standard practice and modelling of the relevant highways authority in favour of developing their own. An independent peer review of the verification and validity of the HESAM and LASAM traffic models with their assumptions and modelling errors is requested and should be supplied for public scrutiny prior to the submission of the final DCO application.

9.2.6. The Heathrow traffic model uncertainties need to be identified and accounted for. This has particular importance for air quality as any errors or uncertainties in the traffic model will significantly impact on the outputs from the air quality

assessment. The two are intrinsically linked. For air quality it is not simply the calculation of traffic volumes and road vehicle types, but it is also the ability to assess congestion especially at pinch-points such as junctions and where roads are already at or over capacity, plus the assumptions made on the distribution patterns around the road network. The ability of the traffic model to accurately demonstrate these issues should be made available for public scrutiny prior to the submission of the final DCO application.

9.2.7. The PEIR air quality assessment, in regard to the air quality objective assessment, relies upon the use of the ADMS dispersion model while the EU compliance assessment test has relied upon the outputs from the DEFRA PCM model. These are two different types of models with different spatial resolutions, assumptions, input and uncertainties. The uncertainty errors must be identified and it must be demonstrated how they have been accounted for in the presentation of the air quality results. Without this, informed and robust conclusions on the assessment outputs cannot be drawn with any confidence. Once again, this information needs to be provided for public scrutiny prior to the submission of the final DCO application.

9.2.8. The PEIR describes the implementation of a series of embedded environmental measures which include the Surface Access Proposals and other on-site mitigation. There is no quantification of the reductions achieved via the implementation of these measures, no assessment of their efficacy in terms of full and effective implementation. Without quantification of the proposed mitigation measures, no informed conclusion can be made as to their efficacy and this then adds another level of complexity to the uncertainty of the results as presented in the air quality assessment. Examples are given below:

No more road traffic pledge

9.2.9. The documentation states that the traffic modelling has shown that the airport can be expanded without increasing the airport-related traffic on the roads from today's levels and that this is in line with the airport's definition of the 'No More Traffic' pledge. Yet the airport is predicting to increase the provision of passenger car parking numbers and increase freight by 50%. The decrease in overall traffic numbers is anticipated to be gained from decreasing the staff parking allocation and hence the traffic on the roads associated with staff access.

9.2.10. The staffing levels at the airport are drawn mainly from areas in closer proximity to the airport than the areas potentially travelled by passengers. No assessment

has been provided to demonstrate that the reduction in staff journeys on the allocated roads on which they travel is of greater benefit in terms of air quality than the increased passenger and freight journeys across the wider road network on which they will travel. For air quality it is where the journeys occur, along with the vehicle types, that is the essential issue especially if these occur in areas close to communities and also where pollution levels are already harmful.

9.2.11. Achieving the no more road traffic pledge, as interpreted by the PEIR, has not been demonstrated to be an effective measure to meet air quality limits. Further evidence is required to justify this measure in terms of achieving air quality improvements**.**

Parking strategy

9.2.12. Passenger car parking will be increased and consolidated into two major car parks, the Northern Parkway (24,000 spaces, anticipated construction 2030-2035) and Southern Parkway (22,000 spaces, anticipated construction 2026-2030). There will be an additional 6,500 places in a new multi storey car park near Terminal 4 plus a long stay area east of the southern runway and two coach parking areas, one of which is landside to the east of the northern runway.

9.2.13. In terms of traffic congestion and the knock on impacts for air quality, this concentrates traffic in two of the areas close to the airport already impacted heavily by congested traffic, for example the M4/M25, and the A30. There must be clear presentation of evidence that the traffic model is capable of adequately assessing the impact on congestion, and hence pollution, as increases in traffic volumes become concentrated at key access points to the car parks along with any resulting traffic reassignment which may impact other areas.

Heathrow ULEZ (HULEZ)

9.2.14. This is stated to be introduced in 2022 and will implement a charge for all passenger traffic, including private hire vehicles, accessing the airport. It will not apply to those who live locally or those travelling around the airport but not using airport facilities and it will also not apply to staff or freight. It will cease on the opening of the new runway in 2026.

9.2.15. There is no impact assessment of the emissions savings this four year measure is intended to bring about. Heathrow as a destination is not central London. Passengers visit on a less regular basis and therefore a significant error in its delivery of air quality benefits must lie in the fact that the majority will simply

pay. This does not reduce emissions on the roads travelled to gain access to the airport. Staff by nature live more locally, travel each day and are therefore the more appropriate catchment to target if the aim is to change behaviour and vehicle choice and achieve a reduction in emissions. The impact of the HULEZ must be quantified.

Heathrow Vehicle Access Charge

9.2.16. On the proposed runway opening in 2026 the HULEZ will be replaced by an access charge. This will not be linked to emissions and it will be a charge to all passengers, taxis and private hire vehicles that enter the airport's car parks and terminal forecourts, regardless of the emissions standards. It will not apply to staff or freight. It has not been demonstrated what this is predicted to achieve, apart from creating a revenue stream, in terms of air quality benefits. This must be quantified**.**

9.2.17. The Council also proposes that any funds received are ring fenced to improve air quality and not simply used to pay for the project.

Bus and coach priority

9.2.18. The operation of bus/coach priority lanes can contribute to traffic congestion in areas where the roads are already congested. The quantification of this measure must take into account potential increases in pollution caused by congestion on the surrounding road networks. This must be presented.

Vehicle Call-Forward facilities

9.2.19. This measure is aimed at reducing freight congestion in the Cargo Centre. The documentation states around 8,100 cargo related vehicle trips take place each day and unmitigated growth could, by 2040, see this activity increase by an additional 4,600 trips. Whilst this measure may increase efficiency and reduce emissions on-airport itself, it doesn't address the emissions from the 50% anticipated increase in freight vehicle trips associated with the implementation of the project. These vehicles will still travel on the surrounding road networks. Quantification is required of the pollution from the increases in freight on the surrounding road networks. This must be presented.

Conclusion

9.2.20. The PEIR has provided results on air quality without providing the information which allows consultees to make an informed response in terms of the validity

of the predictions. Quantification of mitigation, provision of model input data, including traffic data, their derivations and assumptions for both baseline and future years must be made available for public scrutiny prior to the submission of the final DCO.

9.3. Detailed comments on the air quality assessment

9.3.1. The comments below give an overview of the key areas of concern and identify where further information is required. As stated above, on the basis that the uncertainty errors have not been presented alongside the air quality results, informed robust comments on the assessment outputs cannot be made.

Construction Phase

9.3.2. This is anticipated to start in 2020/2021 and proceed through four phases to be completed in 2050. The Phase 1 stage from 2022- 2026 is identified as when construction, in terms of the impact on local communities, will be at the highest level. The PEIR notes the construction traffic has not yet been incorporated fully into the surface access model and that HAL's own model cannot accommodate the construction traffic from HAL's own project. This is not a ringing endorsement for the model.

9.3.3. This means there will need to be another approach to air quality and construction which remains to be developed.

Construction Study area

9.3.4. The PEIR defines the extent of the study area for the assessment for construction dust effects as:

- 350m of the boundary of the relevant site;
- 50m of a route(s) used by construction vehicles on the public highway or haul routes, up to 500m from site entrance(s).

9.3.5. This is too simplistic an approach for such a complex project. For example, this does not include important aspects such as the potential displaced traffic likely to occur due to the scale of the construction operation over an extended time period. The detailed study area for the construction phase must be defined and be sufficient in size to ensure that it captures the associated road traffic, both construction-related traffic and the potential displaced traffic. This is likely to be substantial with the construction phase, which includes re-alignment of the M25 and re-routing of the A4, located in a heavily congested part of the road

network.

9.3.6. The correct scope of the assessment needs to be informed by the traffic impacts and reassignment assessments. As these have not been disclosed, the Council is unable to assist.

Assessment years

9.3.7. The GLA zone is anticipated to move from non-compliance to compliance in the years leading up to 2030. Given the sensitivity of the area in terms of air quality compliance and the inherent uncertainty in modelling (both air quality and traffic) and forecasting (both air quality and traffic), the assessment must include an additional number of assessment years within this time frame. The PEIR fails to do this.

Cumulative impacts

9.3.8. The assessment must also include the cumulative impacts of construction traffic and potential displaced traffic from other major works in the same area at the same time. For example, M4 smart motorway, improvements to junction 10 of the M25.

Conclusion

9.3.9. The construction phase has not yet been properly incorporated and assessed. The final assessment must demonstrate how potential displaced traffic plus cumulative displaced traffic from other works has been taken into account. Given the longevity of the construction phase, and the fact that it coincides with the predicted timescales for achieving compliance in the GLA zone, more assessment years must be provided to allow for the ability are needed to be able to assess the impact of construction on the surrounding communities and on the achievement of EU compliance.

9.4. Operational phase - methodology

Assessment against air quality objectives - Core Assessment Area

9.4.1. The PEIR has not demonstrated that the Core Assessment area is sufficient in size. The detailed air quality assessment should include all the areas where Heathrow expansion impinges on the surrounding environment. This is supported by the PINS scoping opinion Table 7.3, point 10 which states that an arbitrary limit, as proposed (11km x 12km) to the assessment area based upon

previous studies, should not be applied, the Proposed Development is more extensive and covers a wider geographical area and that the model extent should be defined by the area over which significant air quality effects may occur.

9.4.2. The PEIR attempts to justify its use of the 11km x 12km core assessment area by reference to previous studies undertaken by Heathrow and by the Airports Commission. The Airports Commission Air Quality study was strategic in nature and used to compare impacts between strategic location options, the PEIR, and the following DCO application. It is supposed to be an assessment of a specific proposed development in a specific location. This scheme has the potential to impact on a substantial population of people and should be subject to a more rigorous approach. The Core Assessment Area must be reviewed and further justification provided for its spatial reach.

9.4.3. The Core Assessment Area has been described as the area that includes the locations where changes in local air quality (due to airfield, aircraft and road traffic emissions) are likely to be the greatest. There is no clarification on what is meant by the terminology "the greatest" and no recognition that an impact may be smaller in magnitude but have at least as great a significance in terms of air quality. Neither is there any provision of source apportionment information to allow for an informed response on this issue. Where there are areas close to, or exceeding pollution, levels small increases can have significant impacts; hence the requirement for a full detailed assessment on all impacted areas. There should also be consideration for impacts near vulnerable receptors or those at a higher risk of impacts from poor air quality. Again, the focus solely on the EU limit value is not appropriate.

9.4.4. Finally, it is noted that appropriate assessment screening identifies air quality impacts on European sites much further than the arbitrary core assessment area.

9.4.5. Ultimately, the assessment area should be based on two factors, 1) the traffic impacts of the scheme and 2) the sensitivity of receptors in relation to the areas of traffic impacts. Setting the assessment area before disclosing the traffic information and without taking into consideration the receptors results is a flawed exercise.

9.4.6. Aircraft emissions are stated as having limited impact on ground-level pollutant concentrations beyond the Airport boundary. No source apportionment information at receptors has been presented which demonstrates this

statement as fact. No evidence has been presented to demonstrate and quantify the "limited impact". Furthermore, the now expired planning application for the enabling works to end the Cranford Agreement result in a substantial damage cost associated solely with emissions from aircraft. It therefore is difficult to reconcile that agreed approach by HAL with the conclusions in this consultation.

9.4.7. According to the ANPS (June 2018), aircraft emissions do impact beyond the airport boundary; a quantification in the draft ANPS February 2017 identified aircraft movements contributed 14.3% (baseline 2013) at nearby roadside locations. The designated ANPS 2018, which had an updated baseline (baseline 2015), identified aircraft movements contributed 17% by the time of the designated ANPS. This demonstrates aircraft movements are an increasing source outside of the airport boundary and cannot be dismissed so lightly.

Assessment against air quality objectives - Outside the Core AQO Assessment Area

9.4.8. The PEIR states that the impacts of where significant effects are likely outside of the Core Assessment Area have been determined by identification of the potential changes in the number of airport-related road traffic movements and their associated dispersion on the road network.

9.4.9. It should be noted that the accurate identification of these impacted areas is wholly dependent upon the accuracy of the Heathrow traffic model and its assumptions in terms of traffic volumes, traffic types and assumed distribution across the road network, both in the baseline and in its future predictions. There is a large degree of uncertainty, as yet un-quantified in the PEIR, as to whether this identification of significant effects is robust.

9.4.10. Under-predictions in the traffic model in regards to volume, traffic type, speed and distribution on the network will result in under-predictions in the outputs from the air quality assessment and therefore a potential failure to identify areas at risk. This is particularly important in the GLA zone which is currently non-compliant in terms of meeting the legislative limits; where there are identified local pollution hotspot areas which require improvements; and, in the area around Heathrow where road networks, strategic and local, are already congested.

Assessment against air quality objectives - Choice of receptors

9.4.11. The PEIR detailed modelling has included 145,452 properties in the Core Assessment Area. As stated above, the scope of the study area has not been

fully justified and therefore the number of receptors cannot be presented with any confidence. The PEIR presents mapped results for nitrogen dioxide, although the community analysis only presents the results for a small number of self-selected receptors in each area. The mapped results have not been provided for PM_{10} or $PM_{2.5}$.

Conclusion on assessment against air quality objectives

9.4.12. The Core Assessment Area is potentially too narrow and needs to be reviewed. Justification for the spatial extent must be better evidenced. Sufficient information needs to be provided to demonstrate that all relevant areas have been captured. Detailed evidence, informed by source apportionment analysis, must be produced to justify the appropriate assessment area. This should include consideration of locations in the area defined as "Outside the Core AQO Assessment Area"; this is particularly important where there are already areas of non-compliance, for example in Central London.

9.4.13. From the information provided in the PEIR, it cannot be agreed that the receptors selected for the detailed analysis are sufficient to identify and assess the likely significant effects of the DCO project; until proven otherwise the number of receptors presented in the PEIR should be seen as a minimum. The presentation of pollution results must also include fully mapped receptor results for PM_{10} and $PM_{2.5}$.

Assessment of compliance with EU limit values

9.4.14. The interpretation of how the development will be considered in terms of its impact on compliance is not supported. The PEIR states that predicted concentrations from the model will be added to the concentration predicted using the DEFRA PCM model at given links to provide a total NO_2 concentration. In terms of assessing compliance it states:

> *"The total NO2 concentration predicted in this way will be compared to the highest concentration predicted in the Greater London agglomeration for that assessment year, to compare the impact of development on compliance. This is consistent with the approach detailed in IAN 175/13 (Highways Agency)". Para 7.7.39, Chapter 7, PEIR."*

9.4.15. The Council does not support the interpretation as described above to be correct in regards to judging compliance. It is not appropriate for HAL to consider their scheme would be acceptable in terms of EU Limit Value compliance, providing somewhere else remains higher than the roads they

impact. This is irresponsible and the Council considers this to be unlawful.

9.5. Identification of significance effects

9.5.1. The impact descriptors in Table 7.16 of the PEIR allow for a judgement to be made in terms of increases in concentration; this includes where the receptor concentration is close to/at/or above the air quality assessment level. The Council is clear that an increase in concentration in such circumstances is potentially unlawful; as such, this should always be regarded as a substantial impact in this terminology. The detrimental health impacts of air pollution are severe and it is noted that the PEIR in table 7.16 uses the definition of negligible as less than 0.5% of air quality assessment level i.e. less than 0.2ug/m3.

9.5.2. The PEIR states that the determination of overall significance of the effect has been determined using professional judgement. It is stated as being based upon consideration of the number of receptors predicted to experience a worsening or improvement in air quality and the predicted concentrations relative to the air quality objectives. The assessment of significance has been made upon:

- The risk that environmental standards will be breached;
- The probability of the effect occurring;
- Whether there will be a large change in environmental conditions;
- The duration of the effect;
- The number of people affected;
- The potential for avoiding or reducing or compensation for the effect.

9.5.3. In regards to the significance of the magnitude of change, Table 7.17 has been informed by the IAN/174/13 Highways England guidance for the strategic road network (SRN). This guidance defines negligible as less than 0.4ug/m3. This conflicts with Table 7.16 where negligible is defined as less than 0.2ug/m3. Given the severity of the detrimental health impacts which arise from increasing levels of air pollution, the use of the higher value of 0.4ug/m3 is not supported.

9.5.4. In addition, not all the air quality increases arising from the implementation of the DCO project will be on the strategic road network; there are a significant number of specific pollution hot spots within the surrounding areas on the more local road networks. Further justification is required as to why the choice of the use of IAN/174/13 is deemed suitable for this specific DCO project where the impacts are not just those arising from the use of the SRN. Without further

evidence, the use of this guidance is not supported.

Conclusion on significance of effects

9.5.5. As the uncertainties described above have not been demonstrated as being taken properly into account, the risk and probability of the impacts cannot be regarded as robust. Similarly, as the definition of the core assessment area, and hence the identification of numbers of receptors, has not been demonstrated as being robust, the number of people affected must be regarded as a potential minimum.

9.5.6. The PEIR focuses on achieving compliance as the main significant effect in regard to assessing the impacts of the DCO proposal. This is a serious omission. The PEIR Health chapter clearly acknowledges the absence of a recognised threshold for effects of the key pollutants as studied in this air quality assessment; thus even small changes in exposure can give rise to effects at the population level (para 12.10.487).

9.5.7. The WHO guidelines for particulate matter are significantly lower than the current air quality objectives with PM10 annual mean of 20ug/m3 (as opposed to 40) and PM2.5 10ug/m3 (as opposed to 25). The importance of achieving the WHO guidelines is recognised in the GLA London Environment Strategy:

> *"This strategy also recognises the need to go beyond legal limits, as these reflect political and economic considerations as well as health impacts. These should therefore be treated as a starting rather than an end point. WHO guidelines, meanwhile, are driven solely by the available health evidence and as a result are set much tighter for PM10 and PM2.5. Achieving these more ambitious targets would provide many extra health benefits for Londoners. This strategy sets out the timescale, and the changes needed, to achieve these tighter targets". Page 42*

9.5.8. There needs to be clear recognition in the DCO project that tighter standards are being sought by the Mayor of London and therefore the DCO project impacts on levels PM_{10} and $PM_{2.5}$ must be factored into the assessment of significance.

9.5.9. In addition, there needs to be acknowledgement of the recent studies in regard to ultra fine particles and aviation. New evidence is emerging of the danger these particles present to human health as they are such a size and shape to be able to penetrate deep into the lungs and blood stream. Recent studies undertaken at Los Angeles Airport and Amsterdam, have shown high concentrations of fine particulate matter under the approach flight path.

9.5.10. No data has been presented to quantify the concentrations of Ultra fine particles along the current Heathrow approach paths. This is unacceptable given the size of the proposed expansion project and the numbers of people who are potentially at risk. This must be done for the DCO application.

9.5.11. The impact on health and consideration of the erosion in health benefits accruing from the implementation of the proposal must be explicitly considered in terms of assessing significance of the DCO Project. This should be included specifically in the assessment of significance.

9.6. Future predictions

Local air quality objective assessment - Core Assessment Area

9.6.1. Assessments have been presented for 2017 baseline, 2022, 2027, 2030 and 2035, both with and without the DCO Project. Contours of modelled predictions of NO_2 with the DCO Project have been provided but there is no provision of contours for PM_{10} or $PM_{2.5}$. This information should be provided.

9.6.2. The impacts of cleaner vehicles, use of 2030 background maps and emissions factors for 2035 and emissions per aircraft decreasing are all suggested as reasons why, despite the impact of the DCO proposal in terms of increased emissions, the pollution levels will all decrease.

9.6.3. As stated above, there is a recognised inherent uncertainty in predicting future concentrations; however, no such uncertainty has been applied to the results. In the absence of a precautionary approach which takes into account uncertainty of the models and the model inputs, there is no confidence that the results, as presented, will occur in reality.

9.6.4. Table 7.44 in the PEIR presents the methodology and outputs for assessing significance (shown below). Without the provision of the modelled data at each receptor, the outputs above cannot be accepted. For example, the PEIR chosen criteria (Table 7.16) of slight and moderate are used to describe increases where the air quality objective value is already exceeded. In such conditions, the Council would describe these impacts as substantial, adverse and potentially unlawful. Increasing pollution to areas already suffering consequences is wholly inadequate and demonstrates, as elsewhere in this assessment, a distinct lack of understanding of the impacted areas. Instead, a superficial and unscientific approach to assessing purely by numbers has been developed.

Impact descriptor	2022	2027	2030	2035
Substantial adverse	1	0	0	0
Moderate adverse	106	14	27	70
Slight adverse	315	327	378	371
Negligible	145,030	145,105	145,047	145,011
Slight beneficial	0	6	0	0
Moderate beneficial	0	0	0	0
Substantial beneficial	0	0	0	0

9.6.5. As discussed previously, until there is appropriate demonstration that the Core Assessment Area is robust in terms of capturing all the significant effects, the numbers above should be regarded as the minimum numbers impacted. What is notable is that only 6 receptors out of 145,452 identified receive any beneficial benefit, as described in the applied significance criteria. The magnitude of the impacts is described in Table 7.45; this is summarised below.

Magnitude of change NO_2 ug/m^3 annual mean	**2022**	**2027**	**2030**	**2035**
>4	0	29	51	93
2-4	3	404	512	759
0.4-2	1701	11033	18157	43330
0 - 0.4	135638	132264	126318	100847
-0.4-0	0	1552	376	367
-2.0--0.4	0	170	38	56
-4.0 - -2.0	0	0	0	0
<-4.0	0	0	0	0

9.6.6. The results clearly demonstrate how the DCO project impacts at receptors over the time period from 2022 to 2035. No results are presented past 2035 despite

the continued growth of the airport to final capacity in 2050. This should be rectified.

9.6.7. As stated above, the use of 0.4ug/m3 as a criteria for the magnitude of change is not supported and the Table should include the reporting of the lower limit of less than 0.2ug/m3. What is notable is that more people are subject to increases in pollution than receive decreases; the magnitude of change increases through the assessment years provided in the assessment.

9.6.8. Furthermore, there needs to be a correlation with the health impact assessment before any conclusions are reached on air quality impacts. A 0.4ug/m3 increase to people in areas where there are already known problems of health, or likely to have increased risk of health problems associated with current or historic poor air quality levels, is not in any way a negligible impact.

Community area results

9.6.9. The impacts on eighteen community areas are reported specifically. In each case, the PEIR has self selected a number of receptors which are described as worse case in terms of likely air quality impacts and total concentrations. A sensitivity test has been applied using the CURED sensitivity test although it is unclear as to the status of this test. Clarification is sought as to whether this is a DEFRA approved methodology in regards to assessing the uncertainties of future vehicle emissions.

9.6.10. Six of the community areas, which include a total of 140 self selected receptors, are identified as within Hillingdon. Of the 140 impacted receptors, only 2 are identified as having a slight beneficial decrease in nitrogen dioxide levels, the remaining 138 are all identified as being subject to increases in nitrogen dioxide. In regards to particulate matter, there are no reported beneficial decreases in levels.

9.6.11. Across the remaining 12 community areas, no beneficial decreases in pollution are reported in any year.

Evaluation of significance for local air quality objective assessment - Core Assessment Area

9.6.12. The PEIR uses IAN 174/13 (Highways Agency) guidance to evaluate the significant local air quality effects from the assessments. It concludes the scheme is to be judged as not significant. This is not supported. See Table 7.47 below, reproduced from the PEIR and annotated with the Council's concerns.

Key criteria	Yes/no	Justification	Council comment
Is there a risk that environmental standards will be breached	Yes	Some AQO exceedences are predicted in 2022 but not in any of the years 2027, 2030, 2035	Support yes but not the justification. The identification of exceedences in 2022 only is not supported, the errors in the modelling processes have not been accounted for, therefore the conclusion on risk cannot be stated with any degree of confidence The selection of the future assessment years are insufficient to determine the risk of impacting on compliance of the GLA zone;
Will there be a large change in environmental conditions	No	Only small changes are predicted at locations where exceedences of the annual mean NO_2 AQO are predicted	Not supported. A small change where exceedences of the annual mean are predicted is unlawful and is should therefore be identified as a substantial change in environmental conditions; Significance in terms of air quality is not just about achieving compliance, there are large changes in magnitude predicted which have significant detrimental impacts in regard to health across substantial numbers of people, these represent large changes in environmental conditions at these receptors
Will the effect continue for a long time	No	The DCO project is predicted to cause a small change at 33 receptors where the AQO is exceeded already, or a new exceedence is created in 2022. No exceedences	Not supported. The approach to compliance is unlawful as it worsens exceedences and causes a new exceedence; The errors and uncertainty in the modelling results have not been accounted for therefore the conclusion cannot be stated with any degree of

		are predicted in all other years assessed.	confidence; In terms of health impacts the community areas analysis demonstrates increasing numbers of receptors are predicted to be subject to increasing levels of pollution over a long time frame, 2022 to 2035, there is no assessment for post 2035 despite the maximum throughput of the expanded airport not anticipated until 2050;
Will many people be affected	No	Only 33 out of 145,452 although not all on the SRN (14 on the SRN and 19 along the A4 in Slough and A437 in Dawley Road Hayes	Not supported This has judged significance wholly on compliance as assessed by a model for which the uncertainty has not been accounted for to allow for confidence in the results; The results support the concern that the use of the IAN 174/13 is inappropriate with more exceedences occurring outside the SRN; The number of people impacted at 0.2ug/m3 has not been presented therefore is under-estimating the impact; Without further justification in regards to the extent of the Core Assessment Area, the figures as presented should be regarded as minimum figures; The impacts on people experiencing adverse increases in pollution increases substantially in number from 2022 to 2035;
Will it be difficult to avoid, or reduce or repair or compensate for the effect	No	It is anticipated that the construction phase will be addressed via construction plans	This is not supported. The evidence provided demonstrates it is not just the construction phase in 2022 where impacts occur, for example 2022 - 2025 also coincides with the

		proposed early growth; The impacts on people experiencing adverse increases in pollution increase from 2022 to 2035, there is no assessment provided for the late years as the airport reaches capacity; There is no quantification of the mitigation measures in either the construction or operational years to allow any informed judgment as to whether they are effective in terms of avoiding, reducing, repairing or compensating for the effect of increased pollution.
On balance is the overall effect significant	No	Conclusion not supported. In terms of assessing significance the lack of a precautionary approach throughout the methodology means there can be little confidence in the assumption the impacts are not significant; In terms of health impacts the significance is substantial with reported increases in pollution levels across the selected 18 communities throughout the assessment years from 2022 to 2035.

9.6.13. The assessment of significance above has failed to recognise that increasing pollution in areas already in exceedence is considered unlawful; it has failed to address the significance of the requirement to improve air quality and hence contribute to improvements in public health. The implementation of the DCO project simply causes negative impacts on the health and quality of life imposed upon the eighteen communities in closest proximity to the expanded airport by increased levels of pollution. A judgement that the assessment is not significant cannot be supported.

9.6.14. Without further justification in regards to the extent of the Core Assessment Area, the figures and identification of impacted community areas as presented

should be regarded as unsubstantiated and not properly evidenced.

9.6.15. Furthermore, without any reference to health impacts at receptors, the already flawed assessment becomes effectively irrelevant at this stage in terms of assessing significance.

Outside of the Core AQO Assessment Area

9.6.16. The PEIR reports only one area outside of the Core AQO Assessment Area as requiring detailed assessment. The area is identified as the A308 and A332 corridor through Old Windsor and Windsor. Detailed assessment using dispersion modelling is stated to demonstrate no exceedences of the air quality objective levels for the selected pollutants, and increases in magnitude are described as negligible.

9.6.17. As previously stated in the absence of a precautionary approach, which takes into account uncertainty of the models and the model inputs, there is no confidence that the results, as presented, will occur in reality. Therefore, in the absence of further information of uncertainty, the conclusion that the impacts are negligible cannot be supported.

9.7. EU compliance assessment

Core Assessment Area

9.7.1. In 2022, the DCO Project is stated to lead to increases in concentrations on identified DEFRA PCM links where the predicted concentrations are above 40ug/m3 and the implementation of the DCO project worsens the exceedence. There is an additional link where the DCO Project causes a link to move from non-exceedence to exceedence. The Council regards this as unlawful.

9.7.2. No uncertainty has been accounted for in terms of the DEFRA PCM model, or the outputs of the air quality model which has assessed the magnitude of the increases of NO_2 from the DCO project. As such, only limited weight can be given to the absolute values as presented.

9.7.3. For example, on the A312 Hayes Bypass a prediction for the PCM link has been identified as 39.3ug/m3 in 2024. The DCO project increase has been determined as an increase of 0.5ug/m3 and therefore the assessment concludes that 39.8ug/m3 in 2024 is compliant i.e. is below 40ug/m3. To state this level of accuracy as a fact without accounting for the error and uncertainty from inputs from two separate modelling processes (PCM model and detailed dispersion

model for the increase) indicates a lack of appropriate professional judgement in its reporting.

9.7.4. The assessment concludes that by 2027, all PCM links, even with the addition of the DCO proposal, will have concentrations below 40ug/m3. There is no assessment in 2023, 2024, 2025, and 2026 to demonstrate when the assumed decreases occur in order to assess the risk of impacting on compliance. In addition, given the concerns already raised in regard to the lack of a precautionary approach in essential inputs into the modelling process, this conclusion in the PEIR cannot be supported with any confidence.

Outside the Core Assessment Area

9.7.5. The assessment has concentrated on the key corridors between Heathrow and Central London where the PCM links are predicted to have the highest concentrations.

9.7.6. In terms of the A4, the identified PCM link in Hammersmith is predicted to be above 40ug/3 in 2028. The DCO project is predicted to increase total traffic flows in 2022, then decrease in 2027, 2030 and 2035; however, the HDV component is predicted to increase in the years 2027, 2030 and 2035.

9.7.7. There is no explanation as to why this key area, given it is non-compliant in 2028, has not been subjected to a detailed assessment. To assess this in terms of the PCM model, which is used to assess links which are free flowing in terms of speed, along a 100m stretch and not within 25m of a junction is wholly inadequate. It has taken no account of the impact on potential receptors.

9.7.8. The inadequacy of the area covered by the Heathrow Traffic Model is exposed in this analysis. Central London, where non compliance is recognised as an issue, does not appear to be included within the full modelled area of the traffic model. If the DCO Project impacts on compliance in these key areas are considered solely on the effectiveness of the Surface Access proposals in reducing traffic, then this is an unsatisfactory approach.

9.8. Conclusion

9.8.1. In the absence of any account taken of uncertainty throughout the modelling process the results, as they are presented, cannot be accepted as demonstrating accurate predictions. The study areas for both the air quality assessment and the traffic model have not been demonstrated to be sufficient in terms of capturing the likely significant effects. The mitigation measures are un-quantified in terms

of their potential benefits on air quality; therefore, robust conclusions cannot be made in terms of their effectiveness.

9.8.2. The PEIR has not demonstrated compliance with air quality limits and is, in the Council's opinion, therefore unlawful. The assessments, as presented, have failed to give weight in terms of properly identifying the significance of the increases in pollution across substantial numbers of people. The PEIR has not demonstrated an improvement in air quality as planning policy dictates it should and the implementation of the DCO Project will have eroded the health benefits that, in its absence, could have accrued to a substantial number of people.

10. Noise

10.1. Background

10.1.1. The current operation of Heathrow Airport imposes unacceptable levels of aircraft noise over substantial parts of London and the surrounding home communities. There is ever increasing evidence of serious health impacts arising from exposure to aircraft noise.

10.1.2. The severity of the impacts is influenced by several factors including the frequency of events, the duration of time exposed and different sensitivities at times of the day e.g. sleep disturbance. Also other impacts, such as interference with children's' cognitive learning abilities, interference with the ability to enjoy outdoor space add up to all the detrimental consequences of a major airport operating in close proximity to such large populations of people.

10.1.3. There are currently conditions imposed upon the operation of the airport to control the noise by means of a cap on ATMs and other operational measures such as the alternation of runways and a restriction on the number of flights in the night time period with a self imposed curfew on flights landing before 4.30am.

10.1.4. The DCO proposal requires the cap on ATMs to be abandoned and the current alternation of the two runways, which provides 8 hours of absence of flights for communities, to be severely cut in terms of duration of time with no flights. The introduction of a third runway will newly expose substantial numbers of people to aircraft noise for the first time.

10.1.5. Recognising the severe health impacts from night noise, the Airports Commission recommended an increase in the curfew time on landing until 6am; communities consulted on an appropriate time period have overwhelmingly requested 7am, the DCO project has ignored these and has only presented an option which refers to 5.30am.

10.2. Impact of Heathrow expansion

No Flight Paths

10.2.1. The failure to synchronise the DCO process so that it is informed by the Airspace Change Process (ACP) has led to the production of a fairly meaningless

assessment of the likely impacts of noise from the DCO project. With no detailed flight paths there can be no certainty on the impacts of noise in regards to who will be impacted, how noisy the impacts will be, the frequency of the overflights and the duration of the daily exposure.

10.2.2. In the absence of detailed flight paths, the majority of the noise mitigation measures proposed amount to nothing more than ideas. Without detailed flight paths, there can be no informed or quantifiable understanding of the actual impact inflicted. Without these, robust conclusions cannot be drawn in regard to the effectiveness of any of the mitigation measures. It is unjustifiable to go through the DCO process in an attempt to grant it in the absence of such critical information.

10.2.3. The DCO process should be halted until the full implications of the modernisation of airspace and the ACP process for an expanded Heathrow are understood and the actual impacts can be properly assessed. The Council will be making this request to the DfT and the CAA.

No interaction with independent noise authority

10.2.4. As the Airport Commission (AC) recognised, there is a distinct lack of trust in the communities in regards to how Heathrow Airport is operated. To alleviate this situation and attempt to rebuild a level of trust, the AC, in its Final Report in 2015, identified the need for a truly independent body in terms of noise, a body to work with the aviation industry and the communities.

> *"The noise authority must be truly independent, with a lead commissioner or panel drawn from outside the aviation industry, and not dependent on the airports or the aviation sector for funding for its administrative and operating costs. It may be appropriate for these costs to be met from the noise levy. The authority should operate in a transparent manner, publishing the details of its operations, and be accountable to the public through Parliament. Para 103, Final Report, Airports Commission.*
>
> *The Commission therefore reaffirms its recommendation that an independent aviation noise authority should be established. The noise authority should be given statutory consultee status and a formal role in monitoring and quality assuring all processes and functions which have an impact on aircraft noise, and in advising central and local Government and the CAA on such issues".*

10.2.5. This independent body, ICCAN, is referred to in the ANPS which states its

function is to provide independent guidance. It is therefore vital that ICCAN must be in the position, and given the time, to be allowed to do so and to ensure that the said guidance can properly inform and influence the DCO process.

10.2.6. The ICCAN process is currently running behind this DCO process. As seen within the PEIR, important decisions on aspects such as metrics, noise envelopes, mitigation and other such issues, are being decided by HAL now. In addition HAL has appointed its own body it refers to as independent, titled the “Noise Expert Review Group” (NERG). Its stated aim is to provide independent assurance of the scientific and policy robustness of the assessment of noise including effects on health and quality of life. It is to advise on current best practice throughout the consultation and application process.

10.2.7. For the avoidance of doubt the Council does not recognise this body, the NERG, and certainly does not accept it as independent. This is also so in terms of the "Environmentally Managed Growth" document which includes the proposal for an Independent Scrutiny Panel with suggested membership and role for “holding Heathrow to account”. Such groupings must be formulated and overseen by an independent body. If ICCAN has been established to provide the independent advice, then it must be given the authority and the time to do so.

10.2.8. Until a fully functioning independent body is in place to assess and provide advice on aspects such as metrics and mitigation associated with this proposal, there will remain little community trust in terms of noise. These fundamental issues cannot be allowed to continue throughout the DCO process.

10.2.9. This is the very least that should be done for the communities who are in line for the greatest impact ever inflicted, by the expansion of an airport in the UK, and out of respect and fairness to those who will lose their homes, for a development they have been told will be operated sustainably for the good of the UK. This issue will be taken up directly with the relevant Government departments.

Cumulative impacts

10.2.10. The impact of Heathrow expansion on available airspace cannot be underestimated. The Government’s recent consultation on the 2050 Aviation Strategy, Annex A, clearly recognised the importance of requiring the cooperation of a substantial number of airports to all coordinate their airspace changes via the requirement for the development of an Airspace Masterplan. This is required, even with Heathrow under current two runway operations.

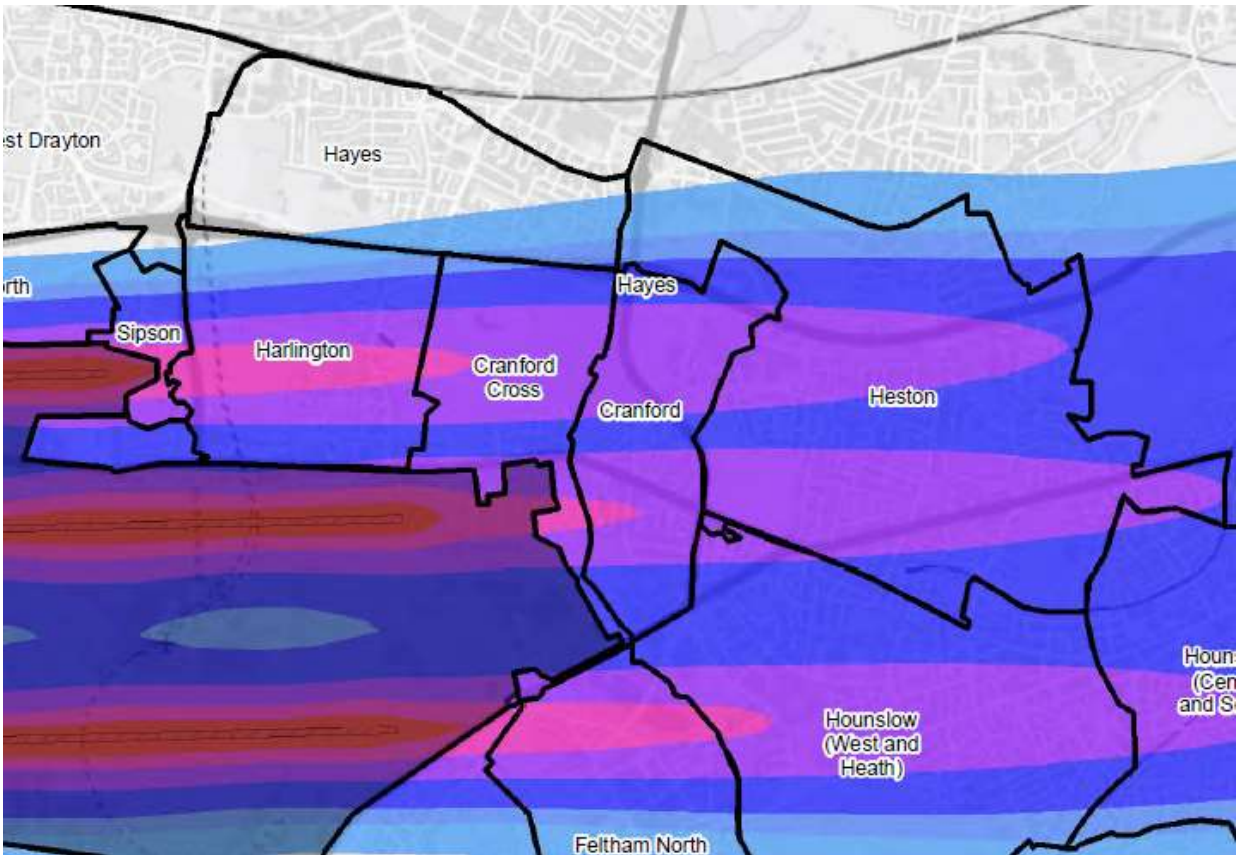
Annex A referred specifically to ensuring powers were granted to ensure this cumulative approach was coordinated.

10.2.11. With Heathrow expansion, the cumulative impacts on airspace could be even greater, especially with other airports in the south east such as London City, Gatwick, Luton, all having plans for increases in capacity under the Government policy of making best use. No evidence has been provided to demonstrate that noise concerns which could arise from a cumulative impact from other airports and their airspace changes can be ruled out in terms of assessment for Heathrow expansion. This DCO process should be halted until this can be assessed in order to determine its significance.

Presentation of Material

10.2.12. The noise figures in chapter 17 provide a very rough overview. However, they are meaningless in determining impacts on receptors. The extract below is a zoomed in section of the areas to the south east of Hillingdon. Making any meaningful assessment of this is impossible.

10.2.13. No doubt a full suite of improved maps will be readily available for the DCO application, however, the presentation material for this PEIR is inadequate and undermines this stage of the process.



10.3. Noise Assessment

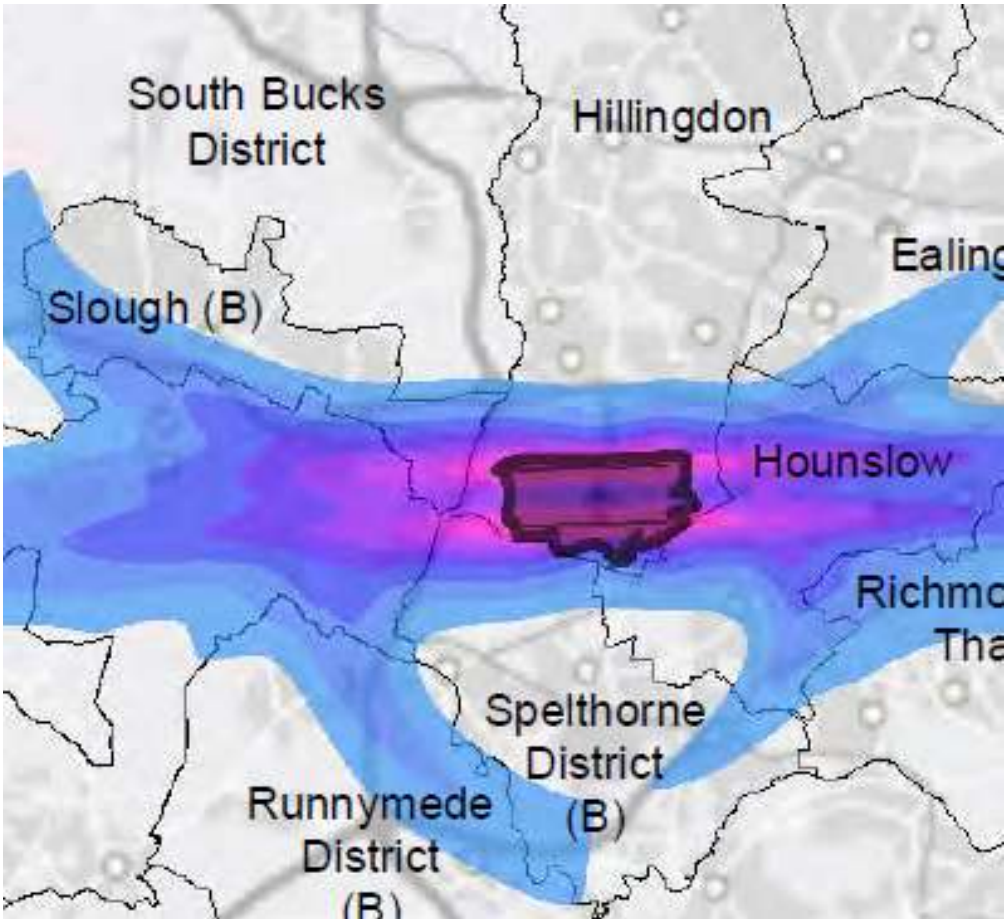
Early growth

10.3.1. More details on this proposal are available in Chapter 4; the specific issues of noise are explained here for consistency.

10.3.2. There is an assumed scenario of how the extra 25,000 early growth flights will be incorporated into operations. This involves 3 extra departures before 7am and an additional 69 ATMs split equally throughout the day. This may not occur in reality and therefore there is a level of uncertainty in regard to the results.

10.3.3. The assessment years are 2013, 2022 base case (prior to airspace design), 2025 without early growth and 2025 with early growth. This appears to be missing an earlier assessment year of late 2022 when there are proposed to be 15,000 extra flights, thus coinciding with a heavy construction period, and then again in 2024 when it is stated that there will be full operation of the early growth proposals which will coincide with the worst case assessment year for construction.

10.3.4. The map below is an extract of the data available on the daytime noise impacts from early growth in 2025. There are no noise maps on the daytime impacts from construction at the peak level of activity.



10.3.5. Plainly, the assessment year used for early growth is not sufficient. It should cover the fuller operation (worst case impacts from operational early growth), i.e. 2025 as well as the combined impacts for peak construction and early growth in 2024 (the worst case for construction noise in combination with early growth).

10.3.6. Aside from the failure to consider the two large noise sources side by side, it is noted that all future scenarios show improvements in terms of numbers exposed from the 2013 baseline. This comparison year is a requirement of the ANPS although it is still unclear why a 6 year old baseline is being used. Notwithstanding that, the assessment should consider the magnitude of impact and not just the change. This is particularly important for noise as the levels in 2013 cannot be said to have been acceptable. So a 0.2dB increase of magnitude, as set out in the PEIR, when you are already suffering from the impacts of aircraft noise exposure, cannot be described as a negligible impact. The airport is still giving rise to significant health impacts which need to be reflected in the final assessment.

10.3.7. Despite the PEIR description of 'negligible', the more detailed analysis indicates 40,000 more people would be exposed to noise above the daytime Lowest Observed Adverse Effect Level (LOAEL) and around 3,300 above daytime Significant Observed Adverse Effect Level (SOAEL). For night-time exposure, there are 2,000 exposed to above the relevant LOAEL and 300 above the relevant SOAEL. This is on top of the unacceptable baseline levels.

10.3.8. Given this, it is clear that using the metric of a magnitude of change to a 16hr LAeq as a measure to describe a level of significance cannot be supported. The ANPS requires the proposals to avoid significant adverse impacts in regards to noise; this Early Growth proposal does totally the reverse.

10.4. PEIR assessment concerns

Modelling approach

10.4.1. The noise assessment refers to the use of two models, AEDT as used in the assessment and ANCON, used by the CAA. As with the surface access modelling, it is not clear why HAL are using a different model to that of the regulator. An independent peer review is required to ensure there is robust justification for the choice.

Indicative flight paths

10.4.2. The PEIR has used ten indicative flight paths for the assessment. By their very nature, as these are all indicative and are not representative of where future flights may actually be, the number is of little relevance. This is precisely the problem with no detailed flight paths; communities will not know whether they will be impacted and it doesn't matter how many indicative paths there are; none of them represent an assessment of what the impact will be and on which people it will fall.

Comparison of effects - 2013 baseline

10.4.3. The ANPS advises that the SoS will consider whether the mitigation measures put forward by the application are acceptable and that the noise mitigation measures should ensure that the impact of aircraft noise is limited, and where possible reduced, compared to the 2013 baseline as for 54dBLAeq 16hr. Whilst this may need to be reported to satisfy the ANPS, it is not correct to use this policy test as a comparison to assess significance in terms of future operations when the future without expansion, due to airspace changes and other operational issues which will happen regardless of expansion, is fundamentally different from the 2013 baseline.

Airspace design

10.4.4. The airspace design process and the use of Precision Based Navigation (PBN) are set to radically change the noise environment in the coming years, with or without expansion. Therefore for the DCO application to be properly informed, it must remain the case that significance is measured by comparing future years without development, and future with, including the same underlying baseline assumptions for both.

Metrics

10.4.5. The PEIR assessment presents noise exposure using a set of metrics that do not allow communities to fully understand the impacts of the proposals. Different metrics are required especially in situations, for example, to specifically account for those who will be impacted for the first time, for communities who may experience increases in frequency of overflights, for those who currently experience 8 hour alternation periods of no flights and will see these reduced.

10.4.6. The DCO application must include information on the range of metrics to be used and how they are quantified in terms of their impacts on communities, so

that the actual impacts can be fully understood. In order to be of any use, the metrics cannot be used merely as a tool to explain the impacts of the noise exposure; they must be used to aid the identification of appropriate operational changes and mitigation measures to improve the noise environment.

Future aircraft fleet

10.4.7. In terms of aircraft fleet mix, the PEIR explicitly states it has not used the worse-case scenario for future aircraft fleet mix as it considers the outcome was highly unlikely. This is not acceptable as an approach.

10.4.8. The impact of using different fleet mix assumptions (better, likely, worse) cannot be dismissed. The PEIR Appendix B presents a sensitivity test for the use of worst case, likely (as chosen) and better case. In terms of increases in population exposure, looking at the SOAEL, the use of worse case would mean an additional 8,000 people exposed during the daytime and 7,000 for night-time. The choice of "likely" as future aircraft fleet mix scenario has not been robustly justified. As stated above, the Council do not believe that groupings set up by HAL represent an independent view; therefore the choice of scenario and its justification must be subject to an independent peer review.

Assessment years

10.4.9. The PEIR has chosen the future assessment worse-case year as 2035 based upon the interpretation of the ANPS of when the noise impact is forecast to be highest (it states the year of maximum proposed movements). However, the graph shown for the noise emissions profile indicates the highest levels in terms of noise emissions being reached are between the years 2030 to 2035. After this point in time, it states noise will reduce based upon the assumptions made on future aircraft fleet mix.

10.4.10. This approach is inadequate. The ANPS seeks a noise assessment for any period of change in air traffic 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 the highest**.** Given the noise emissions profile, the assessment should include with and without assessments for early growth 2024 (with peak construction) and 2025 (with peak early growth), opening year 2027, the years up to and including 2035 plus selected years towards 2050 as the airport reaches 756k ATMs.

10.4.11. For ground noise, the worst- case year is described as 2025 following early growth and then 2050 following expansion. No other years are presented. This is different to the assessment year chosen for aircraft operational noise when it is claimed the maximum proposed movements is set for 2035**.** As with the assessment for aircraft operational noise, the ground noise assessment must be undertaken for early growth 2025, opening year 2027, the years up to and including 2035 plus selected years towards 2050 as the airport reaches 756k ATMs.

10.4.12. For road noise, this has been assessed on 2035 as the worst case year and calculated up to 600m around new or altered highway; on existing roads the area will be defined by an increase or decrease in road traffic volumes and types.

10.5. Identification of significant effects

10.5.1. As stated at the outset, the significant effects of noise cannot be properly assessed without detailed flight paths; therefore meaningful comments cannot be given. This is a totally unacceptable position for the Council to be placed in given the potential for the impacts across such large numbers of people. The DCO process and the ACP process must be properly aligned otherwise the impacts of noise cannot be identified, therefore the assessment fails.

10.5.2. With the caveat of the above, the following comments should be addressed. The approach to the assessment of significant effects has been via an inner area within 24 communities closer to the airport and an outer area where it is stated "the forecast noise levels would not have significant effects on health and quality of life". (para 17.10.3) There is no supporting evidence to corroborate this claim. This is not acceptable and should be fully justified.

10.5.3. The main significance criteria are described as:

> *"LOAEL is identified as the 51dB LAeq16hr contour (day) and 45dB LAeq8hr (night);*
>
> *SOAEL is identified as the 63dB LAeq16hr (day) and 55dB LAeq8hr".*

10.5.4. There is also the introduction of Unacceptable Adverse Exposure Level which the PEIR states:

> *"The UAEL threshold values have been defined based on policy, policy guidance, available evidence and precedent from consented major infrastructure. The UAEL threshold values have been reviewed and endorsed by the independent NERG. (Annex F)"*

10.5.5. Annex D describes how additional factors such as changes in overall noise assessment, addition of metrics factors such as N60/N65 and the use of numbers of overflights could be accounted for along with an additional factor which could be used to change this outcome such as the provision of respite.

10.5.6. As stated previously, ICCAN has been set up to ensure there is independent guidance in regard to aspects such as metrics. The use of the group NERG in this regard is not supported. There needs to be a full independent assessment of the metrics chosen, how the inclusion of additional metrics such as overflights, periods of respite and noise levels of individual aircraft can all be quantified to ascribe proper mitigation to the harm caused. In the absence of guidance from ICCAN, this must be peer reviewed and presented prior to the DCO application.

Runway operation with the DCO Project

10.5.7. As stated previously, in the absence of flight paths the majority of noise mitigation measures amount to nothing more than ideas; there is no quantification of their effectiveness in terms of noise impact. The mitigation measures suggested need to be informed, by way of the provision of properly quantified evidence, that prove these operations actually compensate for the detrimental impacts caused to health and quality of life. Without this evidence they become merely suggestions; therefore meaningful informed comments cannot be made. The following provide some examples.

Runway alternation modes

10.5.8. Assumptions have been made in terms of the runway mode operation. Respite is defined as predictable relief from aircraft noise for a period of time for local communities. Relief is defined as a break from or a reduction in noise. Current respite is an absence of flights for a defined period of 8 hours achieved by a switch of runway use. These current respite periods are set to be reduced by the implementation of the DCO project, there is no clarity as to whether the communities will receive an absence of flights in the scenarios presented, as they currently do.

10.5.9. There are no accompanying descriptions or quantifications as to what respite or relief are intended to achieve. The suggested modes of use do not explain what the impact will be, they do not quantify the impact in terms of increases in noise/absence of noise, frequency of aircraft, they do not quantify the reduction in noise communities can anticipate receiving when the mode is deemed to give them relief/respite. Research being undertaken by HAL in regards to respite

suggests that "valued" respite is a reduction above 9dB, with a noticeable difference reported in a reduction of 4dB to 9dB. There needs to be clarity as to how the DCO project intends to measure that valued respite and noticeable respite has been achieved, at which locations and for the anticipated period of time.

Night flight ban

10.5.10. HAL continues to ride roughshod over the community requirements for a good nights' sleep. There is no independent evidence provided to assess how the airlines' call for their early morning slots is demonstrated to be of more benefit than thousands of communities who would receive proper respite and gain a decent nights' sleep.

10.5.11. The PEIR has assessed the implications of a night flight ban between 23.00 and 05.30. This is not sufficient. The requirement for good quality sleep in terms of health benefits is well researched and more evidence provided again very recently (http://www.airportwatch.org.uk/2019/07/government-sleep-guidance-advises-at-least-7-hours-sleep-a-night-while-it-allows-plane-noise-that-prevents-this/) The Airports Commission sought a 23.30pm-6am total ban; communities have demanded a 23.00-07.00 total ban to cover the night period.

10.5.12. In addition, the presentation of the timing is misleading given that the PEIR definition of scheduled time in the PEIR is the "on stand" time. For arrivals, this means an on-runway time approximately 15 minutes earlier i.e. 05.15; therefore the promoted ban is actually to 05.15 in terms of people impacted by arrivals. When taking potential night recovery times into account from 23.00 for an hour, as described in the PEIR, then the period of night flights could be reduced for some communities to five and a half hours.

10.5.13. The exact time period has not been enforced by the ANPS which states that it must be between the hours of 11pm to 7am. A range of other time periods should be assessed and presented as part of the DCO process. The ANPS clearly states the exact timings should be defined in consultation; this PEIR simply presents one view, the HAL view. A proper assessment including the costs and benefits must be presented to allow for an informed comment to be made.

Noise envelope

10.5.14. The T5 Inquiry led to the setting of an ATM cap of 480, 000 ATMs. This has acted as a form of noise envelope. Whilst it may not be able to identify where the

aircraft actually fly, for the communities it adds a level of community understanding in terms of the number of aircraft i.e. when capacity is reached there will be no further events.

10.5.15. The PEIR refers to the setting of a new noise envelope with an objective:

> *"To limit and, where possible, reduce the effects of noise on health and quality of life and deliver regular breaks from scheduled flights for our communities during the day and night. We need to do this whilst making sure the measures we put in place in line with the ICAO Balanced Approach"*

10.5.16. This is not supported. The noise policy is to:

> *Avoid significant adverse impacts on health and quality of life from noise;*
>
> *Mitigate and minimise adverse impacts on health and quality of life from noise; and where possible, contribute to improvements to health and quality of life.*

10.5.17. The key issues of avoiding, mitigating and minimising need to be incorporated into any noise objective, and hence any identified mitigation measures, must be set to achieve this objective.

10.5.18. The PEIR gives examples of how a noise envelope could be formulated. One such option is the use of the metric "quota count". This provides a "noise total" for the airport) based upon the quota counts of each aircraft. As the quieter aircraft with lower quota counts replace those with higher quota counts, there can be an increase in aircraft numbers within the "quota cap".

10.5.19. This approach ignores the evidence in the ANPS which, while acknowledging there have been "*technological and operational improvements*" over the decades which have made aircraft quieter, also states that the evidence in fact shows that people's sensitivity to noise has increased in recent years. Therefore, the use of quieter aircraft alone is not a solution.

10.5.20. The quota approach to a noise envelope simply gives the airport the ability to continue to increase flights; it misses the key fact that, as research in to aircraft noise has shown and is reflected in Government policy, it is not just the noise from one aircraft that contributes to annoyance and the health impacts this brings, it is also the frequency. By not having an ATM cap, this key impact is not captured. It is also noted that the assumed aircraft fleet mix refers to QC0 aircraft. Under an envelope set by a quota count, this implies there could be any

number of increasing QC0 aircraft. This is a totally unacceptable situation.

10.5.21. A cap on numbers also helps to control other environmental impacts such as the impacts of increased passengers and freight associated with each increasing movement in terms of air quality and also ever increasing burdens being placed upon the road and public transport networks. Without such a cap, the airport will continue to grow unsustainably with consequent detrimental impacts on many other areas which impact on the health and well being of all the surrounding communities.

Provision of insulation

10.5.22. The PEIR approach to meeting the test of avoiding significant effects is by the provision of mitigation and compensation. This is not supported; avoid means avoid. There is no assessment of the effectiveness of the identified insulation in terms of mitigating any of the detrimental impacts on the quality of life for thousands of people.

10.5.23. For example, is there a requirement to take account specifically of those communities who will be newly exposed? For these communities this could mean living for the first time in sealed units with windows that cannot be opened and outdoor space that cannot be used, or mitigated, in terms of noise. For schools, the impacts on children's' learning and ability to enjoy outdoor space is substantially impaired across a wide area. There must be mitigation measures that can be put in place to ensure this impairment is repaired.

10.5.24. Without the provision of the proven effectiveness to properly mitigate and compensate for the detrimental impacts on health and well being brought about by exposure to aircraft noise, no meaningful comments can be made. This must be addressed before the DCO application. In addition, any mitigation measures must be proven to be effective and be fully installed prior to the operation of the third runway; this must include impacted schools and other non-residential receptors. The economic impacts of this must be fully accounted for.

10.6. Conclusion

10.6.1. It has been impossible to engage meaningfully on the noise impacts without a clear understanding of the flight paths. The failure to combine air space change processes with the DCO procedure undermines the ability to assess Likely Significant effects in the subsequent environmental statement. There is no indication this will be rectified.

10.6.2. What has been presented in relation to noise is therefore a theoretical exercise, but one that fails to encompass all the elements of a noise assessment. The approach to noise is considered inappropriate and the decisions for HAL to set up their own independent body is quite clearly a contradiction in terms and cannot act as a proxy for genuinely independent body that has the trust of communities to be impacted.

10.6.3. The thresholds for assessing noise are not considered robust enough and the precautionary approach does not appear to have been adopted. The cumulative impacts cannot be clarified without flight path data, which in turn means the harm of the development cannot be determined.

10.6.4. In general, there are a range of problems with the approach to the noise assessment that is further hindered by a limited grasp of the health effects from adverse noise impacts. Consequently, the Council does not consider that HAL has successfully demonstrated that the project can be delivered with minimal harm to residents.

11. Biodiversity

11.1. Overview

11.1.1. The biodiversity impacts and subsequent assessment of effects can only be determined following the completion and disclosure of a full suite of survey work. This has not been provided.

11.1.2. The PEIR provides conclusions based on apparent field surveys but these are rendered meaningless without any of details of the survey work. The PEIR states that there has been a 56% completion of the necessary dates ranging from 2017 to 2018 but none of this work has been provided.

11.1.3. It is therefore not possible to determine whether or not the surveys were accurately undertaken, sufficiently comprehensive or suitably scoped.

11.1.4. The assessment is further hindered by the poor presentation of the details on the few maps provided. For example, figure 8.46 (Badger results) shows foraging signs (green circle) in an area measuring nearly 200 hectares. It is not clear, without the source material, whether this whole area was surveyed, whether the green circle is representative of a wider result, or if indeed there really is just one isolated discovery of a foraging sign across a huge expanse.

11.1.5. The biodiversity volume is essentially made up of the conclusions from surveys that have not been disclosed and information unclearly presented on a small number of maps at an inappropriate and unhelpful scale.

11.1.6. The PEIR therefore cannot be properly interrogated with regards to Biodiversity at this stage.

11.2. Covered River Corridor

11.2.1. Notwithstanding the above, there are references within the report that are wrong and need clarification. Table 8.22 identifies that the Bigley Ditch will have no channel loss. This is not entirely clear from the water environment volume where there is uncertainty about how the Bigley Ditch is treated within the project.

11.2.2. Figure 21.3 of the Water Environment Volume shows that the Bigley Ditch will have a significant stretch of abandoned channel. It appears to flow into a new river Colne stretch which is then culverted under the new runway.

Consequently, there does appear to be a loss of the Bigley Ditch corridor.

11.2.3. In general, the Covered River Corridor is nothing short of a disaster for a myriad of open water channels including highly valued main rivers. These rivers flow through areas of mitigation that were put in place to offset the harm of the Terminal 5 development. For the most part, these rivers and their extremely important corridors are not accessible.

11.2.4. Extending Terminal 5 into these areas is therefore the final part of a large scale erosion of a pristine river corridor network. The Council fundamentally objects to the loss of these areas which are considered to provide a virtually unbroken green chain running the length of the Colne.

11.2.5. Furthermore, any mitigation to offset this loss is not mitigating the DCO project; it is simply moving the mitigation of Terminal 5, which in itself was particularly harmful to the natural environment.

11.2.6. The scant information provided on survey results does show this corridor to have particular importance for wildlife which appears to be understated in the report. In response to the impacts on the river corridor the consultation states:

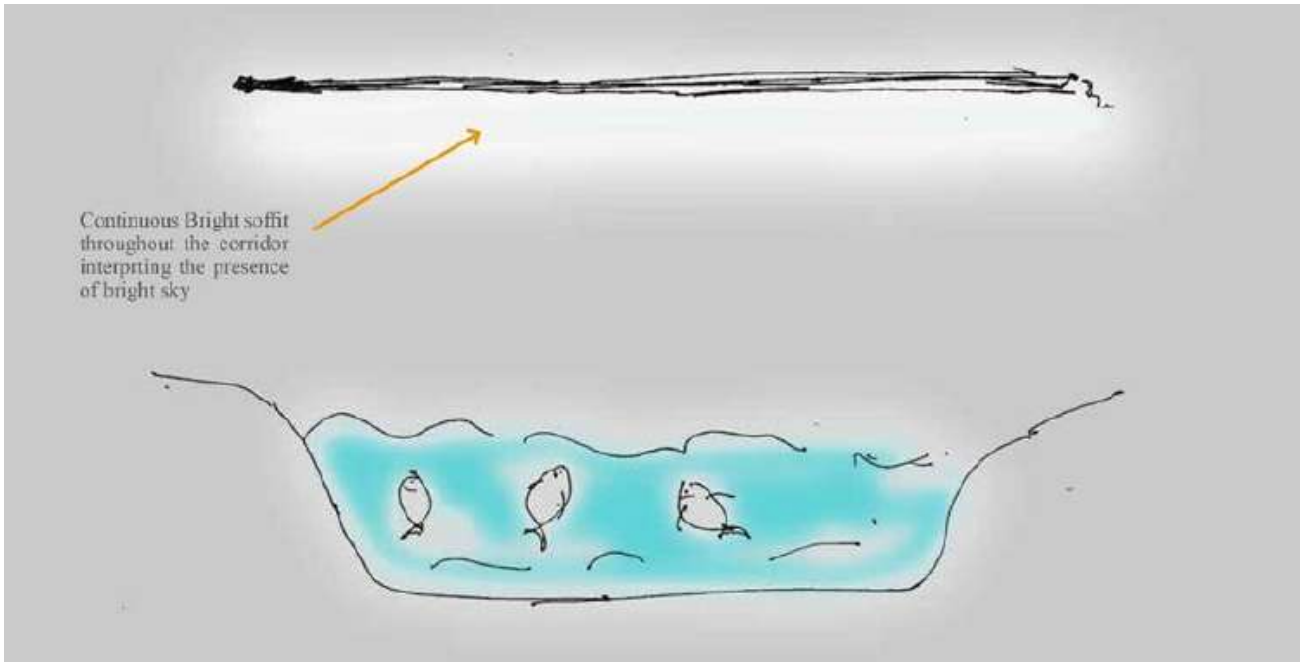
> *"Space would be provided for riparian corridors of between 8m and 20m either side of the river channel. In these corridors, appropriate vegetation would be provided to maximise the ecological connection between the floodplain and the channel once matured".*

11.2.7. Self evidently, the Covered River Corridor will sever any of the current ecological linkages and will effectively act as a barrier across the River Colne. The reference to the distances either side should also be put into the context of the current baseline which at its widest is nearly 1km wide. The impact of reducing this down to 20m, then 8m, and then finally nothing, in the covered section cannot be understated. This is the destruction of a valuable river corridor.

11.2.8. The lack of plans related to the Covered River Corridor and wider network in the ecology section allow for a variety of implausible statements to be made about the efficacy of the mitigation provided in the project. There are, however, some plans included within the accompanying preliminary Water Framework Directive (WFD) report which shows the level of work undertaken to date on the Covered River Corridor.

11.2.9. There is no denying the extent of the harm associated with the Covered River Corridor. It is therefore inconceivable that this key stage of consultation

contains no coherent plan to offset the harm. Instead, the WFD report contains extremely vague hand drawn concept plans including this one:

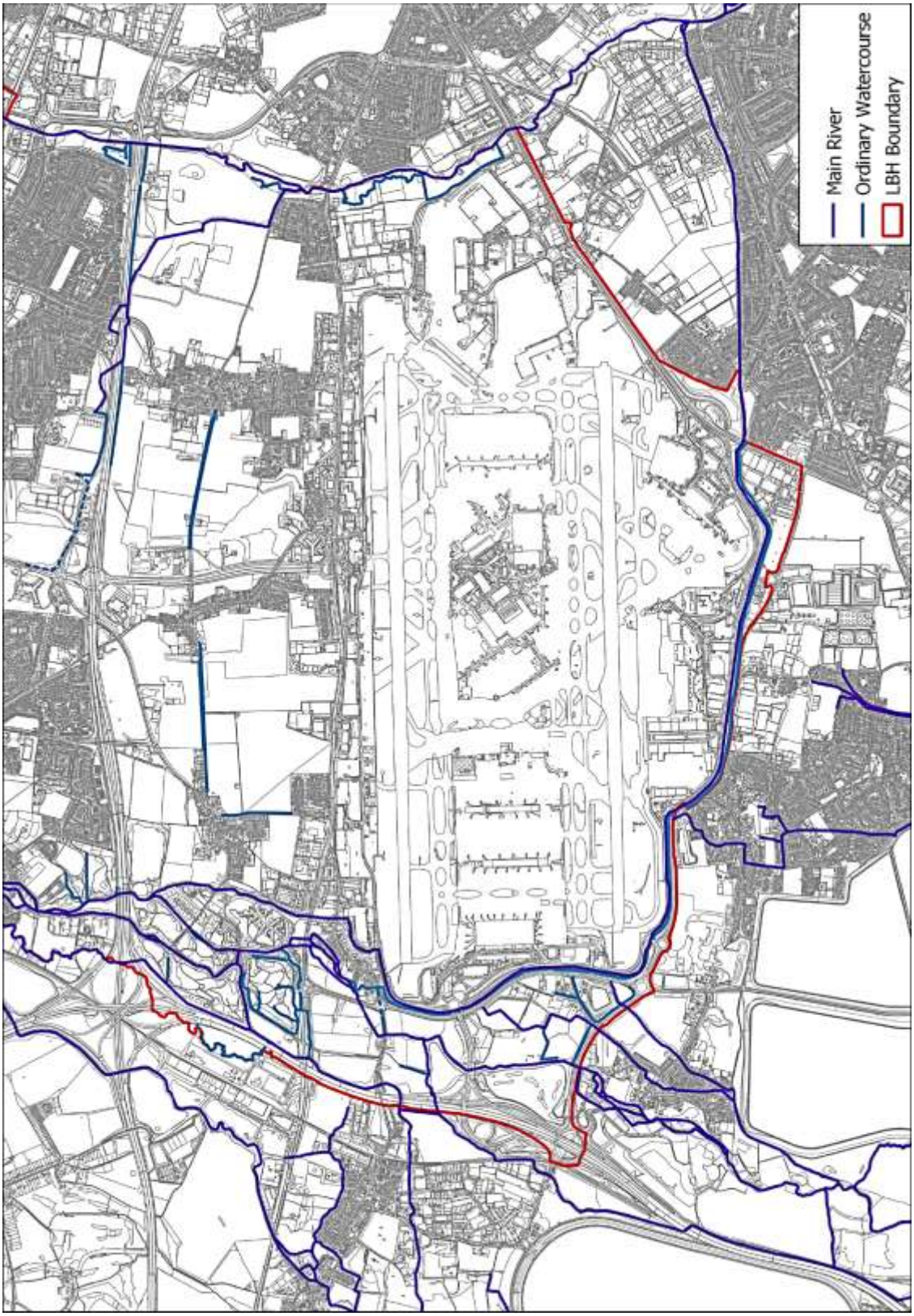


11.2.10. The report then goes on to present lighting and ventilation plans at a similarly vague and superficial level to demonstrate how this river corridor might be able to work. The concepts provided appear to be about as well developed as the sketch above. Serious comments cannot be given on such poorly presented material. In summary, the approach to ecology on the Covered River Corridor and wider network needs to be developed further. The information presented provides no comfort that this issue is being taken seriously.

11.3. Lack of Water Information

11.3.1. The consultation provides no clarity on how the river corridor, covered or not, will function with regards to water quality and quantity as well as flow. Consequently, no conclusions can be reached on the ecological impact until this work has been undertaken.

11.3.2. Similarly, no information on ordinary watercourses has been provided, meaning the extent of impacts is understated and the assessment of likely significant effects not properly developed. The map overleaf presents the overview of ordinary watercourses. These perform vital linkages between main rivers and act to divert, channel and store water. Ignoring these effectively ignores the true extent of the water management regime and therefore entirely undermines the assessment on the water environment.


Main River
Ordinary Watercourse
LBH Boundary

11.4. Links to Colne Valley Regional Park

11.4.1. Natural England has confirmed that species of wildfowl using the special protection areas (SPA) to the south and west of the airport will utilise the Colne Valley Lakes. There are a number of records of Gadwell and Shoveller using the Broadwater Lake SSSi which are two of the species important to the SPAs.

11.4.2. The runway will sever the links on this valley which does not appear to have been assessed.

11.4.3. The impacts of HS2 on the Colne Valley, alongside Heathrow, have also not been assessed. Both these projects will impact these important wildfowl to varying degrees. The combination of both projects has not been assessed.

11.5. SINCs

11.5.1. The information on the sites of importance for nature conservation is inaccurate. The Council's Local Plan Part 2 contains the most up to date information. This plan is likely to be adopted at the end of 2019 / beginning of 2020. Until then, the designated SINCs are set out in the Council's Unitary Development Plan from 1998.

11.6. Offset and Mitigation

11.6.1. HAL has committed to the concept of net biodiversity gain and will utilise the DEFRA no net loss metric (with some amendments) to demonstrate this. The approach is said to have been agreed with Natural England and the Environment Agency.

11.6.2. A similar approach has been adopted for HS2 with so far questionable outputs. The first major concern is that the approach, as with this project, is not open and transparent.

11.6.3. A further concern is that net gain should not result in the 'buying of permission'. That is to say that what is lost will be gone forever and no intervention in other areas will act as a suitable replacement. This is true of the River Colne corridor in between Heathrow and the M25. This is a long standing and well established wildlife corridor. Making improvements elsewhere in the Colne Valley will not make up for this loss.

11.6.4. The approach to mitigation is also hampered by the fact that HAL appears to have chosen an approach of creating 'better areas' on 'smaller footprints'.

Reducing the size of areas allows for no long term ability to create 'better areas' on 'larger footprints'. This approach is not supported.

11.6.5. The Council is also concerned that minerals sites have been removed from the concept of net gain. Minerals and waste permissions are generally temporary with restoration proposals that include wildlife areas and potentially more prominent uses such as agriculture, which inherently has a wildlife value. The subsequent DCO assessment must consider the end use of minerals sites and not the operational use. These areas should not be treated as having negligible ecological value.

11.7. Proposed Planting

11.7.1. The consultation places a great deal of weight on new planting and new green spaces. However, what the consultation does not accurately present is that these areas are managed carefully to reduce their biodiversity potential. For example, active tree management and constrained planting mixes are employed to reduce bird strike.

11.7.2. Similarly, HAL, through the application of outdated CAA and NATs advice, regularly constrain ecological enhancements in new development, i.e. through objections to green roofs. This in particular is difficult to reconcile since one of the largest green roofs in Europe is at Schiphol Airport.

11.7.3. The DCO submission needs to either present a clear and consistent habitat management plan that should temper any weight given to new planting areas, or clearly set out what the management plan would be for each parcel of green space. Either way, stakeholders need to be presented with a true reflection of the long term value of biodiversity planting and new green space.

11.8. Conclusion

11.8.1. The Council cannot provide any opinion on the assessment of significant effects without the supporting information being made available. The Council would request that all material is provided ahead of the DCO submission to avoid overloading that future process.

11.8.2. The sheer scale of destruction to the river corridors west of the airport boundary and the in combination effects throughout the Colne Valley have not been adequately addressed. The mitigation proposals and 'no net loss' proposals are equally poorly developed and presented; consequently, the general conclusion

to reach at this stage is that a) the biodiversity impacts are understated and not appropriately acknowledged and b) the mitigation proposals are entirely inadequate.

12. Heritage

12.1. General Introduction

12.1.1. The heritage assessment identifies that the report only presents the preliminary results of the assessment of likely significant effects of the DCO project with respect to the historic environment, including designated and non-designated heritage assets.

12.1.2. The inclusion of non-designated heritage assets as well as designated heritage assets is welcome; the lack of these was highlighted in Hillingdon's comments on the Heathrow Scoping Project. The combination of two assists in understanding the scope of the historic environment.

12.1.3. Elsewhere, this section lays out the structure of the report and other parts of the PEIR that should also be consulted upon.

12.2. Relevant legislation, policy and other important and relevant matters

12.2.1. The key legislation is covered in the scope of section 13.2. However, the 'relevance to assessment' column of table 13.1 regarding the Listed Buildings and Conservation Areas Act is misleading.

12.2.2. The legislation assists in terms of understanding the significance of heritage assets through their designation, and also informs assessment of significance on non-designated heritage assets.

12.2.3. The legislation provides the framework for designation but the act of designation, although recognising the special architectural and/or historic interest of a building, does not necessarily lead to a full understanding of the significance. Identifying the sensitivity of a receptor is therefore not uniform across listings (statutory or non statutory). This requires a deeper research and analysis. The comments also suggest that the Act 'informs assessment of significance on non-designated heritage assets'.

12.2.4. The Act does not cover non-designated heritage assets rendering this statement unclear. Applying the Act crudely, and with little analysis, presents the preliminary assessment as being little more than a superficial exercise which is focussed on numbers and lists, as opposed to significance.

12.2.5. This is not appropriate, particularly since the project will result in the destruction

of so many important heritage assets, each with its own unique historical significance. The project will also fundamentally undermine what little remains south of the M4 and in any event will remove and disrupt communities that help shape the historical landscape and continue to connect people to historic settings.

12.2.6. The ANPS, laid out in table 13.2, lists the sections that are relevant to the historic environment. Paragraphs 5.193-5.195 sets out what will be needed for the environmental statement. The wording is extremely close to the National Planning Policy Framework in that it requires an applicant to provide a description of the heritage assets affected and the impact on the contribution of their setting to significance. This should be proportionate to the assets' significance and as a minimum requires consulting relevant Historic Environment Reports. This requirement was set out in the Council's EIA scoping response but it is noted that it is yet to be done.

12.2.7. The ANPS sets out the requirement to assess the impact of noise and light where the proposal will affect the setting of the historic environment (5.194). It encourages applicants to prepare proposals that make a positive contribution to the historic environment and consider how the scheme takes account of the significance of heritage assets affected. This might be done through design or considering measures that address those heritage assets at risk and consider the effect of noise and light, and if there are opportunities to enhance access or understanding. These are all important markers through which this PEIR needs to be judged against.

12.2.8. This section lays out the Regional and Local Planning, with a short list stating which LPAs Local Plans have been considered. The policies described in Volume 3, Chapter 2: Legislative and policy overview Appendices. Chapter 7; Table 7.1. deals with local policies on the historic environment with a separate column on “relevance to assessment”. The response given is a variation of the same points to all the policies, irrespective of what they are. These are that the project has been designed to minimise the effect on heritage assets, that the land take has been minimised and that much is within areas that have already been archaeologically excavated, the project will ensure the recording of sites and dissemination of the information, that opportunities for high quality design, maintenance and enhancement have been considered.

12.2.9. The response to this requirement is bland and does not address the specifics of local policy at all and it also ignores the overriding requirement in the Local Plan: Part 1 Strategic Polices, HE1, that Hillingdon will seek to conserve and enhance

Hillingdon's distinct and varied environment, its settings and the wider historic landscape.

12.3. Scoping and engagement

12.3.1. This section discusses the Scoping Report of June 2018 which set out the proposed historic environment assessment methodologies, outlined the baseline data collected to date and proposed for the ES.

12.3.2. Table 13.3 lays out five of the comments made; it is stated that additional comments are described and assessed in Appendix 5.1: Response to the Scoping Opinion, Volume 3. When the two are compared, they appear to be exactly the same and there were no additional comments. The comments were all made by the Inspectorate; no other consultees' comments are noted which either demonstrates a lack of understanding of other comments or a lack of attention to the work necessary.

12.3.3. The comments above have been caveated and the consultation documentation states that all comments will be addressed in the ES and have not been done yet. This is of concern, as of the three macro points that Hillingdon made in response to the Scoping Report, only one has been fully addressed; this is the need to include non-designated heritage assets. The level of detailed research needed to fully understand significance has not been addressed at all in the PEIR report and the need to create a third study area which solely focuses on the heritage assets in the immediate vicinity of the airport has only been partially addressed in the PEIR. These assets are still seen in the wider context of the larger Core Study Area. Since the scoping report concerns methodology, it seems extremely tardy to only address the comments in the ES and not the PEIR.

12.4. Scope of the assessment

12.4.1. This section describes the spatial and temporal scope for the assessment as it applies to the historic environment and outlines the receptors on which assessment has been undertaken.

12.4.2. Two areas have been identified; the core area which comprises the site including all temporary construction works extending one kilometre of that boundary and divided into twelve areas. While the impact of construction works on the heritage assets is clearly important, they are temporary (excepting accident or disaster).

12.4.3. There should be a further core study for one kilometre of the proposed airport boundary so that the real historic environment impact can be understood. By choosing the method they have, the area extends north of the M4 covering Hayes, West Drayton, and further north Yiewsley and Cowley. There is clearly an enormous difference between the impacts of the project on the setting of heritage assets in Cowley and the complete demolition of the conservation area and heritage assets of Longford. The outcome of this methodology for the core area is the devastating impact of the DCO project on the immediate villages underneath, and to the north, of the proposed runway is diluted.

12.4.4. The boundary of the wider area follows mapped noise data contours relevant to the detailed assessment of Categories A and C themed heritage assets, as laid out in 'Aviation Noise Metric - Research on the Potential Noise Impacts on the Historic Environment by Proposals for Airport Expansion in England (Temple 2014)'. This study area will be divided into east central and west. The areas of Hillingdon that are in the wider area are also in the Core Study area. The wider area then spreads east and west of this boundary.

12.4.5. The temporal scope has been phased so that at times there is both construction and operational impact. The phases are phase 1: 2022 to 2026 construction moving rivers and roads, phase 2: 2026 to 2033 further work to airfield and other infrastructure and phase 3:2034 to 2050 low levels of development mainly within the airport. For construction effects, the year chosen will be 2024 and for operational effects, it will be 2035.

12.4.6. The receptors are then described in three groups, the built environment, the historic landscape and heritage assets of archaeological interest which are identified later in the report. Rather ominously, these will be kept under review as the EIS progresses.

12.4.7. Table 13.6 lays out the potential significant effects divided into construction and operation, detailing the activity followed by a column on the effect, with in essence the effect being divided into direct loss of significance or change effecting the setting some of which will be temporary others permanent. There is little contention here.

12.4.8. In the section entitled, “Effects no longer being considered” point I3.4.23 states that in the wider study area, only specific classes of heritage assets are to be considered that conform to category A and C as laid out in Temple (2014). Category A is defined in this document as:

"When solitude, embedded with quietness, is intrinsic to understanding the

form, the function, the design intentions and the rationale for the siting of a heritage asset".

12.4.9. Category C:

"When the abandonment of a heritage asset; a monument, building or landscape, in antiquity (or more recently), has created a perceived 'otherworldly romanticism' enabled by the absence of anthropogenic sounds (quietness)".

12.4.10. The approach adopted in the PEIR is therefore extremely limited. The omitted categories are:

"B - When a non-quiet and specific existing soundscape forms part of the functional understanding of the heritage asset e.g. windmills, open air theatres, cascades and fountains;"

"D - When the absence of 'foreign (modern) sounds' allow an asset to be experienced at 'a very specific point in time' that is intrinsic to understanding the heritage assets significance e.g. the period of the monument or buildings construction".

12.4.11. There is an argument that the Temple report is extremely limited in terms of the impact on noise. There are a huge number of listed buildings that do not fall into any of these categories, particularly domestic buildings, whether they are grand country residences or simple village houses, these would not be covered by any of these categories. Without covering examples of such buildings, the impact assessment of noise will be limited and not result in the true likely significant effects of the scheme. This is particularly important in terms of noise given that heritage assets not demolished in the area take on a greater degree of importance; these assets should not be written off in the assessment because they don't meet limited criteria in a non-statutory noise document. The purpose of the EIA is to determine likely significant effects and this requires HAL to engage at a meaningful level with the heritage assets the project will impact.

12.5. Embedded environmental measures

12.5.1. This section describes the embedded measures that "are intended to avoid, mitigate and minimise harm to heritage assets during airport construction and operations and provide a strategic approach to delivering positive contributions to the historic environment".

12.5.2. There is an accompanying table (13.8) of eleven historic environment principles

that are to be applied to minimise the harm of the DCO project. HAL claims these have influenced the masterplan but in reality, these appear to have been developed after the expansion proposals have been developed: The principles are as follows:

> *"Longford and Harmondsworth – Heathrow will seek to restrict land take which affects conservation areas and heritage assets to the minimal necessary for the DCO Project".*

12.5.3. It is extremely difficult to see how these principles have been applied given the whole of Longford is destroyed as is half of Harmondsworth.

> *"Historic Environment Placemaking – Heathrow shall ensure that the historic environment is a key consideration in placemaking, including where relevant exploring opportunities for understanding and enhancing the way in which the changing urban relationships in locations beyond the historic secured Airport boundaries are experienced, and considers the new and positive ways to address the challenge of reconciling the needs of a modern airport hub with the significant neighbouring historic places".*

12.5.4. Again, there appears to be little correlation between the masterplan and the less than clear principle of reconciling a modern airport hub with the historic places; especially as seen above, HAL is only consider the impact of the 'hub' on certain heritage assets.

> *"Heritage Public Value – Proposed recording, interpretation and design enhancement measures for heritage assets should seek where practicable to realise opportunities to promote public value and the engagement of:*
>
> *1. the individual: learning and health and wellbeing;*
>
> *2. the community: social capital, community cohesion and citizenship;*
>
> *3. the economy: job creation and tourism".*

12.5.5. Whilst these words appear to be generally positive, it is not at all clear what they mean. There needs to be a greater degree of understanding by HAL of the sheer scale of destruction of the historic environment. The above rhetoric is not appropriately placed for an assessment of likely significant effects.

> *"Historic Environment Significance - Wherever practicable the DCO Project design will retain, conserve or enhance the character of the historic environment, and shall take all appropriate opportunities to make a positive contribution to its significance".*

12.5.6. This is a bold claim but requires a far greater level of clarity as to how it can possibly be implemented. Firstly, the project results in the failure to conserve a great number of heritage assets. Secondly, there is absolutely no evidence as to how this huge project will result in 'enhancement'.

> *"Local Conservation – wherever possible Heathrow will coordinate its heritage enhancement measures (including design enhancement and interpretation) with any relevant local conservation programmes or initiatives".*

12.5.7. The consistent use of 'where appropriate and practicable' is of concern. It is even more concerning given that not one meaningful example has been presented.

> *"Connectivity and heritage - Heathrow will [seek to] ensure that designs for improvements in connectivity, such as highway alterations, active travel plans or digital infrastructure, shall respect historic character".*

12.5.8. Again, this lacks any practical meaning and no examples have been provided.

> *"Retention of historic fabric and form - Heathrow will ensure where physical works are proposed to heritage assets, such works should so far as practicable seek to maximise the retention of historic form and fabric".*

12.5.9. At this stage, the Council would expect HAL to know what works would be required to heritage assets and therefore set out in the consultation the practical effect of this principle.

> *"Noise Monitoring Equipment - Heathrow will ensure that any monitoring equipment required for assessing the effects of the DCO Project, is, as far as possible, designed to be unobtrusive and to minimise any potential impacts on the significance of the relevant heritage asset".*

12.5.10. There should be no reason why noise monitoring equipment should further undermine heritage assets.

> *"Reversible heritage alterations – Heathrow shall ensure that wherever reasonably practicable physical alterations to heritage assets shall be reversible, especially for those of a temporary nature undertaken during construction of the DCO Project".*

12.5.11. The primary approach should be to avoid harm. The fact HAL is committing to making good on heritage assets should not mean that it is an acceptable starting position.

"Historic assets removal - Heathrow will ensure that where listed buildings/structures, or other assets of identified historic interest are to be wholly or partly removed, an assessment will be undertaken to determine if re-location, or the recovery of heritage materials and artefacts, are viable and appropriate options".

12.5.12. This would be preferable to wholesale demolition but no criteria have been presented as to how this is going to be practically implemented.

"Economic sustainability through heritage connectivity - Heathrow will ensure that, where practicable, designs for improvement in connectivity shall seek to make a positive contribution to heritage resilience by ensuring the economic sustainability of communities or institutions responsible for the care, maintenance and conservation of heritage assets (including conservation areas)".

12.5.13. Most heritage assets are in private hands so there is genuine confusion as to what this principle entails. It seems to suggest there will be a fund available for the continued care of assets that remain in the impacted areas. This requires clarification as well as where and how it will be implemented.

12.5.14. There is a third column to the table which is intended to identify how these principles contribute to the DCO Project. Against 10 of the principles, the following is recorded:

"Has informed the PEIR embedded measures and will continue to inform the development of embedded and additional environmental measures forming part of the DCO Project and to be assessed in the ES".

12.5.15. This is a meaningless conclusion that has no clarity of practical delivery and implementation of the principles. There is absolutely no clarity as to how any of these principles have informed the PEIR.

12.5.16. Four additional measures are listed outside the table at 13.5.4. These either duplicate measures set out in the table or as equally non specific and heavily caveated. In addition, point 4, is simply not possible to support. It is difficult to see how the green loop contributes to 'heritage sustainability and engagement' and it is especially difficult to understand how the green loop contributes to 'interpretation'.

Strategic Framework

12.5.17. A strategic framework is purported to have influenced the design evaluation and

has been incorporated into the PEIR. These strategies are 'embedded' within the ongoing EIA process and include 1) a Heritage Management Strategy, 2) Heritage Design Strategy 3) Heritage Interpretation Strategy and 4) a Historic Environment Research Framework.

12.5.18. These will be prepared in accordance with the generic and vague historic environment principles described above. They will apparently provide 'strategic approach that informs the project from the early stages through to completion'. The project is not at an early design stage and developing strategies to protect the historic environment after the main body of work has been completed is clearly not going to achieve the protection necessary. Points 2 and 3 are equally vague, non-descript and without any meaningful or practical process for implementation.

12.5.19. It is also very concerning that HAL is asking the Council to provide comments on their approach to heritage protection without providing any further details on the strategies which will be developed further through the EIA. These are claimed to be some form of embedded mitigation. This embedded mitigation is supposed to inform design but clearly cannot as the project has been designed and the approach to embedded mitigation is still being developed. The claims of protecting the historic environment through embedded design principles are therefore a fundamental misrepresentation. The reality appears to be that the project has been designed and whatever historic assets are left may be dealt with through the EIA stage 'if practicable'.

12.5.20. Table 13.9 is simply a tabulated form of the above and therefore adds very little and continues the narrative of lots of strategies and ideologies to heritage protection whilst ignoring the fact the project has been designed and a vast number of heritage assets have not been protected by embedded design principles. This table also still fails to address the significance of the assets being impacted.

Conclusion on embedded design protect

12.5.21. Unfortunately, the PEIR demonstrates a distinct lack of understanding or care for the historic environment within the project. Presenting what amounts to a final design, whilst simultaneously advising that the final design will aim to minimise harm to the historic environment through measures not yet fully developed is somewhat duplicitous.

12.5.22. Evidently, the project will result in significant amounts of harm to the historic

environment requiring a far greater level of protection for what remains. The remaining historical assets should be a key factor in identifying elements of the project that have flexibility in location. This is implied in terms of what will happen at the EIA stage when embedded mitigation measures are developed further, but this is plainly too late as parts of the project have already been fixed without seemingly any regard to the historic environment having been taken.

12.6. Information management

12.6.1. The data sources are then laid out in table 13.10. These appear to be a really superficial list making exercise. While certainly being an important first stage to compiling a comprehensive list of heritage assets, this information is readily available online to anyone and requires no skill in accessing. The concern is that there are no additional references; there is no archival research and no secondary literature which might provide interpretation and analysis leading to a greater understanding of the heritage assets.

12.6.2. For the Council, it has simply accessed the maps and conservation area appraisals and CGMS archaeological reports. A list does not denote significance.

12.6.3. Now would also be the time to start presenting the baseline position and determining the significance of assets. Technically, this would be the role of the Scoping Report (EIA stage) but at the very least it should happen in the PEIR. Identification of the receptors, and attributing sensitivity, would at least then allow for a more informed assessment.

12.6.4. Unfortunately, the level of work completed to date or at least not shared, means the DCO stage will require discussions about receptors, their sensitivity, the impacts and consequently the effects. This is leaving a lot of unseen work until the last stage. This renders this consultation virtually redundant.

12.7. Desk based study

12.7.1. As with many other topics in this consultation, there is extensive reference to desk based studies without disclosing this work. It is therefore not possible to comment on the desk based work to any degree.

12.7.2. In addition, HAL's refusal to provide GIS data files unnecessarily complicates the matter of ratifying the list of heritage assets likely to be impacted.

12.7.3. Finally, the wider study area needs to be linked to the likely noise impacts which are not yet known. Consequently, the wider study area remains questionable.

12.8. Survey work

12.8.1. It is stated that archaeological field monitoring and walk over surveys have been undertaken and yet no further information has been provided. Withholding this information is unhelpful.

12.9. Assessment methodology for PEIR

12.9.1. This emphasises that the likely significant environmental effects are presented at this preliminary stage. More detailed assessment work will be undertaken between PEIR and the ES of the final DCO Project. Consequently, the methodology may develop further.

12.9.2. It is inappropriate to consult on the likely significant effects to heritage assets without providing sufficient data on the methodology, the receptors and the supporting evidence. The information contained in the PEIR is superficial, rendering it impossible to undertake a meaningful assessment of likely significant effects.

12.9.3. It is remiss of HAL to be asking for comments on conclusions whilst simultaneously withholding the necessary data to reach those conclusions.

12.9.4. This section then lays out the categories between direct and indirect effect, temporary or permanent, changes may be positive, neutral or negative and occur during construction and/or operation.

Significance evaluation methodology

12.9.5. The definition of significance in the ANPS is laid out in the categories of archaeological historic, architectural/aesthetic interest which is not contentious. However, heritage value as laid out in Conservation Principles, Policies and Guidance Historic England (2008) which is a vital document in assessing significance, also includes communal value. This derives from the meanings of a place for the people who relate to it or for whom it figures in their collective experience or memory. This may well overlap with the other values. Conservation Principles is a key document in assessing significance but is not specifically referred to in this section. In the section assessing significance are the following headings which it would be necessary for the ES to include in its methodology:

- Understand the fabric and evolution of the place;
- Identify who values the place and why;

- Relate identified heritage values to the fabric of the place;
- Consider the relative importance of those values;
- Consider the contribution of associated objects and collections;
- Consider the contribution made by setting and context;
- Compare the place with other place of similar values;
- Articulate the significance of the place.

12.9.6. The accompanying Table 13.11 describes Definition of heritage significance. This is not the same as stated above but a definition created by the PEIR. This table illustrates the superficiality of the work being undertaken.

12.9.7. The purpose of this stage should be to properly set out the value of the assets and assign significance to them. This would provide something meaningful to comment on.

12.9.8. As stated previously, there will be heritage assets that are made more sensitive by virtue of the demolition of so many assets in the area. The assessment methodology needs to adapt to these types of assets.

Magnitude of change

12.9.9. As set out above, the magnitude of change is just one element of the assessment. If the airport is currently having an adverse impact on a particular asset, whether directly or indirectly, then this needs to be reported. It is not appropriate simply to focus on the extent of change. If the proposal adds a small increase in harm to an asset already heavily impacted, then this should be reported accordingly. It should not be written off simply as a small change.

12.9.10. The approach to the assessment is set out as follows:

- The permanence of the effect (temporary or permanent);
- Physical changes caused by the effect (both positive and negative);
- The nature and extent of the heritage asset that would be affected;
- The overall effect of changes on the values and significance of the heritage asset (including its setting).

12.9.11. In order to assess the impact of change on the setting of heritage assets, the PEIR refers to Historic England's guidance document 'The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning: 3 (2017)'. However, it picks out only three aspects from this advice document which should be considered in addition to any identified key attributes.

12.9.12. These aspects include:

- physical surroundings of the asset, including its relationship with other assets;
- the way the asset is appreciated;
- the assets associations and patterns of use.

12.9.13. When The Setting of Heritage Assets is examined, it is clear that these criteria come from section 2 on how to assess the degree to which seeing and views make a contribution to the significance of the heritage asset. In fact, what needs to be used is section 3: Step 3 - Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it. There are four headings:

- Location and siting of development;
- Form and appearance of development;
- Wider effects of the development;
- Permanence of the development.

12.9.14. The approach to assessing significant effects therefore needs to be wider than presented in the methodology.

12.10. Assumptions and limitations of this PEIR

12.10.1. It is noted that baseline studies and modelling for noise data are still in progress. As stated above, it is not possible to ratify the extent of the wider study area until it is clear what the noise implications of expansion are.

12.10.2. It is also noted that the approach to noise relates to the magnitude of change which is inappropriate. The EIA should consider the likely significant effects. If a heritage asset is already subjected to harmful noise levels, then the degree of change is irrelevant.

12.10.3. The approach to noise impacts needs to be considered further once more details are provided.

12.11. Overall Baseline

Previous Studies

12.11.1. It is unclear why only archaeological information is presented in Appendix 13.1 as a previous study. Under the title 'previous studies', there is a subtitle 'Archaeology' but no others.

12.11.2. This lack of additional information on other heritage assets presents a void in the assessment baseline.

Historic Landscape Character

12.11.3. Although this is meant to be about the historic landscape character, it appears to solely concentrate on the more recent history of Heathrow Airport following Sir Patrick Abercrombie's advisory 1944 Greater London Plan. There is nothing predating this study. This needs to be expanded upon significantly to ensure that there is an appropriate understanding of the historic landscape long before a form of aerodrome was in the area.

12.12. Impacted Areas

12.12.1. The core study area is also subdivided between designated and non-designated heritage assets broadly by century with sections on built heritage, historic landscape and archaeology. There is a synopsis on the conservation area where relevant and a list of heritage assets with a very brief description and listing numbers. The wider study area follows a similar format.

12.12.2. The appendices of the list of heritage assets (appendix 13.1) are essentially the same just not arranged by century and without a description for the conservation area. Archaeology is dealt with in Appendix 13.2. The only additional material in this section is the historic landscape section and as before, appears to be overly focused on recent 20th century developments.

12.12.3. The wider study area focuses on the World Heritage sites and Registered Historic Parks, which while undoubtedly important, are quite limited in terms of the scale of the wider area. This is an area where planes will be consistently flying over and therefore subjecting many heritage assets to significant noise levels; these would include churches and cemeteries.

12.12.4. This section gives a summary of the heritage assets which is important and necessary but ultimately limited in providing any real understanding of the heritage assets or their significance.

12.13. Assessment of historic environment effects

12.13.1. The assessment year chosen is 2024 which covers Phase 1 (2022-2026) and Phase 2 (2026-2033). It is not clear why this is the chosen year, given the main construction impacts are spread in the early period and it is not clear that they would peak in 2024. Furthermore, in 2022 the early growth plans are predicted

to be in full operation, i.e. an increase in flights.

12.13.2. Phases 1 and 2 are also separated into operational effects which are only considered for the wider study area which is surprisingly not addressed in the context of the construction phases. It is therefore unclear as to what is assessed and when making it difficult to fully understand the conclusions reached.

12.13.3. Phase 3 also has both construction and operational activities (in 2035), with the assessment separated for the wider assessment area but unclearly applied to the core study area. Furthermore, if construction and operation occur simultaneously, then the assessment should consider the cumulative effects.

12.13.4. Ultimately, the approach to the assessment, and how it relates to phases, the study areas, construction and operation are muddled. Comments on the preliminary conclusions are therefore heavily qualified with the caveat that what is presented is unclear.

12.13.5. The lack of information on flight paths, and the true impacts of noise, makes it difficult to reach conclusions on significance at this stage. It is noted that many of the areas in Hillingdon, north of the M4 in particular, are not assessed against operational noise, congestion or a combination of factors.

12.13.6. It is not possible to rule out harm to heritage assets from operational noise at this stage. For example, there are churches and cemeteries in West Drayton that may be significantly affected by noise. The conclusions reached are therefore premature and not adequately evidenced. This is not reflected in the commentary against each area as this is uniform to the entire area. It is therefore not possible to support conclusions at this stage; bespoke comments on individual areas are provided where applicable.

12.13.7. Comments on archaeology will be dealt with through the GLAAS response.

12.14. Assessment of historic environment effects - Harmondsworth

12.14.1. The PEIR assessment that the change will be of high magnitude and will have a significant (negative) effect on all heritage assets in the core area is indisputable.

12.14.2. Approximately 60% of the conservation area will be demolished. This will include the grade II listed Harmondsworth Hall and The Grange and their neighbouring listed walls. It is also stated that it will include the locally listed walls to the south west of Harmondsworth Hall and Penguin Books Warehouse on Bath Road and non-designated school hall.

12.14.3. The assessment of the non-designated assets to be demolished is incomplete. The illustrative maps in the Harmondsworth specific document show the airport boundary behind the high street. This would suggest that the locally listed Old School House, 1 Moor lane and 27-29 Moor Lane will all be demolished. The locally listed Home Farm buildings on Hatch Lane will be partially demolished. The list is therefore inaccurate.

12.14.4. The loss of Harmondsworth Hall and The Grange and their walls are particularly concerning as these are extremely grand and elegant houses that are part of the historic core of the village and contribute greatly to the character and appearance of the conservation area. They are situated only a few metres behind the High Street, Harmondsworth Hall being closer than The Grange, and they are key buildings in the historic core.

12.14.5. The PEIR recognises that the moving of the Bath Road (A4) from the south of the village in a loop to the north of the village will remove the spatial relationship between the historic settlement and arterial road. This is indisputable. However, there is no mention of the moving of the Duke of Northumberland's river which is to the west of the village and can be regarded as part of the setting of the barn and conservation area.

12.14.6. The PEIR argues that 95ha of the total 203ha is considered to have a moderate to high archaeological potential. This seems quite low for such an ancient historic settlement. More information on the proposed earthworks will be given in the ES and should be carefully scrutinised.

12.14.7. As far as the wider study core area is concerned, based on the criteria laid out above, only the Church of St Mary will be assessed and affected. It is argued that the change will be medium and the effect significant (negative). The idea that only the church will be affected by the operational noise of the project is plainly inaccurate. All of the surviving heritage assets will be affected and the ES should set out clearly what the impacts will be.

12.14.8. Given these properties are in the wider compensation zone, there is clearly a concern that they be vacated and then deemed inhabitable. The long term prospect of these assets, particularly the residential units, is highly questionable. Without people, this area then becomes sterilised. This has not been addressed but needs to be.

12.14.9. The PEIR is limited in aiding understanding of the proposal and therefore the impact. The Harmondsworth document gives a much clearer idea of the

masterplan for the village and it's environment and therefore the potential impact on the setting. The key changes are the demolition of 2/3 of homes within the village, the closing of Hatch Lane, diversion of the A4 to the North and moving of the Moor Lane allotments. To mitigate impact, the A4 may be single lane, access to Harmondsworth Moor will be improved and the Green Loop will connect the village.

Harmondsworth Barn

12.14.10. Page 10 shows a proposed visual of Harmondsworth Barn and visitor centre which appear to be rather urban in character. It is important that this should preserve the rustic qualities of the original farmyard. To the north of the barn, the existing open space will be enhanced moorland up to the new A4, whereas at the moment it extends to the Saxon Lake. The enhancement will not offset the diminishment in size or character due to the road.

12.14.11. There is no certainty that what is presented within the HAL consultation documentation is feasible. Should the residents leave the area through a high take up of the wider property compensation offer, then there will be significant question marks about the feasibility of a visitor centre in what is left. Furthermore, once accurate noise data is provided then an assessment of the impacts on the location of the barn can be carried out. Again, this noise impact alone may be too great to warrant a visitor centre in this location.

12.14.12. Another area of concern is the use of the A4. No traffic data has yet been provided, giving no indication of the usage of this road to the north of the village. If this is heavily congested, then combined with the wall structure to the south of the village, this could have the effect of constraining the feasibility of the visitor centre.

12.14.13. Finally as stated elsewhere, the DCO proposal presented so far is not a fair and honest representation of the future of Heathrow Airport and all its surrounding land uses. If the new A4 replicates the current road corridor, then the peaceful and green environment presented on the plans becomes illusory with a realistic future being a great swathe of hotels, restaurants, offices and light industrial uses.

Noise Wall

12.14.14. A noise wall of between 3 and 5 metres with bunds and planting will skirt the airport boundary. The impact of this will be extraordinarily damaging to the

setting of the heritage assets, irrespective of the design and planting.

12.14.15. Harlington will be particularly affected by the construction of earthworks to the north of Harmondsworth Lane and excavation pits to the south. This will have an enormous impact on the area which will peak between 2023 and 2024. By 2026, this will be complete and the areas reinstated. It is stated that related traffic will access it from the M4 rather than the village. Whilst not permanent, the impact will be huge while in process.

12.14.16. The document states that construction traffic will initially use the local road network which is alarming. It won't use the High Street but might occasionally to allow delivery of local materials. The potential for harm to the historic environment if construction traffic uses the High Street would be high. It was never developed to accommodate large construction vehicles and is a wholly inappropriate artery for construction traffic. This must be reconsidered in line with the supposed principles governing heritage protection.

Bath Road

12.14.17. The A4 or Bath Road is an important historic road linking London and Bristol, taking its name from Bath when the town became fashionable. The villages along it developed in part due to the passing traffic and trade. To erase it is to erase the historic link between the villages which no Green Loop will mitigate. The proposed new road will directly impact the setting of the heritage assets north of the High Street bringing traffic noise closer. It will be raised in places although it is not clear if it is at this point. If it is raised close to the village, its impact will only be greater.

Noise

12.14.18. There is currently no noise overhead at Harmondsworth but there will be if the project goes ahead. It is acknowledged that homes close to the boundary will experience high levels of noise which implies more heritage assets will be affected than the only one to be assessed, the church. Regardless of the direct impact of noise which needs to be assessed, some of these heritage assets are residential properties. This will be particularly challenging for the historic buildings affected as it is likely to alter their character in a negative manner.

Presentation of Material

12.14.19. Whilst this document is helpful, much clearer maps will be needed and not artistic impressions to indicate the exact location of the airport boundary. There

is no mention of the covered thermal pond and water treatment centre and electricity station seen on the larger masterplan document that will be sited to the north and north-west of the village.

Conclusion

12.14.20. The demolition of two thirds of the conservation area of Harmondsworth and the listed buildings within that area is a travesty for the heritage of Hillingdon. NPPF 193 highlights that heritage is an irreplaceable resource and the large parts of Harmondsworth conservation area would be irreversible. The NPPF 194 makes it clear that the loss of any heritage asset should require clear and convincing justification and that the loss of Grade II buildings should be exceptional and Grade I and II* buildings should be wholly exceptional. Where a development will lead to substantial harm (which would be the case in demolition), it should be refused unless the harm is necessary in order to achieve public benefits.

12.14.21. The public benefits of the need for expansion are vague and forever changing. It is notable that this consultation presents a far less ambitious scheme at a local level (30,000 jobs) compared to the NPS (up to 114,000).

12.14.22. There is also a distinct lack of engagement as to how Harmondsworth will continue to function given a myriad of risks; people moving out; a congested A4; additional noise; a highly secure perimeter metres from the boundary.

12.14.23. Finally, it is not at all clear how the supposed embedded mitigation principles have been applied. The impacts in Harmondsworth demonstrate these principles were an afterthought that has had no bearing on the development of the designs.

12.15. Assessment of historic environment effects - Sipson

12.15.1. This is not a conservation area and only has a handful of listed and locally listed buildings. These are Lanz Farm and King William Public House which are Grade II and The Plough and the former Baptist Church are locally listed. The Plough appears to have been forgotten on the earlier list in section 13.9; instead the Three Magpies on the Bath Road is mentioned. In addition, the locally listed Former Cottage Hospital, now Sant Nirankari Bhawan, and the Grade II listed Monument at General Roy's Survey Base should be included in this section. The historic landscape is described as the same as Harmondsworth.

12.15.2. For phase I and 2, it is stated that there are no direct effects. It is argued that the

change to the listed buildings will be medium and the effect significant (negative) while that on the non-designated heritage assets and historic landscape assets is given as medium with a potentially significant effect. The impact on the archaeological heritage assets is high with significant (negative) effects; this is due in large part to the impact of the earthworks to the west.

12.15.3. The section on the impact of phase 3 focuses on the impact of the Northern Parkway and the development of large block like buildings near the M4. While it is acknowledged that these will affect the setting of heritage assets and will be inter-visible in medium distance views, it is concluded that the change is negligible and the impact not significant. This seems to be an inaccurate assessment as the PEIR has already acknowledged the effect on setting in the same section.

12.15.4. Buildings close to the existing Holiday Inn will have less impact but the Northern Parkway will be on undeveloped land so there will clearly be a greater than negligible change and it will permanently alter the setting away from the village of the former cottage hospital which will be dwarfed in scale by the proposed building.

12.15.5. The major impacts to the village are the re-routing of the A4 to the north turning south east of the village to link to the original Bath Road and the creation of a new junction with the M4. Further impacts will come from the creation of the Northern Parkway, a multi-storey car park north of Sipson Lane, and the commercial developments to the south by the Emirates roundabout and next to the existing Holiday Inn near the M4. There will also be the same construction impacts from the earthworks to the north and south of Sipson Lane which lie to the west of the village as there are on Harmondsworth.

12.15.6. As far as the village document is concerned, the accompanying map makes it quite hard to understand the impact on the locally listed The Plough and the Grade II listed Monument at General Roy's Survey base. These really must be preserved with proposed development to be designed around them. For the ES, much clearer maps will be needed for before and after. The consultation states that the Sant Nirankar Bhawan Centre will be avoided in the Northern Parkway development. New hotels will be needed that have been displaced by the proposal.

12.15.7. The maps also suggest a serious reduction in green open space to the west of the village that will not be offset by the relocation of green space to the east of the northern parkway. This is not a conservation area but the proposal will

impact on the setting of the two listed buildings. The proposed airport boundary of up to 7 metres will pass directly behind Lanz Farm, thereby divorcing it from its green open setting that it currently enjoys. The impact on the King William Pub will only be slightly less.

12.15.8. The construction impacts are similar to Harmondsworth. The air quality may be affected by dust and odours during construction and the smell of petrol may be felt when operational. It is not stated what effect this might have.

Conclusion

12.15.9. Without sufficient evidence, the Council cannot support the conclusions. The operational and construction impacts have not been set out sufficiently to enable any sort of assessment to be made at this stage.

12.16. Assessment of historic environment effects - Harlington

12.16.1. This is a conservation area with nine listed buildings and two locally listed buildings within it. There are a further four listed buildings outside the conservation area to the south.

12.16.2. The consultation states that there will be no direct impact although the project "may" affect the character of the conservation area and the setting of the listed buildings. At ES stage, it should be made clearer that the setting of the conservation area should also be a consideration in line with NPPF 190. It is concluded in the consultation that the level of change is medium and the impact significant (negative).

12.16.3. The particular impacts are on the Northern Parkway and A4 link road to the west of the village and the impact of construction and operational noise. Page 12 of the village document states that the 'quality of the heritage buildings and areas such as Cranford Park and the Harlington Conservation Area' have been assessed yet no further information has been provided.

12.16.4. There will be a major change to noise levels. At the moment, there are no overhead flights but once operational there would be. It is therefore surprising that in the phase 3 assessment, the impact is found to be not significant on all heritage assets.

12.16.5. The impact on Harlington during construction may be less than for Sipson or Harmondsworth but far greater detail is needed to reach that conclusion. The long term impact of the DCO project, once operational, would be highly

detrimental to the conservation area and settings of the designated asset.

12.17. Assessment of historic environment effects - Cranford

12.17.1. Only the western half of the Cranford Park conservation area lies within the borough of Hillingdon. Cranford Park is the surviving part of an historic country estate of Cranford Park; the house, stables, cellars, bridge and associated garden walls are listed Grade II, the Church of St Dunstan Grade II* and much of the former landscaping and historic structures have survived.

12.17.2. The major changes to the area would be the extension to Cranford Park to the west and the removal of land at the southern end of the Park for the green loop. It is suggested that the change is low and the impact significantly positive on the built heritage, it is presumed because of the extension to the park and the creation of the loop.

12.17.3. Firstly, an extension to Cranford Park would have implications for the Council as regards its conversion, integration and ongoing management and maintenance. This would be an additional concern. Secondly, the proposed Loop would conflict with the proposals for the Park, supported by the Council and key stakeholders.

12.17.4. The Round II Bid to the National Heritage Lottery Fund is currently in development stage and, if successful, the improved facilities and investment in place by 2021, will have greatly increased the visitor numbers.

12.17.5. It is therefore strongly contested that any extension to Cranford Park, or the creation of a Loop, could be considered mitigating factors to the additional noise likely to be experienced by Park Visitors.

12.17.6. The full extent of the project and its impacts needs to be disclosed prior to reaching conclusions on the effects. Given that work on transport, noise, contaminated land, construction impacts, lorry routes, and air quality is ongoing it is difficult to see how any firm conclusions can be reached.

12.18. Assessment of historic environment effects - Longford

12.18.1. The conservation area of Longford and all its designated and non-designated heritage assets, historic landscape and archaeology will be demolished to make way for the proposed runway. This entails the demolition of eleven listed buildings and three locally listed buildings. In light of this, unsurprisingly, the change is assessed to be high and the impact significant/negative.

12.18.2. It is stated that further consideration will be given to the potential re-use of historic fabric and architectural features ahead of demolition although not at this stage. More information is also needed on the recording of these buildings although it is stated that archaeological research outputs will be achieved through intrusive investigations and recording. The potential for reuse of buildings needs to be in the ES so that it is absolutely clear what is proposed.

12.18.3. The document dedicated to Longford and the Bath Road is pitifully short in comparison to those of the other villages. It focuses mainly on the compulsory purchase of the land and buildings. There is little or no discussion of the proposed harm.

12.18.4. The loss of Longford would be a travesty for the heritage of Hillingdon. The Longford conservation area and the heritage assets within are the most significantly affected heritage assets in Hillingdon, if the DCO project is approved.

12.18.5. Given this highly sensitive harm and emotive subject, the Council would have expected HAL to have presented more meaningful plans than the pervasive statement:

> *"In accordance with the historic environment principles further consideration will be given to potential re-use of historic fabric and architectural features ahead of demolition, but for the purposes of the PEIR, the assets are treated as lost".*

12.18.6. The heritage protection principles are supposed to be embedded design measures informing the development of the project. This statement effectively dismisses that notion.

12.18.7. HAL should undertake a meaningful assessment of Longford and what can be re-located, re-used or retained. It is far from appropriate to simply write off the heritage value of this village. The lack of willingness to take positive action demonstrates a more accurate representation of the role of heritage protection in this project.

12.19. Preliminary assessment of significance

12.19.1. The assessment of significance is presented in tabulated form with the addition of a column on 'opportunities for additional measures'. Most of these measures have been addressed elsewhere. However, the following are of note.

12.19.2. The Old Stores in Harmondsworth will have its chimney shortened due to exceeding Obstacle Limitation Surface (OLS) height restrictions if the airport is approved. This seems odd and probably unnecessary when the church opposite is so much taller and will not be reduced in height. It is also noted that a potential requirement to demolish the Old School House and 1 Moor Lane, Finesplice on Summerhouse Lane and the School Hall also due to height requirements; once again, they are in close proximity to the church.

12.19.3. For Longford there is a simple comment "Additional measures cannot address the total loss resulting from runway construction". This is completely unacceptable.

12.20. Next Steps

12.20.1. Information on likely earthwork effects will be developed in preparation of dialogue with Historic England (GLAAS) and local planning archaeological advisers (Surrey County Council, Buckinghamshire County Council and West Berkshire Archaeology). Updates will be undertaken in collaboration with Historic England so that all ES baseline data recognises all relevant heritage assets and includes an accurate description of their significance.

12.20.2. All of this is valuable and of great interest but some of it would have been useful at an earlier stage.

12.21. Conclusion

12.21.1. The key word for this document is that it is <u>preliminary</u>. There is so much more information that is needed at all sorts of levels for the ES, both in terms of the historic environment as well as the DCO project itself, in order to understand the impact of the proposals.

12.21.2. From the information that is given here, it is Hillingdon's view that the direct impact of the proposals as they stand in the PEIR, on the heritage assets of the borough are wholly unacceptable. The demolition of one conservation area and two thirds of another with the demolition of multiple listed buildings and locally listed buildings, destruction of the surrounding historic landscapes and large areas of archaeology and the moving of the historic A4 and Duke of Northumberland's river cannot under any circumstances be supported. The greatest impact will be on Longford followed by Harmondsworth and Sipson with Harlington and Cranford impacted to a lesser degree. These villages will be altered forever and the viability of their listed buildings thrown permanently into

doubt by the drastic change to their settings. The PEIR Historic Environment Report has made absolutely no case for the public benefit, as required by NPPF, which might outweigh the exceptional impact of what is proposed. This work should come before the decision to finalise the project.

12.21.3. Much of the PEIR document concerns methodology and while clearly important, it should not be used as a substitute for facts. There is a lot of emphasis on process rather than product. At the next ES stage it is imperative that all the studies that are touched on within the document are comprehensively provided. This should include noise assessment, proposals on moving heritage assets, proposals to install noise insulation, accurate maps clearly identifying which assets will be demolished, information on earthworks, survey work for archaeology and built heritage assets, the response to the scoping report which surprisingly is not included in the PEIR. Much of the proposed embedded measures sound well-meaning but there is very little detail regarding any of them.

12.21.4. The strategic framework, namely the Heritage Management Strategy, Heritage Design Strategy, Heritage Interpretation Strategy and the Historic Environment research Framework appear numerous times in the documentation but there is next to no detail on any of them. To understand how they might mitigate the proposal, they will have to be fully developed at ES stage.

12.21.5. The methodology for collecting data is superficial. It is an exercise that is necessary but in most cases reveals next to nothing about the heritage assets; there is particular concern surrounding “significance”, the key concept to understanding a heritage asset’s value (NPPG). The definitions of this are vague in the PEIR as witnessed by the statement that the Listed Buildings and Conservation Areas Act 1990 will assist understanding of significance. This is absolutely vital in order to understand the value of the heritage asset and therefore the impact that the proposal might have. The production of lists of heritage assets, as in the PEIR, is an important exercise in establishing the parameters of the resource but it will not produce an understanding of significance. This was one of the points made by the Council in response to the Scoping report. The Historic England list descriptions will not be sufficient in most cases to understand significance; additional research is needed which as a bare minimum, should include consulting the H.E.R. records. The Historic England guidance documents Conservation Principles, Policies and Guidance Historic England (2008) section 3 should be carefully followed to assess significance and should include the concept of communal value.

12.21.6. For the assessment of the proposal on the setting of Heritage Assets the PEIR methodology is too limited, focusing solely on the way that seeing and views affect setting. The setting of Heritage Assets: Historic Environment Good Practice Advice in Planning 3 (2017) should be used, in particular Section 3 Step 3 which is more nuanced.

12.21.7. The inclusion of non-designated assets in the PEIR is welcomed and in-line with Hillingdon's comments on the Scoping Report. However, it has been noted, with respect to Sipson and may have occurred elsewhere, that the lists aren't always complete with regard to local listings. For Hillingdon, this information is readily available on the Heritage Asset Map on the Borough's website.

12.21.8. For the overall baseline, the sections of Historic Landscape Character always appear to overly focus on twentieth century developments which undoubtedly have a value but should not be overly focused on at the expense of the earlier historic landscape.

12.21.9. The methodology for the wider area is of concern. The focus on category A and C (Temple 2014) for noise assessment is too narrow but to include categories B and D would still not cover most domestic heritage assets.

12.21.10. With regard to the villages, more information is needed on the flood storage area at Cowley. There is a lack of clarity with regard to which listed and locally listed buildings will be demolished to the south of Harmondsworth conservation area. Harmondsworth Hall and the Grange and their surrounding walls on Summerhouse Lane should not be demolished under any circumstances and the boundary line should be reconsidered. More clarity is needed on the design of the Northern Parkway and the hotel developments north and south of Sipson as well as next to the Technical Block A within Heathrow Airport. Without a clearer design showing the scale and massing, the full impact of what is proposed cannot be understood. It is not entirely clear if The Plough at Sipson or the Monument at General Roy's Survey base will survive. Again, more detailed maps showing exactly what is to be demolished would assist.

13. Water Environment

13.1. Overview

13.1.1. The Council is the Lead Local Flood Authority (LLFA) for which most of the expansion project will be located. The documentation relating to the water environment amounts to over 2500 pages and covers 22 documents. None of this information has been provided to the Council prior to the consultation. Moreover, no data files have been provided to make this a more efficient process to manage.

13.1.2. As the Lead Local Flood Authority, the Council has a wide ranging statutory remit in relation to flood risk management. It is noted that HAL has discussed flood risk matters with both the Environment Agency and the Heathrow Spatial Planning Group. Neither of these are suitable proxies for the Lead Local Flood Authority. Furthermore, experience from HS2 has shown that reliance on the Environment Agency as the sole source of assistance and advice on flood risk ends in matters being inadequately addressed or omitted entirely.

13.1.3. The Council works together with the Environment Agency and other water bodies and collectively manages the water environment. There are clear delineations of responsibility and therefore the comments below primarily reflect the Council's role which would not be within the remit of any other agency or body.

13.1.4. Consequently, providing such a huge abundance of documentation to comment on in such a short space of time is inappropriate. Nonetheless, the Council will set out its comments as follows.

Monitoring and Surveys

13.1.5. The initial timeline is far too ambitious and does not allow for appropriate monitoring and analysis to provide a robust understanding of complex issues in order to determine the right mitigation in the right location.

13.1.6. Table 21.13 in PEIR Volume 1 Chapter 21 sets out the baseline monitoring that has been undertaken to date, as well as the frequency for future monitoring. The Inspector's Scoping Opinion states that, "Effort should be made to agree the detailed scope of surveys with the relevant consultation bodies e.g. Environment Agency and Lead Local Flood Authorities." The Council has not been consulted as

part of the PEIR process to confirm specific requirements for surveys and monitoring of ordinary watercourses and local flood risk as required in the Scoping Opinion. The monitoring programme should be agreed with all stakeholders to set the locations, types and frequency as well as the method of environmental monitoring.

13.1.7. There is extremely limited data provided in the PEIR that has been collected at the baseline monitoring locations. The Council has concerns about the transparency of this information, as well as the availability of monitoring data before construction, during construction and during operation of the expanded Heathrow. The data should be made readily available to statutory regulators, using a web platform, to increase transparency and reduce reliance on data requests. This platform should be used for all environmental monitoring disciplines (air quality, noise, contaminated land), include both discrete and continuous data, and include back-dated records from when monitoring commenced.

13.1.8. The Council also has concerns over the omission of flow and level monitoring on some ordinary watercourses and main rivers that could be directly impacted from the DCO Project. Specifically, further level and flow monitors are required on the Bigley Ditch to the immediate north of the M4, as well as on the Frog's Ditch, which is spring fed and is therefore sensitive to changes in local groundwater levels. Further locations may be recommended by the Council following a detailed review of the proposed monitoring provision.

13.1.9. PEIR Volume 2 Figure 14.3 identifies the locations of baseline groundwater monitoring; however, this does not include monitoring of groundwater levels outside the draft DCO boundary. Information needs to be collected in the area external to the proposed works to ensure that any impact the DCO project is having can be effectively monitored. It is also essential to monitor locations that will not be directly affected by the DCO project works but are adjacent to activities that are expected to impact groundwater and adjacent to receptors (e.g. in the retained part of Harmondsworth village). It is currently unclear which monitoring locations (both groundwater and surface water) will be permanently maintained during construction and operation and which are to provide initial baseline information prior to construction.

13.1.10. The Council has an obligation under the Flood and Water Management Act 2010 to maintain a register of assets in the Borough. Detailed surveys of assets and other structures (such as channel cross sections, culverts, bridges, headwalls, screens, pumping stations) should be shared with the Council to ensure

compliance with statutory duties. This includes information about the current condition of assets, as well as details on ownership. A format for providing this information should be agreed in advance with the Council to ensure that it meets metadata requirements of the Asset Register.

Presentation of Material

13.1.11. Section 3.3 of the Scoping Opinion issued by PINS states:

> *"The Applicant is reminded that the information contained in the ES should be clearly legible and accessible to readers".*

13.1.12. The layout of the PEIR is such that important components of the assessment are located in impenetrable appendices. One of the most important legislative issues related to flood risk management is the application of the sequential test. The NPPF requires development proposals in areas at risk of flooding to apply the sequential test and the need for this test was reinforced in the Airports NPS. For such a significant issue for the risk of flooding, the Sequential Test assessment is located in Section 2 of Annex A of Appendix 21.4 of Chapter 21 of Volume 3 of the PEIR.

13.1.13. This is considered to be an unreasonable location for an item specifically raised in the NPS and is contrary to the recommendations of the Inspector's Scoping Opinion. The information on the water environment covers 22 documents and therefore cannot be said to be easily accessible or navigable. In addition, the maps used in the Figures Volume are of such a poor scale and resolution that they cannot be interrogated properly making them palpably not legible.

13.1.14. This project is one of the largest development schemes in the UK. It is expected that HAL would have presented their PEIR material in a method that was creative, engaging, interactive and that makes use of digital advances in technology.

13.1.15. HAL must utilise current best practice when presenting information for the subsequent DCO application to allow for the appropriate scrutiny of a project. One example of a recent innovative way of presenting an EIA for a significant infrastructure project is the digital Highways England EIA for the A303 at Stonehenge (accessible at: https://highwaysengland.co.uk/a303-stonehenge-library/).

13.2. Draft Code of Construction Practice, Water Environment Plan and Flood Management Plan

Enabling Works

13.2.1. The draft code of practice appears to only reference “main contractors” and does not cover any other enabling works or other contractors to ensure that they meet the same standards.

13.2.2. There appears to be no overview of these additional enabling works or the requirement for a strategic overview to manage the combined effects during construction on the water environment. Lessons need to be learned from other national infrastructure projects such as HS2 where there have been extensive enabling works that have been poorly managed and have led to considerable disruption to residents and highway users through multiple road closures. There is a need to understand the scale of the necessary enabling works at DCO stage, including those works in the DCO boundary, wherever possible, and an assessment of the environmental impact should be carried out accordingly.

Storage of fuels and chemicals

13.2.3. The CoCP states:

> *"fuel and chemical storage will be located in Flood Zone 1".*

13.2.4. Flood zone 1 is designated because of the low risk of river flooding. However, being in flood zone 1 does not mean that there is a low risk from all sources of flooding. This is an example of where liaison with the Environment Agency (who has a remit for pollution control and river flooding) satisfies part of the issue. The Council would advise that sites susceptible to other forms of flood risk (surface water and groundwater for example) are treated in the same way flood zones 2 and 3 and therefore not locations for storage of polluting substances.

13.2.5. The Council can only assist on this matter once full details of the surface regime and groundwater flood risk is presented.

Drainage during Construction

13.2.6. It is acknowledged that the consultation material states:

> *"...dedicated temporary construction site surface water drainage systems including sustainable drainage systems (SuDS)".*

13.2.7. This is welcomed to a degree but the detail will need to be provided within the

'Water Environment Plan' at DCO stage; this should clearly set out the level of detail that will be provided to LLFA for each drainage submission, as well as the requirements for any consents.

Water Environment Plan

13.2.8. It is welcomed that stakeholders, including the Council as Lead Local Flood Authority, will be consulted with respect to the different elements of the Water Environment Plan prior to its submission at DCO application stage.

13.2.9. In contrast to the Water Environment Plan, it is unclear whether the Flood Management Plans will be produced prior to the DCO application. The Council acknowledges that all sources of flooding will be considered in producing the Flood Management Plans; however, leaving this until the DCO stage would be particularly risky given no information has been shared ahead of this consultation which itself is hampered by the non disclosure of information.

13.2.10. It is recommended that an integrated assessment of multiple flood sources be considered as there will be interactions between each source of flooding. To take this matter further, it would be advisable to consider a whole water cycle that includes all elements of water management i.e. pollution control, water collection and re-use, sustainable drainage, flood risk management, retaining water within the landscape, and grey water recycling.

13.3. Stakeholder Consultation

13.3.1. Table 21.4 in Volume 1, Chapter 21 sets out the consultations that have been carried out for the Water Environment chapter of the PEIR. The Council considers that the responses of public bodies (such as the Environment Agency and Natural England) throughout the PEIR and DCO EIA process should be transparent and provided alongside each stage of assessment. Volume 1 Chapter 21 states that the HSPG was consulted on, “the approach to the design of the water environment and on the approach to surface water drainage assessment, in their role as Lead Local Flood Authorities (LLFAs)”; however, the HSPG does not contain representatives of all LLFA and is not the responsible body for where the majority of the works will be located.

13.4. River Diversions and Covered River Corridor

13.4.1. The DCO project will permanently remove significant lengths of watercourse within the Colne valley. PEIR Volume 1 Chapter 4 Section 4.4.22 states:

"The Site located to the west lies within the catchment of the River Colne, with the River Colne flowing partially within the Site; the river flows in a southerly direction, joining the River Thames at Staines".

13.4.2. This language diminishes the importance of the entire ecosystem of the River Colne and its upstream catchment on the DCO project. While it is acknowledged that this is only a brief description in a chapter describing all of the topographic features in and around the site, the description of the River Colne and its associated channels in the Colne valley should accurately state the criticality of the water environment in the vicinity of the site.

13.4.3. The Duke of Northumberland River and the Longford River are also affected by the DCO project, including another diversion of the Twin River, itself a diversion that was undertaken by BAA for the Terminal 5 development. PEIR Volume 1, Chapter 4 Section 4.4.22 states that:

"The rivers flow within artificial channels aligned with the perimeter road, crossing under the road close to Stanwell before separating at East Bedfont, to the south of the Airport".

13.4.4. This description does not provide adequate weight to the cumulative historic alterations of the watercourses in the catchment, such as for T5, the M4, M25, and multiple road crossings. These proposals compound issues raised previously with the Twin Rivers diversion for T5 and environmental mitigation that were implemented as part of the diversion of these watercourses following the public inquiry.

13.4.5. It is essential that the EIA, at DCO stage, assesses the cumulative impact of removing the environmental mitigation placed in the Duke of Northumberland River and the Longford River that was required to make the construction of Terminal 5 environmentally acceptable.

13.4.6. The total length of watercourse (including all main rivers and ordinary watercourses) that will be removed as part of the DCO Project is unclear. This is an important statistic as it sets the quantum of impact and mitigation required. The Preliminary WFD Assessment (PEIR Volume 3 Appendix 21.3) uses OS Mapping 1:50,000 as a baseline for the watercourses to be assessed.

13.4.7. Graphic 6.8 of the Project Description attempts to map the impacts on watercourses but fails to provide a coherent plant. It references 4 rivers, but fails to consider a fifth, the Bigley Ditch, and there is no reference to ordinary watercourses or other drainage channels.

13.4.8. The project will effectively filter at least 5 main rivers into a covered river corridor and the PEIR provides insufficient information on the consequences of this action in terms of flows, outfalls and any other discharges to be impacted.

13.4.9. The Council website identifies the known ordinary watercourses in the area and there are ordinary watercourses that have not been considered in the current assessment. There are also significant differences in the presentation of watercourses in Figures in the PEIR where some figures do not show ordinary watercourses. This is contrary to Item ID28 in the Inspector's Scoping Opinion (June 2018) which states that:

> *"Any open water assessed in the ES should be clearly identified and classified by type".*

13.4.10. When setting out the summary of significant effects on the Water Environment, the PEIR Non Technical Summary diverges from the previous convention in an attempt to reduce the significance of the impacts on the Water Environment. Rather than stating the significant effects, the report states that:

> *"The majority of effects are concluded to be not significant, but some significant effects have been identified".*

13.4.11. In a Non Technical Summary, this diminishes the potential importance of the significant effects on the Water Environment, particularly where there will be significant cumulative negative effects, the available mitigation measures are limited and their effectiveness is uncertain.

13.4.12. Decisions made before the submission of the PEIR (such as not selecting Option 3 for the diversion of the M25 in the DCO project Alternatives Chapter 3) have resulted in the diverted rivers being contained in a narrow strip of land between the realigned M25 to the west and the new taxiways to the east. This is further compounded by the inclusion of highway runoff attenuation and flood storage areas in the remaining land between the rivers and the realigned M25. The need for adequate riparian habitat and land for environmental mitigation adjacent to the diverted channels should be given greater weight when setting the DCO boundary.

13.4.13. The PEIR Non Technical Summary states that:

> *"the Covered River Corridor would be monitored for ongoing assessment of the effectiveness of the design, and the lighting would be adapted if necessary".*

13.4.14. Ongoing monitoring is not considered to be a robust 'additional measure' in the assessment process when considering the potential negative impacts on the river corridor. The potential for irrevocable harm on the whole riverine ecosystem, as well as impacts on the hydrology of the watercourses, cannot be dealt with through post completion monitoring and retrospective adjustment. Monitoring must be in place before the start of the project (and over a substantial cycle to capture natural variations) in order to accurately compare before, during and after. Monitoring of the Covered River Corridor should not just be focussed on changes to lighting but for all aspects of water management for example, air quality, noise, pollution and changes to ecological connectivity as these will impact the habitat in the Covered River Corridor.

13.4.15. Notwithstanding the Covered River Corridor, there are numerous other structures that will cross the diverted rivers that will permanently alter the watercourses. These include a significant structure for the diverted Bath Road, a considerable diversion of both rivers beneath the roundabout to the east of the realigned M25 at Junction 14, and the construction of a crossing of both rivers beneath the A3113. The cumulative impact of these multiple crossings, as well as the noise and air quality impacts on the available habitats throughout the diverted length, has not been given enough weight in the assessment of effects.

13.4.16. One of the fundamental concerns with the current proposal is the time allocated to the sequence of events prior to opening i.e. the diversion of the M25, the relocation of the diverted rivers, and the establishment of native habitats in the watercourses before the flow in the current rivers is transferred to the diverted channels. The Preliminary WFD Assessment (PEIR Volume 3 Appendix 21.3) states that:

> *"there is a risk that this will not be fully established within three years, and there will be safety restrictions to the plant types and sizes that can be introduced to prevent bird strike risks".*

13.4.17. As the existing rivers are located beneath the proposed runway which is due to be completed by 2026, and HAL's own assessment acknowledges that the timescales are likely to be undeliverable, the consequence will either be delays to the overall programme or the diversion of the watercourses before adequate habitats have been established.

13.4.18. Assuming HAL sacrifices the ecological benefits to speed up delivery of the project, there is still a lack of credibility about this sequence of events. Consequently, a much clearer programme of construction should be provided

broken down into charts for each activity.

13.4.19. The fact that this level of detail is still absent provides no certainty that this PEIR is based on a realistic representation of the project.

13.4.20. The PEIR Non Technical Summary states that:

> *"Additional measures will be developed and included within the ES and our application for development consent. These measures will include a programme of river improvements in the wider catchment, in order to address the significant negative effects on the rivers".*

13.4.21. This is assumed to be a reference to the River Colne and River Crane Green Infrastructure Strategy. The insinuation that upstream river improvements could be used to mitigate for such a significant negative impact is misleading in this context.

13.4.22. No river improvements upstream could mitigate for the potential loss of upstream migration by spawning fish as a result of the Covered River Corridor. The information at this higher level stage has not provided even simple information such as the length of watercourse that needs to be created to deliver net gain in the catchment. There is no feasibility study of this additional work and certainly no clarity as to how mitigation can be provided in time given the extremely ambitious and rapid construction programme.

13.4.23. Furthermore, it is not immediately obvious that the land take for this additional mitigation is included within the DCO. Only the DCO can provide the necessary compulsory purchase powers in an expedited manner.

13.4.24. The PEIR Non Technical Summary reports significant negative effects on semi-natural woodland habitat, standing water, pointed stonewort, fish species, bats and otters due to changes in hydrology. Neither of the hydraulic modelling reports associated with Chapter 21 (Appendix 21.7 and Appendix 21.8) have undertaken a thorough hydrological analysis to determine the anticipated changes to the hydrological inflows in the Colne valley. Of particular importance is the interaction with groundwater along the diverted river channels to maintain base flows, as well as changes to the intervening catchments and inflows along the length of the diverted rivers. The information is therefore not sufficient for this stage of assessment to determine whether environmental measures that can be embedded in the current design would be sufficient to minimise these impacts.

13.4.25. The WFD includes an obligation to prevent deterioration in the overall status of water bodies; this is referred to as 'no deterioration'. The information submitted in the PEIR indicates a potential deterioration in 4 WFD waterbodies.

13.4.26. This is due to the extent of hydromorphological impact associated with the DCO Project, most notably relating to the modification of the watercourse network around Heathrow, and the subsequent predicted impacts on riverine ecology. At this stage, compliance with the WFD is questionable. Further work will therefore need to be undertaken as part of the DCO application.

13.4.27. Furthermore, the Preliminary WFD Assessment does not assess the cumulative impact on the River Colne from HS2 Phase 1, another national infrastructure project that is scheduled to be delivered at the same time on the same waterbody.

13.5. Assessment of Fluvial Effects

13.5.1. The assessment of fluvial effects has been carried out by comparing the peak flood depths for the baseline and with development hydraulic model scenarios. No consideration has been given to changes in the duration of flooding for residents at risk of flooding as shown in flood hydrographs. This is of particular concern to residents within the floodplain to the immediate north of the M4 which are entirely surrounded by the draft DCO boundary.

13.5.2. Some mitigation measures listed in Table 4.1 of Annex A are not considered to be deliverable Environment Measures, for example elevating roads on stilts in the north of DZ Subzone K2 to mitigate for loss of flood storage is unlikely to be feasible. The conclusion, therefore, that the Exception Test can be passed with the embedded environmental measures is not accurate at this stage of the assessment. While it is acknowledged that the modelling undertaken for the PEIR is not based on the latest scheme, it is important that the impacts are accurately reported at all stages of the assessment.

13.6. Sequential Test

13.6.1. Other than the aforementioned location of the Sequential Test assessment, the PEIR has not actually included a sequential test assessment for the proposed DCO project as it has been assumed that “the Sequential Test is passed for core airside development elements… by virtue of flood risk having been considered as part of the Airports Commission site selection process”.

13.6.2. The Airports Commission report (2015) states that:

> *In considering the schemes against the Commission's objective to protect the quality of surface and ground waters, use water resources efficiently and minimise flood risk, the Gatwick Airport Second Runway scheme performs best in terms of water quantity and its less challenging programme of watercourse diversions is indicative of less risk around water quality standards and flooding.*

13.6.3. In flood risk terms, therefore, expansion at Gatwick Airport was considered to have a lower impact on the risk of flooding and was preferable in flood risk terms to either of the shortlisted schemes at Heathrow Airport.

13.6.4. The purpose of the Sequential Test is to direct development away from areas at risk of flooding and should therefore inform design. It should not be a case of determining where the development will go and then undertaking the Sequential Test. The consultation states:

> *The Sequential Test will be presented for both airfield and off-airfield developments. More detailed fluvial flood resilience/defence requirements will be present for any off-airfield developments that would require mitigation to pass the NPFF Exception Test.*

13.6.5. Furthermore, as set out in the National Planning Policy Framework, the aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. The flood zones (see table 1) are the starting point for this sequential approach. Zones 2 and 3 are shown on the flood map1 with Flood Zone 1 being all the land falling outside Zones 2 and 3. These flood zones refer to the probability of sea and river flooding only, ignoring the presence of existing defences. Areas at risk of surface water flooding should also be avoided.

13.6.6. Given the development has already been located, with some occurring in high risk flood zones and there is confirmation that the Sequential Test work will come later, then HAL has fundamentally failed to engage with the purpose of avoiding areas at risk of flooding.

13.6.7. The subsequent ES will therefore clearly set out information on the Sequential Test to retrospectively justify decisions already been taken. This is contrary to flood risk policy and the course of action required of every other developer.

13.7. Exception Test

13.7.1. A global approach has been taken to pass the first part of the Exception Test for

the majority of the scheme. This is not an appropriate approach, even for this stage of assessment, as there needs to be a more detailed approach to the local impacts and sustainability benefits to each of the communities at risk of flooding.

13.7.2. An expanded Heathrow Airport is not a community benefit that would mitigate for an increase in flood risk. Opportunities to reduce the risk of flooding to residents at risk of flooding adjacent to the proposals, such as those residents in the floodplain to the north of the M4, should be explored prior to DCO application.

13.8. Lower River Colne

13.8.1. It is welcomed that the current Environment Agency model has been enhanced to increase the resolution of the 2D domain. A 5m Digital Terrain Model has been used to infill some of the model grid. New LiDAR flown in 2018 by the Environment Agency is now freely available for the whole of Hillingdon and the DCO model should utilise this updated information.

13.8.2. Volume 3 Appendix 21.7 states:

> *"Further details of the High and Low Flow Hydrology assessments, including the calculation methods undertaken and assumptions made describing the hydrological analysis, will be available at the Environmental Statement stage".*

13.8.3. This should include a review of the extent of the contributing catchments, and also a review of how applicable the hydrological methodology is given that the upstream areas are predominantly permeable or urban. The hydrological analysis should also confirm whether the 180 storm duration is critical for the Lower Colne at the location of Heathrow Airport, as well as confirming whether other storm durations are critical for the other watercourses (such as the Bigley Ditch).

13.8.4. Volume 3 Appendix 21.7 states:

> *"Further details of the verification exercise undertaken, including a full report on the flood history, will become available at the Environmental Statement stage".*

13.8.5. The flood history report should include a complete review of flood records within the catchment based on Environment Agency records, LLFA records, newspaper archives and any other sources of information on flooding.

13.8.6. It would have been expected that this report would have by now included inform designs as part of the Sequential Test; this undermines the approach to avoiding areas at risk of flooding. In failing to do this, HAL should have at least provided a methodology and approach to developing the flood history report; this too has not been done.

13.8.7. No changes have been made to model hydrology as a result of the "With Development" model for the Lower River Colne. There are anticipated to be changes to the connectivity of intervening catchments for a range of watercourses as a result of the proposed development. Further details should be provided at DCO stage to ensure that this potential impact is captured in the hydraulic modelling work.

13.9. River Crane and Tributaries

13.9.1. The Frog's Ditch is an important watercourse that is currently underrepresented in PEIR assessment. Chapter 4 Section 4.4.22 states:

> *"Two large recreational open spaces; Cranford Park and Avenue Park, cover an area of around 68ha stretching from Cranford village northwards to the M4."*

13.9.2. This section does not include information about the watercourses to the north-east of the site. The Frog's Ditch, a designated main river, flows from land to the north of Shepiston Lane, crosses beneath the M4 before flowing between Crane Meadows and Cranford Park. The Frog's Ditch joins the River Crane to the east of the site to the north of the A4 Bath Road close to the crossing of Cranford Lane over the River Crane.

13.9.3. The Council welcomes the fact that the current Environment Agency model has been enhanced to increase the resolution of the 2D domain. A 5m Digital Terrain Model has been used to infill some of the model grid. New LiDAR flown in 2018 by the Environment Agency is now freely available for the whole of the Council boundary and the DCO model should utilise this updated information.

13.9.4. In Volume 3 Appendix 21.8, the hydrological inflow for the Frog's Ditch is referred to as "downstream of M4". Hydraulic modelling recently undertaken on behalf of the Council to improve the representation of the Frog's Ditch determined that the current EA model did not adequately represent the Frog's Ditch catchment. The DCO assessment should include additional information to quantify whether the entire catchment of Frog's Ditch has been allowed for in the hydrological inflow. This inflow includes contributions from the M4 drainage,

as well as multiple Thames Water surface water sewer outfalls.

13.9.5. There have been no changes to the 1D component of the River Crane model as part of the Proposed Scheme, with only changes to land use roughness as a result of revisions to the land west of Cranford Park. Hydraulic modelling work undertaken on behalf of LBH identified inaccuracies in the representation of some of the structures on the Frog's Ditch. The potential for anticipated changes in land use, as well as changes to surface water drainage from airside and supporting development to affect the hydrology of the Frog's Ditch should be considered in more detail at DCO stage.

13.9.6. The Council is leading on a project to divert a section of the Frog's Ditch through Cranford Park, as well as flood risk management improvements to the rest of the catchment of the Frog's Ditch. The proposals for green open space adjacent to Cranford Park, as well as alterations to drainage infrastructure, should be aligned with the aims of the Council project, such as the provision of blue/green infrastructure to convey surface water along Cranford Lane where the 'Green Loop' is proposed.

13.10. Surface Water Drainage

13.10.1. As acknowledged in the Drainage Impact Assessment (Volume 3 Appendix 21.4) the Non-statutory Technical Standards for Sustainable Drainage Systems states that for brownfield sites:

> *"the 1% AEP (1 in 100) rainfall event must be as close as reasonably practicable to the greenfield runoff rate from the development for the same rainfall event".*

13.10.2. This is not reflected in the proposed definition of the baseline runoff, which states that:

> *"The change in surface water drainage regime resulting from the Project, i.e. the drainage impact, should be defined as the change compared to the baseline, rather than the change compared to a theoretical 100% greenfield scenario".*

13.10.3. Given the scale of the project and the ability for land to be acquired as part of the DCO process, it is unacceptable to be suggesting that the benchmark for this development is lower than that expected of every other developer. It is expected that HAL will be required to demonstrate the higher standard of protection in line with planning policy, which is expected of other developers,

and their own pledges of high quality environmental performance.

13.10.4. The Council agrees with the sentiment in the Drainage Impact Assessment that a gravity-led approach to managing surface water drainage should be preferred ahead of a pumped system. Preference should also be given to above ground drainage (such as vegetated swales and detention basins) that will provide a treatment train approach to managing water quality throughout the drainage network, rather than addressing water quality concerns in downstream attenuation ponds. Vegetated swales and detention basins that only contain water for short periods of time during rainfall events should not be contrary to bird strike requirements and should be explored in more detail. Swales can also allow for a significantly greater storage volume in the conveyance network than equivalent piped systems, which can be utilised to reduce the requirement for downstream attenuation.

13.10.5. A simplistic assessment has been provided to describe the proposed locations of attenuation storage, which does not align with current guidance regarding source control methods and the provision of a treatment train for managing surface water. The Drainage Impact Assessment states:

> *"Given the large volume of attenuation storage necessary, the majority of the attenuation and pollution control areas indicated in the Figures may be occupied by attenuation basins, with the remaining area largely occupied by the dedicated pollution control (treatment) areas (reed beds)...".*

13.10.6. The DCO boundary should include an allocation of sufficient space for surface water attenuation, as well as sufficient land for natural treatment of surface water prior to discharge to allow for the required improvements in water quality. It will be unacceptable at DCO application stage for compromises to be proposed for surface water drainage on the basis of space allocation, given the scale of the development and the extent of the draft DCO boundary.

13.10.7. With regard to the conflict between the proposed M25 attenuation, flood storage area and environment mitigation for the diverted rivers, the Drainage Impact Assessment states:

> *"It has been assumed that sufficient land to incorporate the necessary measures to manage surface water will be provided in the proposals for the DCO application to ensure flood risk and water quality requirements will be met".*

13.10.8. The Council considers that the current proposals do not allow sufficient space

for the required uses between the diverted M25 and the taxiway to the third runway and should be reconsidered before DCO application stage.

13.11. Water Resources

13.11.1. The management of water needs to be considered in a holistic manner; in simple terms, this means the carefully considered approach between water collection, disposal and demand.

13.11.2. For some bizarre reason the information on water demand, which is absolutely integral to the water environment assessment, is contained randomly in an appendix to the waste chapter. This is entirely unhelpful and presents a fractured approach to the provision of a proper assessment of this issue.

13.11.3. It is also clear that even this document was an afterthought. Less than 10 pages across the 2000+ pages on the water environment section are dedicated to the water demand of this proposal.

13.11.4. The water demand of the airport needs to be seen in the context of the current situation and future trends. Heathrow is in a water stressed area. This means that demand is outstripping available resources. The May 2018 State of the Environment Report states:

> *Projections suggest that if no action is taken to reduce demand and increase supply of water, most areas will not meet demand by the 2050s under high greenhouse gas emissions and high population growth scenarios. Even low population growth and modest climate change scenarios suggest significant water supply deficits by the 2050s, particularly in the south-east.*

13.11.5. Further headlines throughout 2019, particularly for London, included:

- London 'facing water crisis', report claims;
- Water shortage crisis: Millions of residents in London and South-East urged to use 'as little as possible' after extreme weather hits supplies;
- England could run short of water within 25 years.

13.11.6. The water resources baseline states that the current demand for the airport will be 2.5billion litres per annum in 2021 with surprisingly no apparent change up to 2050 (despite increases in colleague and passenger numbers). With expansion, this nearly doubles.

13.11.7. To put this into context, the demand of the airport in 2050 (4billion litres per annum) will be similar to that of the town of Crewe (based on current populations and average usage of 150litres per person per day).

13.11.8. In response to what is described as a water shortage 'crisis', HAL has concluded:

> *"The local water supplier (Affinity Water) has advised that there are adequate water resources to meet the increase in water demand due to the DCO Project".*

13.11.9. This is not interrogated further and it appears to have been taken at face value. Affinity Water is not the water regulator. It is also not clear what was asked of Affinity Water in order for it to reach this supposed conclusion.

13.11.10. To compound the problem, the statistics relate solely to on-airport demand. The off airport generation of growth and housing demand all needs to be factored into the catchment for potable water demand and be considered as part of a far more comprehensive and robust analysis.

13.12. Water Cycle Strategy

13.12.1. A Water Cycle Strategy should be provided, as part of the DCO application, in order to appropriately understand and assess the impact of the proposals at all stages and provide the clear links between all topics of water environment, water resources, use, waste water and riverine environment that the proposal could impact. Only the right decisions can be made on appropriate mitigation if the full interactions can be understood on a catchment scale.

13.12.2. The PEIR assessment has not adequately considered the integrated water cycle when addressing the constraints on the Water Environment; particularly with the anticipated increase in water demand as set out above. The Airports Commission Report (2015) raised this specifically and stated that effective measures also needed to ensure that increased demand for water at an expanded Heathrow could be met. The development is a water-intensive development and should only be allocated in areas where sufficient water is available for use.

13.12.3. The Preliminary WFD Assessment does not indicate there will be an assessment of the potential impact of increased demand in water supply to support the operation of the third runway and expanded Heathrow. This proposal is located in an area of water supply provided by Affinity and is provided for by groundwater abstractions.

13.12.4. It should also be noted that the assessment of water availability and demand considers the whole catchment now and in the future (i.e. one that includes housing and population growth) as well all the developments ancillary, but necessary, for the growth of the airport.

13.12.5. This has to be a meaningful assessment that provides clear evidence of the baseline used and the method for reaching conclusions. The Environment Agency has concerns about the availability.

13.13. Public Open Space and Green Infrastructure

13.13.1. The figure in Graphic 6.8 of the DCO Project Description (not to be confused with Figure 6.8 in the Project Description which is annotated as Drawing 7.4) shows the green infrastructure around the airport after expansion.

13.13.2. At present, several river corridors enjoy an extensive open stretch of land between the airport and the M25 boundary. Some of this is publicly accessible open space but the expanse of the area allows for a comprehensive open space to green infrastructure ratio, i.e. the use of the public open space does not impinge on the role of the green infrastructure for other purposes (wildlife corridors etc...).

13.13.3. The project results in a significant reduction in this area (in places a 100% loss). In its place, HAL is proposing to move the green infrastructure to the west of the airport which will also double up as publicly open space. The area allowed for provides no such comparison to the existing situation. The project will result in a far more constrained open space and green infrastructure offering, meaning the adverse impacts of human interaction within the natural environment will be significant.

13.13.4. Complying with the Scoping opinion, the ES should ensure that ecological connectivity is adequately considered and assessed. There must be a honest presentation of the existing situation and what will result as a consequence of the project. The information in the PEIR is entirely lacking in this regard. The evidence presented, albeit poorly, implies a significant loss of both green infrastructure and open space with the river corridors particularly harmed.

13.14. Conclusion

13.14.1. The water environment section suffers from a lack of information and supporting evidence. Notwithstanding that, the approach taken to the

assessment is not supported and the findings cannot be considered valid at this stage.

13.14.2. The Covered River Corridor and Water Framework Directive Assessment are of serious concern; the former has been treated superficially despite clearly being a major undertaking with huge ramifications for the water environment and the latter suffers as a consequence of an incomplete and understated assessment of effects.

13.14.3. The Council is of the opinion that the water environment will be subject to likely significant effects that cannot simply be dismissed. The approach to mitigation is confused or of such complexity that it is being put off until the DCO stage. This is fundamentally inappropriate.

13.14.4. As a Lead Local Flood Authority, the Council has a significant interest in the management of the water resources in the area. Liaison with the Environment Agency is not sufficient. The lack of disclosure of important information to the Lead Local Flood Authority undermines this consultation.

13.14.5. Ultimately, the impacts on the water environment cannot yet be considered addressed and there are significant concerns that they can be, even with further work.

14. Socio Economics

14.1. General

14.1.1. The approach to socio-economic impacts is inconsistent, unclear, and presented according to 'what portrays a better outlook', depending on the subject matter. For example, the direct job creation for the airport is stated to be at its peak in 2035, whilst wider national growth is presented up to 2050. This makes little sense.

14.2. Job Creation

14.2.1. It is noticeable that the nationwide job creation identified by HAL (65,000 by 2050) is divorced from the expectations set out in the ANPS (114,000 in the local area by 2030).

14.2.2. Given that expansion is entirely predicated on the value of the project to the UK economy, it is essential to have a consistent and independently peer reviewed accepted position on the economic benefits of expansion. This should take place prior to any further work on the DCO.

14.3. Study Area

14.3.1. There is uncertainty about the study area selected; for example, the core study area includes assessment on places over 20miles from the airport whilst ignoring the areas of east Twickenham which are around 5miles distant. This is inconsistent.

14.3.2. In particular, Hillingdon falls within an area of strategic importance for the GLA which is separated into 4 distinct areas for types of employment. Warehousing (i.e. storage and distribution) requirements for the Council are currently being met; this means that there is a suitable population to employment ratio for this type of use. The proposed expansion will see a net decrease in this important employment use, which identifies that only 46% of the 136,000 m2 will be re-provided, i.e. a net reduction that has strategic implications for Hillingdon and West London. At a local level, in areas of deprivation as identified in the consultation, this will have a likely significant effect.

14.3.3. Confusingly, the project description in chapter 6 then states that the DCO will include provision for approximately 151,000m2 of floorspace but it is not clear

where. The presentation of this important topic is wholly lacking in quality and provides a very incoherent picture of the project.

14.3.4. The loss of employment to make way for Heathrow expansion will have a short and medium term impact, particularly as the airport intends to increase operations ahead of the completion of the third runway. It is not clear how this impact has been addressed at a local level.

14.3.5. The PEIR fundamentally understates this local impact, and particularly in relation to the loss of other employment generators, i.e. the BA Headquarters at Waterside and the hotels along Bath Road.

14.3.6. There is no clear phasing plan as to the timing of the losses (i.e. warehousing and hotels) and when they would re-provided. Similarly, there is no assessment of what happens in the interim.

14.4. Heathrow Airport and Deprived Areas

14.4.1. It is noted in both the ANPS and this consultation that much is made of the generation of employment opportunities at a local level. However, there is little narrative in the consultation as to why the airport, already a significant source of employment, is surrounded by areas scoring high on indices of deprivation.

14.4.2. The creation of Terminal 5 and the significant increase in annual passenger turnover does not appear to have resulted in notable changes to the socio-economic demographic of the areas around the airport. These are all deprived areas. Consequently, the superficial employment numbers assessment needs to be accompanied by a clear commentary on why the current situation (i.e. the baseline) is one that shows such significant deprivation, despite the presence of the airport.

14.4.3. This is not to lay blame for deprivation on the airport; it is, however, necessary to temper the claims about how airport expansion will have dramatic socio-economic benefits at a local level.

14.4.4. Furthermore, the claimed local benefits of the project need to be understood in the context of the surface access arrangements around the airport. The primary public transport routes serving Heathrow are east - west which is broadly contiguous with the most deprived areas. This makes access to the airport challenging for a wider area, and particularly for Hillingdon, in the north - south corridor.

14.4.5. Given that HAL is not proposing any new surface access interventions, and will rely heavily on the local network for the movement of passenger growth, then there needs to be a clear correlation with the transport assessment as to where the employment will be generated and how new employees will be moved to and from the airport.

14.4.6. If there is reliance on north - south links, then this needs to be demonstrated as being feasible.

14.5. Economic Development Strategy

14.5.1. As with many of the other topics, the PEIR has managed to reach conclusions without the supporting work being completed. There has also been a lack of disclosure of the supporting information that is apparently available.

14.5.2. Consequently, much of the alleged benefits appear to be based on the successful development and implementation of the 'Economic Development Strategy' which the Council has not seen.

14.5.3. No conclusions in the PEIR can be supported whilst so much information is withheld and the primary strategy for exploiting the benefits of expansion has yet to be compiled and disclosed.

14.6. Heathrow's Employment and Skills Academy

14.6.1. The unseen Economic Development Plan claims to include a 'credible' plan to implement the commitment to deliver a total of 10,000 apprenticeships as a result of an expanded airport.

14.6.2. The Heathrow Employment and Skills Academy supports employment opportunities through its work with the local businesses, employers and services providers. This includes the increased opportunities for new apprenticeships.

14.6.3. Whilst the consultation document makes references to the Heathrow Shared Apprenticeships Scheme having a construction focus, there is limited information on the efficacy of the Academy and the Scheme to deliver the bold claims. In lieu of disclosure of the 'credible' plan on apprenticeships, there is little confidence that HAL can achieve the numbers stated.

14.6.4. The Academy, as it is currently structured, is retail and service sector focused despite a recent growth in construction element. It has previously had limited construction focus and it is difficult to see, with the detail available, how the

Academy would be able to upscale operations to meet the numbers of apprentices and skilled workers required for the development period.

14.6.5. The Academy delivers on average 500 retail apprentices per annum. The uplift to a total of 10,000 apprenticeships by 2030 seems a very challenging target.

14.7. Assessment of Effects

14.7.1. The Council cannot support the conclusions of the PEIR. The lack of any meaningful information is the principal reason but there are also concerns about how the job growth, the study area and impacts on other environmental topics all marry up.

14.7.2. Table 18.52 presents the summary of negative and positive effects of the project. It is noted that there is insufficient information to determine the socio-economic effects from traffic disruption which, as stated elsewhere, is likely to result in a significant amount of congestion.

14.7.3. It is also stated that the construction impacts will have a positive impact across the core study area. However, this is not yet supported by evidence. Furthermore, there is no acknowledgement of the loss of warehousing and hotels on the area, particularly in the short term, for example, hotels will be lost before they are replaced. It is also not yet clear how many businesses will move on from the areas around Heathrow in recognition of the loss of communities or because of the excessive construction impacts. There needs to be a clear recognition that construction job creation will also coincide with the closure of existing businesses across a broader range of services.

14.7.4. The impacts on the local hotel trade is also compounded by the statement that many workers may seek short term lodgings in tourist accommodation; this leads to the odd situation where there will be a much greater demand for hotel rooms as a consequence of the significant increase in passengers in 2022 (15,000 early growth ATMs), as well as the construction workers, whilst simultaneously there will be a significant shortage of hotels through demolition.

14.7.5. Furthermore, the transport links to the airport will not result in equal gain across the arbitrary core study area. There needs to be a much greater focus on the impacts at a local level, particularly on the deprived areas in Hillingdon neighbouring the airport.

14.7.6. It is difficult to see how the conclusions that new employment opportunities in the short term represent a significant positive effect across the core study area.

Certainly in Hillingdon, the effects are likely to be significant and extremely disruptive. Again, this highlights the need for a more nuanced assessment of harm and not one that effectively averages out impacts across an extremely wide area.

14.7.7. Finally, it is also premature to reach conclusions ahead of the disclosure of the key strategy document outlining how the employment benefits are credible and achievable.

14.8. Conclusion

14.8.1. The socio-economic effect of the scheme was one of the most major justifications for expanding Heathrow. Given the sheer scale of harm across a range of social and environmental topics, then it would have been expected that this consultation presented a clear and well articulated benefit to offset that harm.

14.8.2. It would also be expected that this area had been fully developed with all information presented to demonstrate how impressive the benefits of expansion are.

14.8.3. The lack of information on socio-economic effects and the poorly developed case to present benefits raises significant questions about whether the economic benefits were misrepresented previously. The Council cannot see any significant local benefits from what little information is provided but the general material presented shows the benefits of the scheme are few fewer than the Council was led to believe.

15. Land Contamination

15.1. Introduction

15.1.1. It is anticipated that many environmental issues associated with land contamination will be encountered during the development of a proposed third runway and associated infrastructure that are being proposed to occupy a significant expanse of land adjacent to the existing airport.

15.1.2. The consultation material comprises a substantial quantity of information arranged into 15 “Document collections”. Each of these collections contains significant numbers of links to further documentation, with many pages of information included in each document.

15.1.3. The sheer quantity of facts, figures, and significant cross referencing of details within the documents is a significant bar to effective engagement. None of this information was provided or seen by the Council ahead of the consultation.

15.1.4. It is particularly difficult in terms of locating the relevant details for a technical review of land contamination issues within the southern parts of Hillingdon.

15.2. Background and Role of the Council

15.2.1. The proposed area for development includes large tracts of land that are currently suitable for use by a range of existing residential communities and their aligned retail, commercial, industrial and open space facilities within the area.

15.2.2. Some areas of land being considered for the project are already known to be affected by contamination as a result of historic sequences of land uses, commencing with historic mineral extraction to exploit the vast quantities of sands and gravels which were then (and continue now to remain) commercially viable and financially lucrative due to the availability of materials in large deposits. These are relatively easily won by virtue of their close proximity to the surface.

15.2.3. Subsequent landfilling activities which have taken place during the 19th, 20th and early 21st centuries have introduced contamination as a result of infilling the relatively large quarry voids with significant quantities of hazardous and non-hazardous waste materials.

15.2.4. The Preferred Masterplan outlines plans to significantly reconfigure existing land topographies, which in turn would introduce important factors to be considered in terms of land affected by contamination, and may also involve aspects of Contaminated Land legislation, as defined by Part 2A of the Environmental Protection Act 1990.

15.2.5. The methodology to determine whether land is Contaminated Land in accordance with Part 2A of the Environmental Protection Act 1990 includes complex risk assessments which consider possible relationships and proven contamination linkages between combinations of sources, pathways and receptors that are present at a location.

15.2.6. Table 14.1 in the consultation documentation for Land Quality identifies a significant quantity of other UK and EU legislation relevant to land and environmental quality, which are also in place to protect the environment from adverse effects and impacts associated with various activities, including large scale major DCO projects such as the proposed expansion of Heathrow.

15.2.7. The Council has a remit for the protection of human health in the context of land contamination.

15.2.8. The Preferred Masterplan document provides a general overview of the parameters and layout of the proposed arrangements which would be in place to facilitate expansion of Heathrow airport as “Environmentally Managed Growth”.

15.2.9. The proposed area of land to be utilised is orientated in an east west direction, commencing at a north western location from the existing area of land currently occupied by the airport. The document further indicates that the expansion would require a land area of approximately 600 Hectares (1482 acres), including land designated as green belt. Although, as stated elsewhere in this report, this figure is likely to grow if the full extent of expansion is properly accounted for in the DCO.

15.2.10. The areas of land which are of particular interest to the contaminated land section of Hillingdon, are currently utilised for a variety of uses including residential, industrial / commercial, agriculture and public open-spaces, all of which are currently assessed to be suitable for use in terms of the various current descriptions of land uses and the various receptors present within those areas.

15.2.11. However, in accordance with the proposed schemes, many changes would be

introduced especially in terms of land condition, land usage with new sources, pathways and receptors.

15.2.12. As Primary Regulators of Contaminated Land in Hillingdon, the Council is required to assess the various complex interactions and risks associated with land condition, all of which must be considered in terms of historic, present, and future proposed land uses and current receptors. In order to do so, the following legal definition of Contaminated Land is applied:

> *"Contaminated land" is any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land that –*
>
> *(a) significant harm is being caused or there is a significant possibility of such harm being caused; or*
>
> *(b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused.*

15.2.13. The above definition is of particular importance in situations when new developments are undergoing consideration and assessment within Hillingdon, and clearly the various land assessment processes and procedures will be applicable to the Heathrow expansion project.

15.3. Lack of Information

15.3.1. At this stage, various gaps in information concerning land contamination have been identified within the consultation documentation. It is therefore a necessary requirement for the gaps to be addressed accordingly and for the details to be communicated immediately to the Council or as soon as possible, following the acquisition of new additional details and clarification from the relevant sources.

15.3.2. Indeed, throughout the reviewed documents, there are indications of significant quantities of absent details which the document indicates are required to be incorporated, as additional information, within a future produced ES and as further data (e.g. from monitoring programmes) becomes available.

15.3.3. For example, where the gaps involve proposed earthworks that may not be correctly managed and/or do not have proper controls in place, any plans to excavate areas of land that are either known or suspected to have waste substances in, on or under the land, could result in significant harm to a variety

of receptors. It would be essential for the Council, as lead regulators of the Contaminated Land Legislation, to immediately receive appropriate communication of such information, in order for it to ensure that any circumstances of significant harm, or the significant possibility of such harm, are suitably addressed and mitigated as they arise.

15.3.4. The proposed expansion at Heathrow would involve major earthworks that are likely to disturb many hazardous substances which are undoubtedly already present in, on or under the land, particularly at various locations of former landfill sites, including some currently active industrial premises, which may lead to situations where significant harm could be caused.

15.3.5. The general background of the area presents a significant likelihood of heavily contaminated areas. Unfortunately, there is little information of substance in the consultation document which states:

> *"The land contamination baseline conditions are presented in detail in the Geo-Environmental Desk Study (desk study) which will form an appendix to the ES. The baseline conditions presented in the desk study are summarised briefly in this section".*

15.3.6. This desk study has not been provided. Instead, HAL appears to have selectively summarised some of the findings of this study. For obvious reasons the Council can provide no validation of these conclusions. Without the supporting information, the summary position cannot be verified with any confidence.

15.4. Approach to Assessment

15.4.1. The Council is very concerned that HAL has only undertaken a fraction of the investigative work necessary. Figures 14.2 and 14.3 of the PEIR show the areas of ground investigation, soil sampling and groundwater investigation.

15.4.2. These are not comprehensive enough to cover the whole project; in particular, the two parkways, the realignment of the A4, other junction works around the M4, the proposed site for Harmondsworth School relocation, river diversion corridors and areas for flood water storage.

15.4.3. The maps do not outline where investigations are still being carried out, or where they are proposed in the future. Again, the consultation provides little assistance; there is no reason why HAL should opt not to disclose details of future investigations.

15.4.4. Furthermore, there is no information on the areas of suspected contamination from the demolition work, i.e. which sites are likely to pose particular risks from their existing or former land use. It is therefore concerning that in the absence of information gathered from intrusive investigations the consultation states:

> *"The extent of the ground investigation surveys will also be dependent on the availability of site access. Significant efforts are currently being made to access as wide an area as is possible within the Site. <u>However, where site access is not available</u> (and therefore quantitative land contamination data will not be available), the land contamination assessment will be undertaken in the ES using the available desk study data".*

15.4.5. It is the Council's understanding that HAL has been able to secure the necessary site access to undertake investigative works. There should be no reason, beyond a lack of planning, that constrains the scope of the assessment. If there are areas that cannot be accessed, then the PEIR should identify them. The lack of transparency in this matter is of concern.

15.4.6. For the avoidance of doubt, the Council expects to see full details of the land contamination investigations where there is a clear likelihood of contaminated land being presented. A precautionary approach must be applied.

15.4.7. A great swathe of the land within the DCO boundary is former or current landfill, with land uses that pose contaminative risks, or have a history of contaminative uses.

15.4.8. Historic landfill data is generally unreliable even if available. Some of these landfill sites are known to have received highly complex wastes, including those which are possibly hazardous and radioactive.

15.4.9. The Council is the lead local authority on contamination in relation to human health, not the Environment Agency and not the Heathrow Spatial Planning Group. Consequently, the Council is the authority who needs to be satisfied, applying a precautionary approach, that the development will not put people and places at risk.

15.4.10. If there are areas to be investigated, then it is expected that a full suite of sampling and monitoring has been undertaken. A project of this size cannot be assessed based solely on desk top studies, particularly given the lack of historic records.

15.5. Re-use and Recovery of Material

15.5.1. Section 6.4.51. in Chapter 6 of the PEIR document DCO Project Description states:

> *"Heathrow would consider the potential to reuse or recover materials arising during earthworks. As part of the EIA for the DCO Project, Heathrow would undertake a land contamination risk assessment. This would inform the identification of acceptance criteria for re-use of excavated materials in the earthworks, which would be used in conjunction with geotechnical assessment criteria".*

15.5.2. The Council should ensure the following is undertaken ahead of the detailed DCO application:

i). Provision of Information

15.5.3. Works should not commence until a detailed scheme to assess and deal with contamination has been submitted to, and approved, by the Local Planning Authority Contaminated Land Officer, in accordance with the Supplementary Planning Guidance Document on Land Contamination. The scheme should include all of the following measures:

ii) Phase 1 - Preliminary Risk Assessment and Conceptual Site Modelling

15.5.4. Desk-top studies should be conducted by competent person/s to characterise all of the site and provide information on the history of the site/surrounding area and to identify and evaluate all potential sources of contamination and impacts on land and water and all other identified receptors relevant to the site;

iii). Phase 2 - Generic and Detailed Quantitative Risk Assessments

15.5.5. Site investigations, (including soil, soil gas, surface and groundwater sampling, together with the results of analysis and risk assessment), should be carried out by a suitably qualified and accredited consultant/contractor. The reports should also clearly identify all risks, limitations and recommendations for remedial measures to make the site suitable for the proposed use.

15.5.6. These must inform the decision making and therefore presented to the Council ahead of the DCO application to provide sufficient time to consider.

iv). Remedial Phase

15.5.7. Written method statement/s providing details of the remediation scheme/s, including how the completion of the remedial works for each phase of the project will be verified, shall be agreed in writing with the Council prior to commencement of each phase, along with the details of a watching brief to address undiscovered contamination. No deviation shall be made from this scheme prior to its implementation.

v). Dealing with unforeseen contamination.

15.5.8. If, during remedial or development works, contamination not addressed in the submitted remediation scheme is identified, an addendum to the remediation scheme shall be agreed with the Council prior to implementation; and

vi). Importation of soil cover materials

15.5.9. No contaminated soils or other materials shall be imported to the site. All imported soils for landscaping purposes shall be clean and free of contamination. Before any part of the development is brought into use / occupied, all imported soils shall be independently tested for chemical contamination, and the results of this testing shall be submitted and approved in writing by the Council. All soils used for landscaping purposes shall be clean and free of contamination.

vii). Completion of Remedial Works

15.5.10. All works which form part of a remediation scheme should be completed before any part of the development is brought into use.

viii). Verification

15.5.11. Upon completion of the approved remedial works, this condition will not be discharged until a comprehensive verification report has been submitted to, and approved, by the Council. The report shall include the details of the final remediation works and their verification to show that the works for each phase have been carried out in full and in accordance with the approved methodology.

ix). Movement and Storage of Contaminated Materials

15.5.12. The amount of contaminated material being moved around will be significant as will the culmination of stockpiles. There must be a negligible risk to people and property of such activity which requires a) an honest representation of the

material being moved including its source and receptor sites, b) full details of the construction routes avoiding sensitive receptors and c) the methods to ensure there will be no dispersal of contaminated material.

x). Full details of the receptor sites for waste and contaminated material.

15.5.13. The amount of contaminated material is likely to be significant and there will be an excessive demand on landfill sites. It is essential for the other assessments (i.e. road borne traffic) that the routes and destination of the waste material is identified and assessed.

xi). Full details of the long term monitoring and mitigation regime

15.5.14. A project of this size will carry inherent risks of contaminated material not being identified and being deposited or stored in inappropriate locations or manner. There must be an ongoing monitoring regime that covers all material transported, manoeuvred and managed with an appropriate mitigation plan in place should any problems materialise over time.

15.5.15. The above procedures and methods should be adopted in accordance with the details within the documentation 'Land Contamination: Risk Management (LCRM)' including the Environment Agency documentation' Guiding Principles for Land Contamination (GPLC1, 2 & 3.)'. It should be noted that during the course of the proposed scheme, a document entitled 'Land Contamination: Risk Management (LCRM)' will replace the current guidance known as 'Model Procedures for the Management of Land Contamination (CLR 11)'.

15.5.16. In June 2019, the Environment Agency published an online update to the Model procedures for the Management of Contamination, and indicated their intentions to withdraw CLR 11 in six month's time. The online details also states "The Environment Agency expects you to follow this guide if you're managing the risks from land contamination"

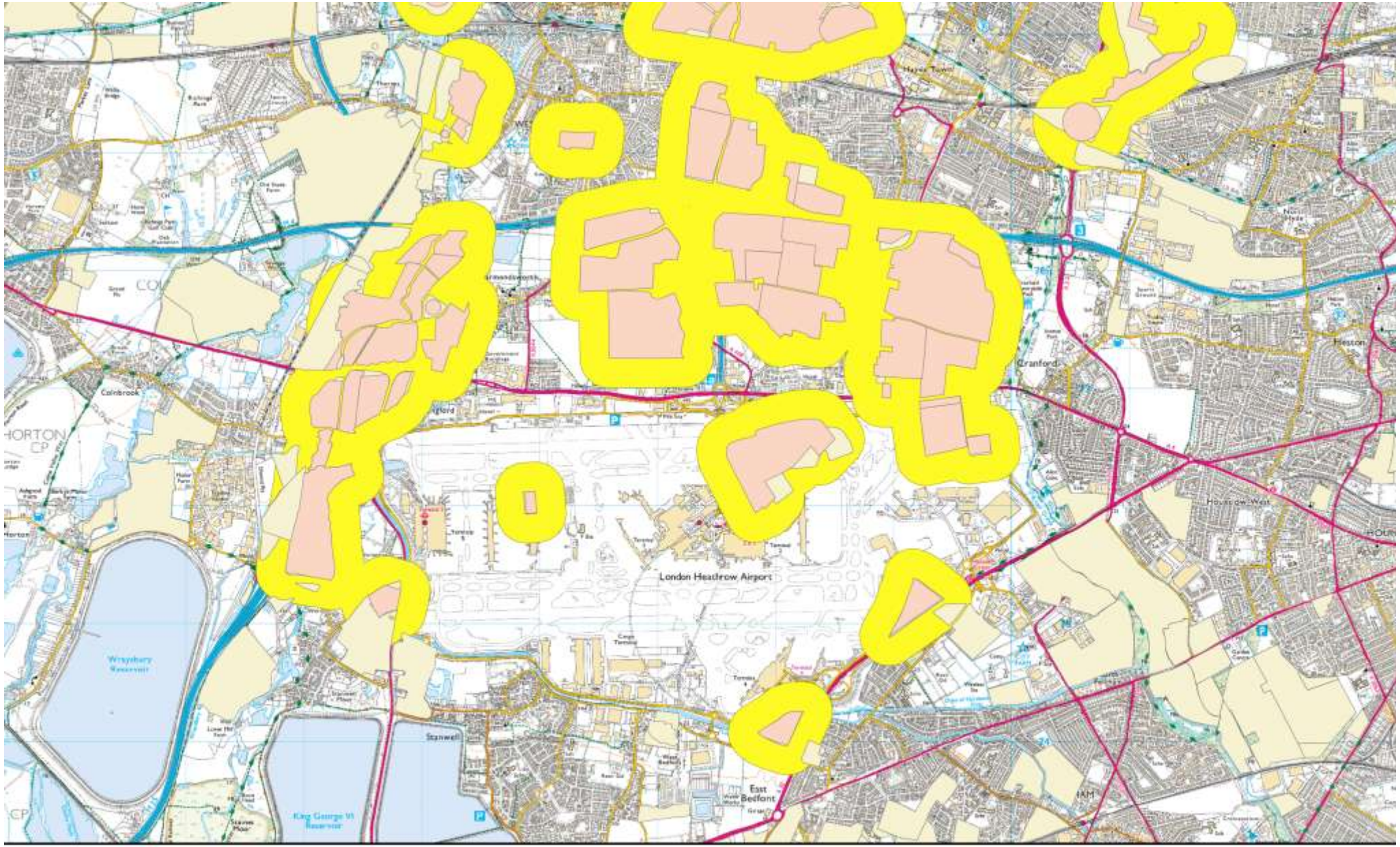
15.6. Earthworks on land affected by contamination

15.6.1. The consultation documentation indicates that a substantial quantity of earthworks are being proposed to complete the expansion; involving movements of approximately 21 million cubic metres of earth within the site.

15.6.2. The earthworks will include disturbances of quantities of historically landfilled materials that the proposals indicate would be displaced from their current locations and transported to specified locations at the site.

15.6.3. Land contamination records held within the Council show a number of different historic and current sites. These range in the types of material received and some are identified as gassing or requiring gas flaring.

15.6.4. The specific information on waste is not generally available and may not be reliable if it is. Any proposal to use the land within the site or the buffer zone should be subjected to further investigations. The Map overleaf provides a general overview of the locations of the landfill sites:



Legend

- landfill Site - LBH Information
- Landfill Site - Environment Agency Information
- 250m Landfill Buffer

Landfill Sites around Heathrow Airport

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15.6.5. The recorded descriptions of waste currently contained in the landfill sites are generalised. However, the materials will undoubtedly comprise quantities of hazardous and putrescible products, which are likely to be biodegradable under certain natural processes which occur within waste deposits.

15.6.6. It is probable that renewed processes of decomposition of any previously non-degraded waste would likely reactivate during and following works to disturb or excavate the fill materials.

15.6.7. Such re-activated natural processes within the landfill materials would likely produce a range of undesirable products of degradation including heat energy e.g. from spontaneous combustion (e.g. when oxygen in air is introduced); hazardous bulk gases e.g. methane and carbon dioxide; trace gases e.g. hydrogen and carbon monoxide; and liquids e.g. leachates and condensates; many of which represent extremely mobile contaminants that are capable of producing offensive odours e.g. mercaptons and highly toxic emissions e.g. hydrogen sulphide, from the decomposition of reactivated waste.

15.6.8. The realistic situation is that large amounts of excavated material will have to be landfilled, itself requiring assessment. Bio-remediation and onsite treatment is generally possible, but on the scale necessary for this development, the feasibility is seriously questioned.

15.6.9. The exposure of the landfill sites will most likely result in odours that will have likely significant effects in the short term (Southall Gasworks site preparation provides a suitable nearby contemporary case study). Excavating landfills increases vermin, gulls, pigeons; they are unsightly, malodorous and potentially harmful to health.

15.6.10. Furthermore, no conclusions can be reached on impacts to the water environment without understanding the possibility of mobilising huge levels of contamination to sensitive groundwater. In terms of flood risk, much of the landfilled sites are on made ground and above flood levels; excavation will change the water management regime exposing void space to flood risk adding to concerns about the mobilisation of contaminants above and below ground.

15.6.11. The landfills are also likely contain some very concerning substances; for example, asbestos and potentially radioactive substances.

15.6.12. In general, there a suite of likely significant effects that impact across a range of

environmental topics as well as the health assessment.

15.6.13. The magnitude of this project cannot be overstated when considering the implications for contaminated land. For this reason, it is extremely concerning that such little information has been provided in this PEIR even though it is allegedly available.

15.7. Soil Treatment and Stockpiling

15.7.1. The types of soil treatment processes to be applied are not identified in the Land Quality section of PEIR document Volume 1 Chapter 14 of the consultation.

15.7.2. Due to many recognised negative impacts associated with some open-air (windrows) soil treatment processes, it is recommended that the Council is provided with prior information concerning the types and likely impacts of the proposed treatment and processes.

15.7.3. All excavated materials that are proven by analysis to be sufficiently contaminated and thereby unsuitable for a required use, should be safely transported to designated areas allocated for soil treatment processes to occur. Given the land available, there should be no reason why these processes take place near sensitive receptors.

15.7.4. It is likely that waste materials displaced from their original repositories during earthworks would require treatment, to remove expected quantities of significantly elevated concentrations of contaminants, in order to render the materials suitable for use in specified new locations (or for disposal/containment as applicable).

15.7.5. Section 14.10.23 and 14.10.24 of the PEIR document Volume 1 Chapter 14 indicates the location of areas allocated for stockpiling and soil treatment processes. They are proposed to be situated as follows:

- East of Harmondsworth and
- South of Holloway Lane.

15.7.6. These 2 locations contain the sites of former landfilling operations shown on Council and Environment Agency databases. There are no precise details concerning proposed methods and designs to prevent cross contamination of materials from the stockpiles to the underlying materials and vice versus.

15.7.7. There are no precise details concerning proposed methods and designs to prevent run-off from the stockpile onto the surrounding ground surface, which records indicate overlies a Principal Aquifer.

15.7.8. A proposed third stockpile is shown on land beyond the boundary between Hillingdon and the neighbouring Slough Borough Council in the County of Berkshire.

15.7.9. The Council would welcome details concerning achievement of appropriate authorisations and proposed methods to ensure safe transportation is arranged to effect movement of materials to and from the site/s as required.

15.8. Excavation of clean materials

15.8.1. The locations of four borrow pits are identified for extraction of required materials, e.g. sands gravels, including the overburden of reusable of soils and subsoils. It is understood all of them would be assessed for suitability for construction and soil engineering uses within the project.

15.8.2. It is also indicated that following extraction, the borrow pits will be subsequently used as new repositories for waste materials, including contaminated materials that are deemed unsuitable for reuse within the proposed project.

15.8.3. The Council would require assurances and confirmation that backfilling operations at the borrow pits would be conducted strictly in accordance with the various legislative requirements and current Environmental Permitting Regulations and associated waste management guidelines, which should be adopted to ensure the repositories will be fully engineered so as to not facilitate future migration of contaminants as substances that can cause significant harm to any receptors.

15.9. Monitoring and assessment of land contamination

15.9.1. The current arrangements for environmental monitoring appear to be focused on areas local to the western extent and a central area of the scheme.

15.9.2. The Land Quality section of PEIR document, Volume 1 Chapter 14, indicates locations of preliminary on-site and off-site investigations and monitoring of ground conditions and controlled waters (groundwater and surface waters).

15.9.3. However, the current investigations do not appear to be site-wide at present and therefore in order to fully characterise the site, the Council would expect additional investigations to be conducted in further locations in (and as applicable around) the site.

15.9.4. Furthermore, there is no defined monitoring plan available within the consultation documents to indicate what, why, when where and how future monitoring will be

conducted.

15.9.5. Particular reference to monitoring and management plans should be made available, to define the future monitoring and control of leachate within specified attenuation zones local to areas where leachate is being produced. Such areas include backfilled borrow pits and areas where historic landfills are to be disturbed and where leachate breakout and/ or sub-surface migration of leachate plumes could pose a significant risk to surrounding ground and controlled waters.

15.9.6. Monitoring should also focus on using suitable data to identify the extent of any possible leachate plumes that may have developed before and during the construction works.

15.9.7. It is also recommended, particularly in terms of Part 2A Contaminated Land Legislation, that on-going scheduled monitoring should continue beyond the dates of completion of the proposed expansion scheme.

15.10. Conclusion

15.10.1. It is not clear why the desk based assessments were not disclosed as part of this consultation. The conclusions reached in the documentation and the approaches outlined are therefore not informed or supported by the appropriate evidence. The Council cannot therefore provide an opinion on whether the approaches adopted are adequate.

15.10.2. Contaminated land is likely to be a significant hurdle in developing the proposal further. The reality of historic landfilling is that the true state of the restored land is largely unknown. The information gap can only be filled by extensive intrusive investigations.

15.10.3. These intrusive investigations should be informed by desk based assessments; had these been provided, the Council would be able to comment on whether the approach to intrusive investigations was adequate; i.e. the number and locations of boreholes and sampling points. As it stands, the Council does not know how the intrusive investigations will be carried which is likely to result in conflict at a later stage.

15.10.4. Regardless, the land contamination in the area has such bearing on other topic areas for example, health, waste generation, lorry movements, storage of materials near sensitive receptors, the landscaping plan, the covered river corridor and so on... The lack of information undermines the wider assessment and conclusions reached.

16. Landscape

16.1. General

16.1.1. The approach to the landscape visual impact assessment (LVIA) appears to be a superficial by the numbers approach adopted, with limited understanding of the true magnitude of change. The LVIA separates the impacted areas into smaller sections and presents them all as of only medium level sensitivity.

16.1.2. The LVIA also uses viewpoints to present the impact of the scheme. These viewpoints are sometime illogical; for example, viewpoint 5 is looking away from the project. It is also notable that so few viewpoints have been used. The assessment also uses the year up to 2050 which is at odds with other assessments, although in terms of landscape, the longer the assessment period the better because any proposed vegetation has plenty of time to mature. However, to ensure a consistency of assessment approaches, as opposed to picking and choosing the year that best suits HAL, there should be a uniform approach to the assessment year. Alternatively, a reasonable worse case should be presented. For landscape, the reasonable worse case fully operational year would be 2035.

16.2. Assessment

16.2.1. The assessment, without any recourse to CGIs, then presents the conclusions which plainly are not acceptable as they are not backed up with any evidence. For example, the long term impacts on a viewpoint near Harlington is moderate adverse. This defies logic. Harlington will have a new runway built within 1km, a new 'A' road passing to the north and a little further away will be one of Europe's largest car parks.

16.2.2. Even without any supporting evidence, it is obvious that this assessment is wrong.

16.2.3. In general though, the Council cannot endorse or support the findings of any of the LVIA and nor it can it provide a counter position whilst HAL continue to withhold important information.

16.3. Wider Impact

16.3.1. HAL's approach to breaking down the impacted areas into smaller chunks fundamentally misses the far larger impact of the project. The airport removes the landscape surrounding it which separates it from the large urbanised areas north of

the M4 and the counties outside of London.

16.3.2. The landscape, informed by a Green Belt boundary, will be altered to the extent that there will be limited, if no discernible borders, between urban areas and will remove the West London green lung that separates it from Surrey, Berkshire and Buckinghamshire.

16.3.3. Similarly, the airport along with Heathrow villages, is separated from the M4 corridor and urbanised areas further north by the Green Belt. The villages are heavily impacted (one destroyed, one cut in half and the remainder having to contend with a new heavily operational runway) and the Green Belt virtually removed.

16.3.4. From a landscape perspective, it is immaterial to be isolating the assessment to individual viewpoints from random locations. These are in themselves important, but there is a far greater cumulative impact of this project on the landscape which is absent from the assessment.

17. Equality Impact Assessment

17.1. Introduction

17.1.1. The Council is subject to the public sector equality duty under section 149 of the Equality Act 2010 and is therefore familiar with the concept of Equality Impact Assessments [''EqIAs''] as it is often responsible for undertaking them itself.

17.1.2. The Council that HAL is, irrespective of the application of the above provision or otherwise, required by the ANPS to undertake an EqIA. Paragraph 4.27 of the ANPS clearly states:

17.1.3. ''for any application to be considered compliant with the Airports NPS, it must be accompanied by a project level Equality Impact Assessment examining the potential impact of that project on groups of people with protected characteristics. In order to benefit from the support of the Airports NPS, the results of that project level Equality Impact Assessment must be within the legal limits and parameters of acceptability outlined in the Appraisal of Sustainability that informs the Airport NPS''.

17.1.4. The ANPS also states that the equality impact process should be developed in conjunction with stakeholders and ''that final impacts on affected groups should be the subject of a detailed review, carefully designed through engagement with the local community, and approved by the Secretary of State''.

17.1.5. HAL has made it clear in its consultation document that it considers the EqIA to be a developing, iterative process and that it is at this stage setting out its emerging findings and issues of potential effects and measures to manage them. However, HAL states that the final package of measures to enhance equality will change and evolve in collaboration with the local community between now and the publication of its final EqIA in 2020. Apparently, this final document will provide a full assessment of equality effects and measures to manage negative effects and maximise positive effects. It is understood that it is this document which will be presented to the Secretary of State for approval.

17.1.6. HAL states that this 'EqIA: initial findings' report sets out potential ideas and options to manage equality effects and it seeks feedback from stakeholders on measures that should be considered.

17.2. General Comments

17.2.1. HAL confidently asserts that it will ensure that the final version of the EqIA is written in a concise and easy to understand way, so as to ensure that more people can understand the changes that are being proposed and how they will affect them.

17.2.2. It is a shame that the initial findings report does not have these characteristics; the assessment is both detailed and incomplete at the same time and is difficult to follow in certain areas. The assessment purports to use data for the purpose of identifying disproportionate, differential and inter-sectional impacts, based on the 9 sets of protected characteristics contained in the Equality Act 2010, which groups of people are most likely to experience them and where these groups live in relation to the airport.

17.2.3. The analysis undertaken by HAL shows that there are disproportionate impacts on the grounds of age, disability, race, religion or belief and sex (women) and differential impacts on the grounds of age, disability, pregnancy and maternity, race, religion or belief and sex (women).

17.2.4. The assessment does not, however, specifically identify inter-sectional impacts in spite of the data suggesting that these exist on the grounds of age and disability and in such circumstances the disadvantage that people can experience may be magnified. For example, older BAME people or children who are disabled may experience multiple effects.

17.2.5. Nor does the assessment consider the differential effects on the grounds of gender reassignment, sexual orientation and race with regards to mental health and the effects of noise.

17.2.6. The initial findings assessment is made up of 10 separate chapters and 4 appendices. The Council will, for ease of reference, set out its comments in relation to each of the chapters in turn. Chapter 1 is the introduction and Chapter 2 outlines the nature of the DCO Project in summary form and therefore it is unnecessary for the Council to specifically comment on them.

17.3. Scope and Methodology

17.3.1. This part of HAL's assessment sets out the scope of the EqIA and the methodology for undertaking the assessment of potential equality effects.

17.3.2. The Council welcomes the fact that HAL has identified that, notwithstanding the fact

that low income groups, carers and people without access to a car do not enjoy protected characteristics under the Equality Act 2010, nevertheless they are likely to be disproportionately disadvantaged by the effects of airport expansion and therefore such effects will be assessed by the Preliminary Environmental Information Report [''PEIR''] and the Environmental Statement [''ES''] which will accompany HAL's DCO application.

17.3.3. Having said this, there is likely to be a direct link between low income groups and certain protected characteristics under the Equality Act and therefore the Council would like to see the data sources and analysis to support any findings of such links, together with any mitigation which needs to be put into place, if considered appropriate.

17.3.4. HAL contends that the construction and operation of the DCO Project guides the temporal scope of the EqIA and that the wider Heathrow expansion project would be constructed and implemented in three phases over a number of years [between 2022-2050].

17.3.5. However, HAL appears to have taken no account of the potential delays which will inevitably arise in the implementation of the project which has of course occurred in relation to other major national infrastructure projects, most notably Crossrail 2. The obvious consequence of any such delays is that individuals and groups with protected characteristics will be subject to the effects of airport expansion over a longer period of time than is currently envisaged.

17.4. Evidence Review: Legislation, Policy and Strategy

17.4.1. Table 4.4 highlights a lazy attempt by HAL to identify the Council's LBH's Equality and Diversity Policy and references instead the 'Harassment Policy Statement' [date unknown] which is not relevant for the purposes of this assessment.

17.4.2. The appropriate document, 'Hillingdon's' Equality, Diversity and Inclusion Policy Statement, can be found at https://archive.hillingdon.gov.uk/article/32866/Policy-statement. This document sets out LBH's vision of promoting equality and fairness for everyone who lives in, works in or visits Hillingdon.

17.5. Evidence Review - Local Population Data

17.5.1. HAL asserts in paragraph 5.2.3 that:

"Analysis of effects on these groups is undertaken using published literature and

evidence, rather than demographic data. These groups include:

1. Gender reassignment: people who are transgender; people who are gender non-binary.

2. Sexual orientation: lesbian, gay and bisexual people; straight or heterosexual people".

17.5.2. The Council is unable to find any reference to any analysis of effects on these groups in HAL's assessment which is disappointing.

17.5.3. Furthermore, the assessment does not use the national data for sexual identity, as published by the Office for National Statistics in 2017 which can be found at https://www.ons.gov.uk/peoplepopulationand community/culturalidentity/sexuality/bulletins/sexualidentityuk/2017.

17.6. Evidence Review - Published Literature and Research

17.6.1. The assessment does not use publically available literature and research in relation to the potential differential impacts of changes in noise exposure for the protected characteristics of Gender Reassignment, Race and Sexual Orientation in respect of mental health.

17.6.2. The relevant statistics and references are presented at the end of this chapter.

17.7. Evidence Review: Stakeholder and Community Engagement

17.7.1. There are two specific tables identified. The first is Table 7.1 which is headed 'Stakeholder and community engagement activities relevant to EqIA' in which a summary of the activities and timescales is provided.

17.7.2. Reference is made to a ten-week non-statutory public consultation undertaken by HAL between January and March 2018 and it is noted that out of the 5,000 or so responses which were received, a high proportion of respondents did not provide diversity monitoring data. A number of groups with protected characteristics were identified as underrepresented amongst the respondents and HAL states that 'measures were identified following this consultation to try to better reach these underrepresented groups and gather their perspectives on expansion in the future. These measures have been factored into the design of Airport Expansion Consultation activities and monitoring'. However, it is a shame that no attempt has been made in this consultation document to explain or summarise what these measures are and

therefore consultees are unable to understand what they are.

17.7.3. A further concern which arises from Table 7.1 is that the Council notes the very low numbers of individuals/groups with protected characteristics who attended the nine community stakeholder events held by HAL in April and May 2019. It is noted that only 47 people in total attended these events and even worse, 22 feedback forms were returned.

17.7.4. In the circumstances, the Council questions the robustness of the evidence base for the EqIA initial findings and it wants to know what further steps HAL is seeking to take for the purpose of engaging with people with protected characteristics, and in particular those from BAME communities, who are both disproportionately and differentially affected by the Heathrow expansion proposals.

17.7.5. Turning now to Table 7.2, which is headed 'Feedback from stakeholder engagement activities relevant to EqIA', it is once again very apparent that it has been highlighted that in a number of instances, no specific feedback has been identified from groups with protected characteristics. This merely serves to underline the above comments.

17.8. Evidence Review: Preliminary Environmental Information

17.8.1. HAL states that a preliminary assessment of the likely environmental effects are provided in a Preliminary Environmental Assessment Report which is part of the EIA process. The environmental aspects arising include air quality and odour, community, health and noise and vibration. The final assessments will be reported in the ES which will accompany HAL's DCO application.

17.8.2. With regard to air quality and odour, HAL is clearly trying to significantly downplay the very serious implications arising although there reluctantly appears to be an acceptance that there are some locations affected by Heathrow expansion where they will be greater. The Council's response is that, irrespective of any protected characteristics considerations, air quality is an extremely serious issue affecting people generally which both the Government and HAL will continue to ignore at their peril. Both will be aware that this is one of the grounds of the Council's judicial review challenge which was heard by the Divisional Court back in March. Although this ground was dismissed by the Court, and does not form part of the appeal to the Court of Appeal, the Council does nevertheless fully reserve its right to bring a further air quality legal challenge in the future should it consider it appropriate to do so.

17.8.3. As far as the community implications are concerned, it is noted that the construction

of the DCO Project will result in the displacement of 756 homes across the Compulsory Purchase Zone and that approximately 1,800 people living within this Zone could be subject to residential relocation.

17.8.4. A number of valuable community facilities in the borough of Hillingdon will be lost to Heathrow expansion including Harmondsworth Primary School and Sports facilities at Harmondsworth Recreation Ground. With regard to the former, HAL, in its typical dismissive style, has tried to blame the Council's non-engagement, in its capacity as a local planning authority, for the approach which it has had to take, in identifying a potential site for the relocation of the school. This is something which the Council simply does not accept.

17.8.5. HAL states that the sports facilities at Harmondsworth Recreation Ground will be lost and that there will be a period when construction works around Harmondsworth will preclude the provision of an alternative space for these facilities but temporary [and then permanent] facilities would be provided after a few years. The Council is of the view that this is at best, a vague statement; there is no indication as to where the temporary facilities would be specifically located and 'a few years' is nebulous in the extreme.

17.8.6. In terms of the section on 'Managing potential effects', this refers to compensation which is subject to a separate consultation response from the Council which will not be repeated here.

17.8.7. HAL says that additional information is required on the users of community facilities likely to be displaced and their views on the proposals for displaced activities. The Council agrees that there is a pressing need for such engagement to take place and that a more detailed analysis is required of the users' equality profile and the disproportionate and differential effects on them.

17.8.8. As with the issue of air quality, noise and vibration have a huge potential for significantly adversely affecting and disrupting the lives and wellbeing of people, regardless of whether or not they have any protected characteristics. Once again, it is most unfortunate that HAL has significantly under played the highly significant noise impacts that Heathrow expansion would bring to many individuals and groups of people and HAL will no doubt be perfectly aware that the Council has specifically included the issues of noise, as part of its Strategic Environmental Assessment legal ground of challenge, which it is currently pursuing in the Court of Appeal.

17.9. Initial Assessment of Equality Effects

17.9.1. It is accepted that the identification of effects is an iterative process and therefore the effects identified in this chapter will be subject to further assessment in the final EqIA alongside the ongoing development of measures to mitigate potential effects.

17.9.2. However, the Council, nevertheless, has a number of comments to make on the assessment which HAL has undertaken to date, which is largely set out in tabular form.

17.9.3. Table 9.2 is headed, 'Initial findings: disability'. It is stated that the land permanently required to deliver the DCO Project will result in the displacement of Heathrow Special Needs Centre. Nothing has been said about the users of this Centre and their equality profile is unknown. This begs the question as to what steps HAL has actually taken to assess the specific needs of the cohort who use the Centre.

17.9.4. In paragraph 9.2.3, HAL states that no disproportionate or differential effects have been identified for equality groups under the protected characteristic of gender reassignment. This belies the fact that the assessment which has been undertaken by HAL does not reflect the differential impact with respect to noise and mental health for this particular group.

17.9.5. Table 9.4 is headed, 'Initial findings: race'. Once again, the assessment which has been undertaken does not reflect the disproportionate and differential impact with respect to noise and mental health for this particular group.

17.9.6. Table 9.5 is headed, 'Initial findings: religion and belief'. There is a reference to changes in noise exposure but unfortunately, the relevant data is missing.

17.9.7. In paragraph 9.2.12, HAL states that no disproportionate or differential effects have been identified for equality groups under the protected characteristic of sexual orientation. The assessment which has been undertaken by HAL does not, as with gender reassignment and race, reflect the differential impact with respect to noise and mental health for this particular group.

17.9.8. Finally, paragraph 9.3 deals with the issue of potential in-combination equality effects which references embedded mitigation and management measures that are set out in a series of tables. The Council has two particular comments to make in this respect. Firstly, it would like to see an analysis of the effects of the embedded mitigation and mitigation measures and not just a statement of what they are. Secondly, as far as race is concerned, a link needs to be added between noise and mental health as an effect.

17.10. Next Steps

17.10.1. The Council has no comments to make save for emphasising that it will carefully review and scrutinise the final EqIA when it is produced and will look to see if any of its comments, which form part of this consultation response, have been properly taken into account by HAL.

17.11. Statistics and Bibliography

Statistics on mental ill health in Lesbian, Gay, Bisexual and Transgender ("LGBT") + communities

17.11.1. The following is a list of some statistics which highlight different rates of mental ill health in LGBT+ communities when compared with the general population.

- People who identify as LGBT+ are more likely to have suicidal thoughts, and attempt suicide, than those who do not identify as LGBT+ (1–3)
- Mental health issues are more likely to affect young people who identify as LGBT+ than those who do not (8–11)
- People who identify as LGBT+ are at increased risk of both mental ill health and substance misuse (1,2,7)
- Ex-service personnel who identify as LGBT+ are more likely to have suicidal thoughts, and attempt suicide, than those who do not identify as LGBT+ (16)

Statistics on mental ill health in BAME communities

17.11.2. The following is a list of some statistics which highlight different rates of mental ill health in BAME communities when compared with the general population:

- Common mental health issues (which includes depression and anxiety disorders) are more common in Black and Black British women than among other ethnic groups; (17)
- Psychosis is more common among BAME groups; (17–20)
- Substance dependence is more common among Black and Black British men than among other ethnic groups; (17)
- Common mental health issues (which includes depression and anxiety disorders) are more common in young people of some minority ethnic backgrounds than others; (21)
- Young people from BAME and migrant backgrounds are more likely to

show developmental difficulties associated with psychosis and develop psychotic disorders later in life; (18,22)]

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18. Health Assessment

18.1. Context

18.1.1. Civil aviation is a growing industry which has potential impacts on public health, both at a global and local level. The relationship between environmental factors, public health and quality of life is well established. The largest study conducted on public health impacts of large airports (Passchier W, 2000) concluded that airports with the related infrastructure, businesses and industrial activities affect the health of the population living, travelling and working in the areas surrounding, or at, the airport itself.

18.1.2. Data on the largely negative, health effects of environmental factors, such as air and soil pollution, noise, accident risk, and landscape changes far outweighs any positive impacts. Information on the concurrent and cumulative impact of the factors like noise, pollution, accident risk might be lacking, but these impacts remain of interest and primary relevance for public health policy.

18.1.3. Integrated health assessments are required to assess the consequences of such expansion on the quality of life of people who might be exposed to these impacts to varying levels in a complex way on a short term or long term basis.

18.1.4. As Professor Evelyne de Leeuw, director of the Centre for Health Equity Training, Research and Evaluation at the University of New South Wales (UNSW), stated (WHO, 2018):

> *"There's nothing essentially healthy about an airport with all the noise, fumes, stress and overcrowding,"*

18.1.5. Heathrow airport is situated in the south of Hillingdon where the proposed infrastructure project, spanning a period of 30 years, will involve complex changes to the local area with major potential impacts on the lives of people living in areas around Heathrow. The impacts of the development will fall on the areas of population within Hillingdon where there are already higher than average levels of certain health conditions which are exacerbated by issues such as increasing pollution and noise.

18.1.6. There is significant representation, and, in some places, over-representation of different vulnerable groups in areas around Heathrow. The health of these vulnerable residents will be impacted through additional noise, deteriorations in air quality,

breakdown of social and community networks and neighbourhoods especially around the compulsory purchase zone and the wider property zone.

18.1.7. Based on the current and future health status, projected demography, and given the vulnerable populations living in the vicinity of Heathrow airport, the proposed Heathrow Expansion Consultation Plan is likely to cause further deterioration in the health and well being of these communities.

18.2. Impacts on public health

Air pollution

18.2.1. Air pollution is the largest environmental risk to public health in the UK (PHE, 2018) and poor air quality *significantly* affects people's health. The burden of air pollution in the UK in 2013 was estimated to be equivalent to approximately 28,000-36,000 deaths at typical ages and an associated loss of population life of 328,000-416,000 (COMEAP, 2018).

18.2.2. Although air pollution can be harmful to everyone, some people are more affected due to where they live, how they live their day to day lives, which determines their level of exposure or they might be impacted more due to their susceptibility. Groups which are most affected by air pollution include:

- Older people;
- Children;
- Individuals with existing long term conditions such as mental ill health, heart disease or respiratory disease;
- Pregnant women;
- Individuals and communities living in high pollution areas such as near busy roads;
- Low income groups;
- Those living in close proximity;
- Protected characteristics.

18.2.3. The different health effects from exposure to air pollution come about at every stage of life, from a foetus' first weeks in the womb all the way through to old age. The health impacts from air pollution are complex, range in severity of impact and in the following ways:

- a) Short term exposure (few hours or days) to elevated levels of air pollution can cause a range of health problems related to:
    - lung function and respiratory problems, e.g. exacerbations of asthma, cough, wheezing and shortness of breath;
    - increases in respiratory and cardiovascular hospital admissions;
    - increases in mortality due to respiratory and cardiovascular causes.
- b) Long Term exposure (over years or lifetimes) to air pollution has been shown to shorten lives, mainly due to:
    - circulatory illnesses like stroke, heart disease;
    - respiratory diseases;
    - lung cancer;
    - There is also emerging evidence for associations with:
    - low birth weight;
    - dementia;
    - type 2 diabetes.
    - Long term impacts and damage to health can be gradual and might not become apparent for many years.
- c) Mortality: Air pollution causes many thousands of deaths in the UK and is linked to cancer, obesity and heart disease as one of the biggest causes of ill health and early deaths. An increase of 10 µg/m3 in population-weighted annual average background concentration of $PM_{2.5}$ is assumed to increase all-cause mortality rates by a unit relative risk (RR) factor of 1.06 (COMEAP, 2018).

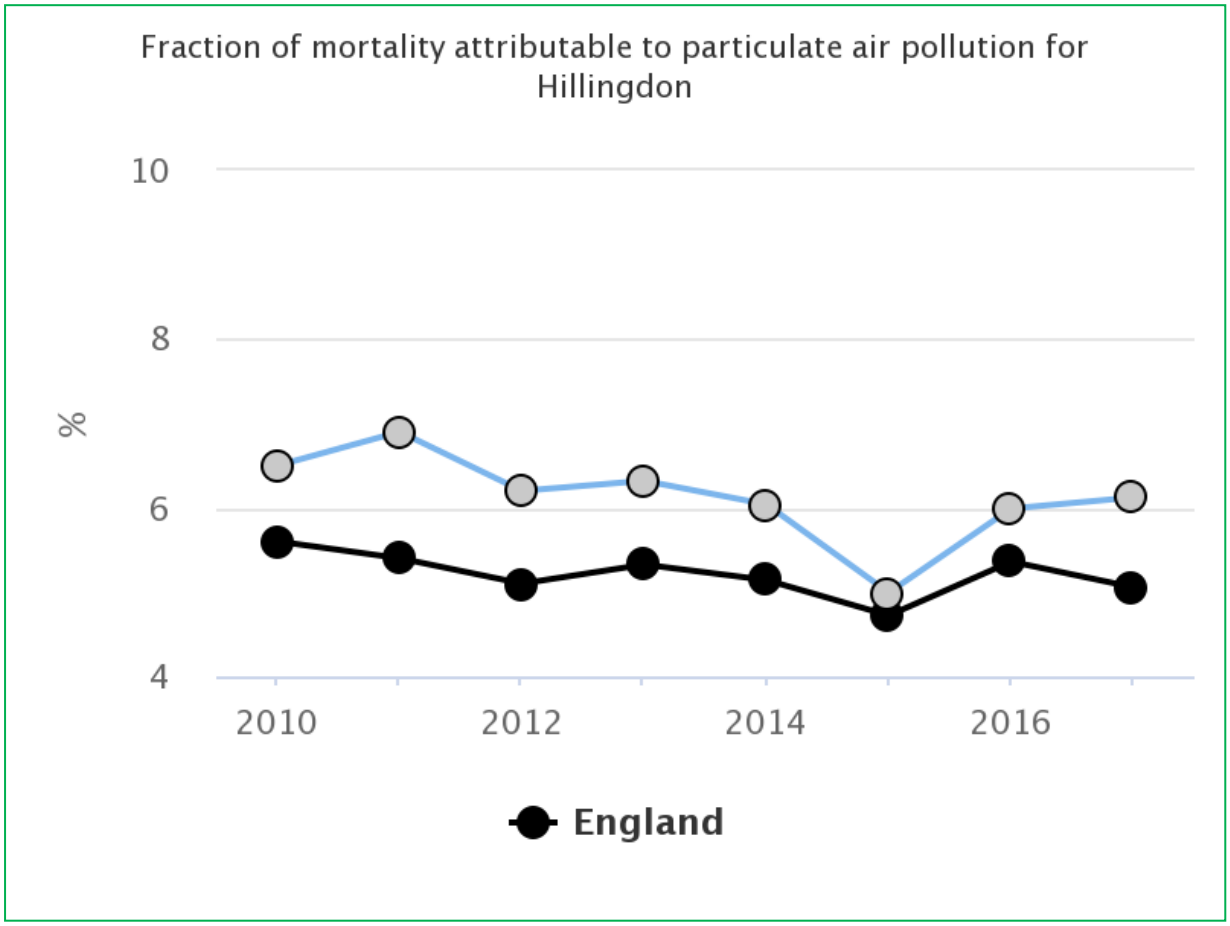
Health impacts of nitrogen dioxide and particulate matter exposure

18.2.4. The PEIR has provided assessments for nitrogen dioxide and particulate matter. In terms of health impacts, both pollutants are of significant concern in terms of health. Nitrogen Dioxide (NO_2), like small particulate matter (PM), is produced through combustion processes from petrol and diesel vehicles. The area around Heathrow already experiences levels of pollution above the EU air quality directive level and for a number of air pollutants, including $NO_{2;}$ it will be difficult to control with the increase in the local traffic and congestion during the development and afterwards due to the increase in the number of passengers.

18.2.5. There is a close relationship between exposure to high PM concentrations and

increased mortality or morbidity, both daily and over time. Air pollution is considered a contributory factor, rather than the sole, cause of death in most cases. Long term exposure to PM2.5 is known to cause the biggest impact on public health, in terms of increasing the age specific mortality risk, particularly from cardiovascular causes.

18.2.6. For example, the figure below shows that in 2017, 6.1% of total deaths in Hillingdon were attributable to particulate air pollution.



Source PHE Fingertips

Maternal and Child Health

18.2.7. The World Health Organization (WHO) has outlined how exposure to pollutants in the air threatens the health of children - the most vulnerable among us. Children are at greater risk than adults from the many adverse health effects of air pollution owing to a combination of behavioural, environmental and physiological factors. Children are especially vulnerable during foetal development and in their earliest years, while their lungs, organs and brains are still maturing. They breathe faster than adults, taking in more air and, with it, more pollutants. Children live closer to the ground, where some pollutants reach peak concentrations. They may spend much time outside, playing and engaging in physical activity in potentially polluted air. Newborn and infant children,

meanwhile, spend most of their time indoors, where they are more susceptible to household air pollution, as they are near their mothers while the latter cook with polluting fuels and devices.

Premature birth

18.2.8. A recent study showed that 18% of preterm births are associated with air pollution and work continues on quantifying the health impacts of fine particulate matter on babies before they are born. The WHO reports that premature birth is the leading cause of death among children younger than five years old, and can cause lifelong learning disabilities, visual and hearing problems. A number of factors have been identified in playing a part on premature birth, including poverty, infection, smoking and substance use, physical activity and maternal education. However, even with the report's limitations, it is still one of the first to argue that reducing air pollution could also be effective in reducing premature births across the world.

Impact of the DCO project

18.2.9. Most of the burden of disease of air pollution is due to long-term exposure and it is worth noting that the construction and expansion phase of this major development is going to be spread over 30 years, if it does not overrun.

18.2.10. During the construction phases of expansion, and its associated operational phases, the PEIR has reported the detailed pollution impacts in six community areas within Hillingdon; these are all subject to increases in pollution up to 2035 which is the limit of the assessment provided. This is considered to be an under-estimate of the impacts of the DCO project in terms of air pollution. More detail is available in Chapter 9.

18.2.11. In addition, the digging up of the historic landfill sites might further add to this through release of harmful particles and odours, thus increasing pollution levels in areas which already show disproportionately high levels of hospital admission rates from respiratory illness.

18.2.12. The consultation documents, in regard to air pollution, state that the levels of all pollutants will be maintained within the levels set by the Government to protect health. This approach is too narrow and limited to assess the full detrimental health impacts associated with the increases in pollution from this proposed development.

18.3. Noise

18.3.1. Noise, which can be defined as any unwanted sound, can cause profound negative effects on the health of individuals, including physical, psychological, social well- being and quality of life. Since the emergence of the aviation industry, aircraft noise has been a well recognised source of noise created through human activity which has adverse health impacts. The level of noise that comes from airports has an effect on people's health in the following ways:

- cardiovascular effects and an increased risk of cardiovascular disease;
- sleep disturbance, annoyance responses;
- interference with communication and hearing loss;
- learning acquisition, performance effects in children;
- psycho-physiological effects;

18.3.2. The noise surrounding an airport also causes a decline in the land values surrounding the area giving rise to its own stress and health implications.

18.3.3. Chronic exposure to aircraft noise manifests itself in different ways for different populations. Aircraft noise is one of the most noticeable environmental factors of airport operations, even though there are other types of noise sources involved in and around airport operations. Noise from aircraft taking off and landing, from aircraft taxiing and braking; and noise from aircraft engine testing are most dominant. There are residential locations in the vicinity of an airport where air traffic noise is a dominant source of environmental noise exposure.

Cardiovascular impacts of noise

18.3.4. There has been increasing acceptance over the past 10 years of the negative cardiovascular impacts linked to high levels of aircraft noise.

18.3.5. A study published in BMJ (2013) around London Heathrow airport examined risks for hospital admission and mortality for stroke, coronary heart disease and cardiovascular disease for around 3.6 million people living near London Heathrow airport (Hansell et al., 2013) in 12 London boroughs.

18.3.6. The study concluded that high levels of aircraft noise were associated with increased risks of stroke, coronary heart disease, and cardiovascular disease for both hospital admissions and mortality in areas near Heathrow Airport.

18.3.7. A similar US study found that people living in areas of the highest aircraft noise experienced a 3.5% higher rate of hospital admission due to a cardiovascular illness with 10dB increase in noise. Increased rates of prescription for cardiovascular drugs and antihypertensive drugs have also been linked to exposure to aircraft noise.

Impact of the DCO project

18.3.8. Aircraft noise levels are determined by the position of the runways and the flight patterns. The cumulative outdoor aircraft noise exposure in residential areas around large airports may exceed 60-70 dB(A). At the airport, noise from ground traffic can be considerable and will in particular affect airport workers.

18.3.9. As noted in the Noise Chapter, the flight patterns are not yet known and therefore the impact on health from noise are not yet capable of being properly quantified. This in turn means the health impacts of noise cannot yet be properly understood or quantified.

18.4. Additional sources of health impacts

Accidents

18.4.1. The current evidence based on severity and number of affected classifications suggests that accidents do occur in / around airports and the health consequences are always severe. Based on what happens and where, the whole population in the airport operations system is at risk, even if only a small number of people might actually be affected; the potential impact on the population living nearby, emergency services, local authority, NHS and other support services is never small.

Risk of infectious diseases

18.4.2. Air travel plays a significant role in the spread of infectious diseases (Kulmala, 2017) and airports contribute to the potential spread of disease owing to the high number of passengers from across the world coming together in enclosed spaces with high contact rates and several hand touch surfaces.

18.4.3. Hillingdon has a significantly high proportion of new cases of tuberculosis (25.0/100,000 compared with England's 9.19/100,000), which might be due to a combination of factors, but any efforts to keep the rates controlled are likely to be hindered through the introduction of, as yet, unknown transient populations during construction and expansion of Heathrow.

Dementia

18.4.4. As people live longer, the prevalence of conditions like dementia will increase in the population. A study by St. George's University of London showed links between the highest levels of nitrogen dioxide in London with an increased risk of dementia.

Cancer

18.4.5. Airports produce large amounts of toxic emissions that are a threat to human health, including nitrogen oxides and volatile organic compounds (VOCs) which have been linked with cancer. Research in the United States found VOCs generated by SeaTac airport in Chicago associated with increased rates of cancer in the vicinity of the airport. Researchers also found high numbers of cases of the brain cancer called glioblastoma. Normally fatal, it ends the life of only one in 25,000 people, but the city of SeaTac with a population of 23,000, has experienced at least five deaths from the disease.

Mental illness

18.4.6. The negative impacts of noise, traffic and air pollution on mental wellbeing are well known and are currently of great concern. In England, one in four people suffers a mental health problem each year, and research suggests that doctors should prescribe a two hour dose of nature per week to prevent and combat mental illness (White MP, et al, 2019); everything should be done to protect mental health and the natural environment.

Impact on the local health and social care services

18.4.7. The additional negative health impacts of the proposed development highlighted in this report are likely to increase the pressures on already stretched primary care services, secondary care services, urgent care and mental health and well being services, and social care through short term and long term increases in morbidity and mortality. This impact must be quantified in monetary terms to ensure the full economic impacts of this proposal are properly accounted for.

18.5. Understanding the impact on Hillingdon

18.5.1. The distribution and characteristics of Hillingdon's population must be properly understood before assessing the diverse ways in which the populations and communities settled in different parts of the borough will be affected through the

proposed development. Airports have long been seen as negative forces for community health through noise and air pollution and diverse environmental impacts in various settings (Passchier W, 2000)

Population

18.5.2. Hillingdon has the 12th largest population out of 32 London boroughs, and 66% of the borough's overall population is concentrated in more densely populated areas around the proposed development.

18.5.3. According to The Office for National Statistics (ONS) population estimates for 2019, there are 312,600 people living in Hillingdon. Out of these;

- 22,900 (7.3 per cent) are aged 0 to 4 years;
- 46,100 (14.7 per cent) are aged 5 to 15 years;
- 201,950 (64.6 per cent) Hillingdon residents are of working age (16 to 64 years);
- 21,950 are aged 65 to 74 (7 per cent);
- 19,700 (6.3 per cent) are aged over 75.

Population Projections

18.5.4. Data from the 2016-based Sub-National Population Projections (ONS, published May 2018) shows the projected population increase for Hillingdon of 14% from 312,600 in 2019 to 357, 747 in 2039.

18.5.5. Age bands are expected to change between 2019 and 2039 as follows:

- 0-4 decreased by 640;
- 5-18 increase by 4,402;
- 19-24 increase by 5,039;
- 25-39 decrease by 2,365;
- 40-64 increase by 15,189;
- 65-74 increase by 9,843;
- 75-84 increase by 11,764;
- 85-89 increase by 2,287;
- 90+ increase by 2,577.

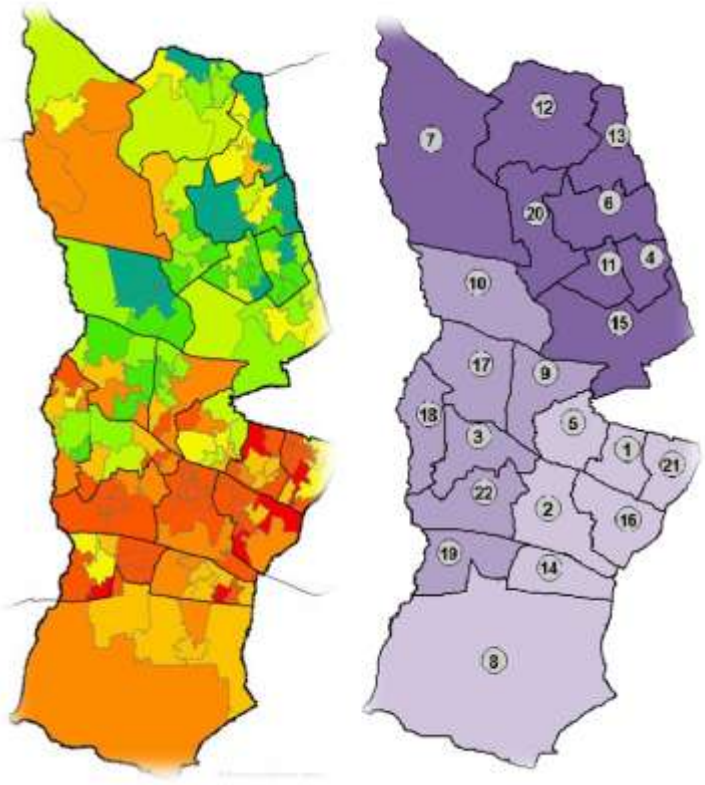
18.6. Ethnicity

18.6.1. Hillingdon is an ethnically diverse borough with 48 per cent of residents from black and minority ethnic groups. Population projections for Hillingdon suggest that BAME groups are increasing as a proportion of the population to 50.4% by 2021, with the corresponding reduction in the White ethnic groups. This is important because specific population groups have higher prevalence of certain conditions and changes in the numbers of those populations can indicate increase or decrease in demand for certain treatments and care.

18.7. Deprivation

18.7.1. Hillingdon is ranked number 23 out of 33 London Boroughs (including City of London), and number 153 out of all 354 authorities in England. Furthermore, 16% children and 15.7% older people live in income deprived homes.

18.7.2. The graphics below shows variation in IMD deprivation in Hillingdon by electoral ward.



1. Barnhill	25.6
2. Botwell	28.0
3. Brunel	18.8
4. Cavendish	7.6
5. Charville	17.6
6. Eastcote & East Ruislip	7.7
7. Harefield	18.9
8. Heathrow Villages	22.2
9. Hillingdon East	16.1
10. Ickenham	5.9
11. Manor	7.5
12. Northwood	10.6
13. Northwood Hills	11.7
14. Pinkwell	23.5
15. South Ruislip	12.4
16. Townfield	29.3
17. Uxbridge North	14.5
18. Uxbridge South	15.8
19. West Drayton	26.5
20. West Ruislip	9.8
21. Yeading	26.1
22. Yiewsley	27.2

18.8. Health status of Hillingdon's population - Life span and inequalities

18.8.1. In Hillingdon, both men and women are expected to live longer (80.8 years, and 83.8

years respectively) than the averages for England (79.5 years for males and 83.1 years for females) [Life expectancy, 2015-2017]. However, life spans vary within the borough by geographic areas and by socioeconomic status.

18.8.2. Joint Strategic Needs Data (JSNA) for the borough shows a difference of around eight years between the life expectancies of people living, for example, in Botwell ward compared to people living in Eastcote and East Ruislip ward. Socio-economic circumstances also have a complex relationship with how long people live and in Hillingdon there's a difference of 7.6 years and 5.6 years for men and women respectively, between those in the most affluent and the least affluent deciles (tenth of the population). The majority of the gap in life expectancies between the least deprived fifth and most deprived fifth population of males and females living in Hillingdon is driven by the three major causes of death: circulatory diseases, cancers and respiratory illnesses.

18.8.3. The population of Hillingdon is ageing and living longer which means that there will be a higher proportion of long term conditions. Years spent in good health are not increasing at the same rate as life expectancy. Over half of the people aged 65 and over are diagnosed with multiple long term conditions, such as dementia, which increases dependency on care and support. Therefore, the Council and the NHS are working together to maintain focus on keeping people well for longer.

18.9. Disease prevalence's

18.9.1. The overall burden and distribution of various common long term conditions in Hillingdon's population is described below. The most recent available figures have been used from the public health data and the JSNA to represent the current picture.

Circulatory Conditions

18.9.2. Circulatory conditions are those which involve interruptions, blockages and problems in blood circulation through your heart and blood vessels; such as heart disease or stroke. Prevalence of these illnesses and the related complications in the local population determines the burden on local health and social care services.

Coronary Heart Disease (CHD)

18.9.3. In Hillingdon, the estimated prevalence of Coronary Heart Disease (CHD) is high at 9.1% compared with 7.4% which is the average for England. GP registers identified 7,129 people (2.3%) with CHD which is a lower detection rate than England (3.1%) but

higher than London.

18.9.4. For example, in Hillingdon, emergency hospital admissions due to circulatory causes are high in the south of the borough in the wards around Heathrow Airport. The figure below shows disproportionately high rates of hospital admissions due to heart attack. Early deaths from circulatory causes are also high in these wards.

18.9.5. Emergency hospital admissions for Myocardial Infarction (heart attack) are presented below, shown as standardised admission ratio - 2013/14 - 17/18, indirectly standardised ratio - per 100.

Area	Count	Value	95% Lower CI	95% Upper CI
England	355,962	100.0	99.7	100.3
Hillingdon	1,632	105.3	100.3	110.6
Pinkwell	90	146.7	117.9	180.3
Barnhill	90	145.3	116.8	178.7
Heathrow Villages	90	145.0	116.6	178.2
West Drayton	104	143.2	117.0	173.5
Botwell	95	134.0	108.4	163.8
Townfield	89	126.3	103.0	157.9
Yeading	72	126.6	99.0	159.6
Yiewsley	82	126.5	100.6	157.0
Charville	87	124.4	99.6	153.5
Uxbridge South	64	123.1	94.8	157.2
Brunel	81	113.4	90.0	140.9
Hillingdon East	75	109.5	86.1	137.1
Harefield	53	102.1	76.5	133.6
South Ruislip	63	88.0	67.6	112.6
Uxbridge North	64	86.3	66.4	110.3
Manor	59	81.7	62.1	105.4
Ickenham	66	81.2	62.8	103.3
West Ruislip	63	79.1	60.7	101.3
Northwood Hills	62	76.0	58.4	97.4
Northwood	62	75.7	58.0	97.0
Cavendish	59	73.6	56.2	95.1
Eastcote and East Ruislip	63	67.0	51.5	85.8

Heart Failure (HF)

18.9.6. The overall estimated rate of heart failure is 1.2% which is lower than England's 1.4.%. In 2017/18 1,668 (0.5%) patients were recorded on GP registers with heart failure, which was lower than England (0.8%) but similar to London's rate (0.5%). However, the rate of hospital admissions for Hillingdon residents due to HF is significantly higher than England.

Stroke/Transient Ischaemic Attack (TIA)

18.9.7. Stroke and TIAs (mini-stroke) are estimated to affect 3.47% residents aged between 55-79 years in Hillingdon, compared with 3.72% in England. In 2017/18 there were 3,653 people (1.2%) on GP registers who have previously suffered a stroke which is

lower than England's (1.8%). In the same period there were 362 hospital admissions recorded due to stroke.

18.9.8. Early mortality rates due to stroke for people living in Hillingdon are statistically similar to England. However, early mortality from stroke for men is significantly high compared with England.

Peripheral Arterial disease (PAD)

18.9.9. Peripheral arterial disease (PAD) is a common condition, in which a build-up of fatty deposits in the arteries restricts blood supply to leg muscles. The estimated prevalence of PAD for Hillingdon (1.19%) is high compared with England's 1.00%.

Diabetes

18.9.10. There are many published studies showing some degree of association between PM or traffic related air pollution and diabetes mellitus. There are 18,254 people with diagnosed diabetes (type 1 or type 2) over 16 years old (7.4%) in Hillingdon while the estimated rate is 8.7%, which is higher than the estimated rate for England (8.5%). In addition, there are a further 27,852 people (11.8%) in Hillingdon at increased risk of developing diabetes (i.e. non-diabetic hyperglycaemia). This means that 20.0% of the population in NHS Hillingdon CCG are estimated to have diabetes, or are at high risk of developing diabetes (NCVIN, 2019).

18.9.11. The level of variation in rates of diabetes by GP practices in Hillingdon shows that. The GP practices serving residents living near the airport in the south of the borough show the highest rates (12.6%) compared with the national average 6.8%.

18.9.12. Diabetic patients have been shown to be more susceptible to air pollution induced cardiovascular mortality and morbidity. Among people with diabetes in NHS Hillingdon CCG, the risk of a stroke was 55.6% higher and the risk of a heart attack was 78.0% higher compared to people without diabetes during the one-year follow up of the 2014/15 audit.

18.9.13. Given the nature of already established links between air pollution and cardiovascular disease, links with metabolic disease and its pathways are likely to become clearer with further research. The societal costs and economic costs of diabetes, obesity and the additional risk of complications and early deaths (Rajagopalan S, 2012) due to air pollution will be staggering given its ubiquitous nature, and provide persuasive rationale for limiting exposure to air pollution.

Respiratory Diseases

18.9.14. Inhalation of particulate pollution can have adverse health impacts and there is no understandable safe threshold below which there are no adverse impacts. Exposure to high levels of PM (e.g. during short term pollution episodes) can exacerbate lung conditions, significantly affecting quality of life, increase deaths and hospital admissions.

Chronic Obstructive Respiratory Disease (COPD)

18.9.15. COPD rates are estimated at 2.1% for Hillingdon compared with 3.0% for England. The GP recorded prevalence in Hillingdon has been increasing. In 2017/18, 3,970 people (1.3%) were recorded as having COPD, which was higher than the London average (1.1%). Cost of COPD treatment, care and hospital admissions is high for NHS and non-NHS services. Emergency hospital admissions for COPD are specifically high in electoral wards adjacent to Heathrow airport.

18.9.16. Emergency hospital admissions for Chronic Obstructive Pulmonary Disease (COPD) are shown below as standardised admission ratio: 2013/14 - 17/18, as indirectly standardised ratio - per 100.

Area	Count	Value	95% Lower CI	95% Upper CI
England	613,747	100.0	99.7	100.3
Hillingdon	2,617	101.1	97.3	105.1
Townfield	197	175.8	152.1	202.1
West Drayton	179	153.4	131.7	177.6
Harefield	134	151.3	126.8	179.2
Yiewsley	158	148.1	125.9	173.0
Botwell	164	143.9	122.6	167.7
Pinkwell	134	136.9	114.7	162.1
Barnhill	135	136.2	114.2	161.2
Heathrow Villages	136	135.6	113.6	160.4
Yeading	111	125.3	103.1	150.8
Brunel	142	119.1	100.4	140.4
Uxbridge South	88	102.3	82.1	126.1
West Ruislip	134	98.5	82.5	116.6
Charville	111	95.4	78.5	114.9
South Ruislip	111	91.5	75.2	110.2
Hillingdon East	97	84.2	68.2	102.7
Cavendish	112	82.0	67.5	98.7
Uxbridge North	99	79.0	64.2	96.1
Manor	94	78.1	63.1	95.5
Northwood Hills	83	59.1	47.1	73.2
Northwood	81	56.6	44.9	70.3
Eastcote and East Ruislip	82	50.8	40.4	63.1
Ickenham	33	23.6	16.3	33.2

Asthma

18.9.17. In Hillingdon, 9.11% of the total population was estimated to have asthma compared with 8.96% in London and 9.13% in England (PHE, 2019). However, on GP registers 15,484 (5.0%) people of all ages were recorded as having the condition which means

over 40% of people with asthma have not been diagnosed. The rates of hospital admissions and emergency admissions due to asthma have been significantly high in Hillingdon.

Cancer

18.9.18. As stated above, airports produce large amounts of toxic emissions that are a threat to human health, including nitrogen oxides and volatile organic compounds (VOCs) which have been linked with cancer. In Hillingdon, there were 5,764 residents (1.8%) recorded on GP registers as living with cancer. In 2016/17 There were 1,227 new cases of cancer (398 per 100,000) compared with 348 per 100,000 in London and 521 per 100,000 in England. While cancer deaths have been decreasing, considering the impact of this disease on individuals and families affected, preventing the number of new cases remains a priority.

18.9.19. Hillingdon's rates of mortality from lung cancer (2015-2017) were better than the average for England and the local objective is to prevent the 'preventable' deaths through reducing the annual occurrences of lung cancer. Scientific studies have linked long-term exposure to air pollution with increased lung cancer mortality. Therefore, the primary focus of the Council is to prevent long term exposure to air pollution for residents living in areas of high exposure. However, short-term episodes of elevated levels of air pollution will also require the application of some interventions to prevent other problems like bronchitis and illnesses associated with poor lung function, for example, by using the daily air quality index and awareness-raising to reduce individuals' exposure.

Mental illness

18.9.20. In Hillingdon, there are 41,289 people (17.4% residents aged 16 and over) who are estimated to be suffering common mental disorders, which is statistically similar to the national rate (16.9%). The estimated rate of depression in Hillingdon's population is 11.5% which is lower than 15.0% for England. Hillingdon's rate of suicide (11.2/100,000) is slightly higher to England's rate (9.6/100,000) and is the second highest in London. The recorded prevalences of depression and long term mental illness are low but increasing.

18.9.21. Steps are being taken to improve support services through GP neighbourhoods in local areas. Continuation of improvements and enhancement of the local living conditions including access to natural green areas can only further improve mental health, considering a growing body of evidence which indicates that greater exposure to

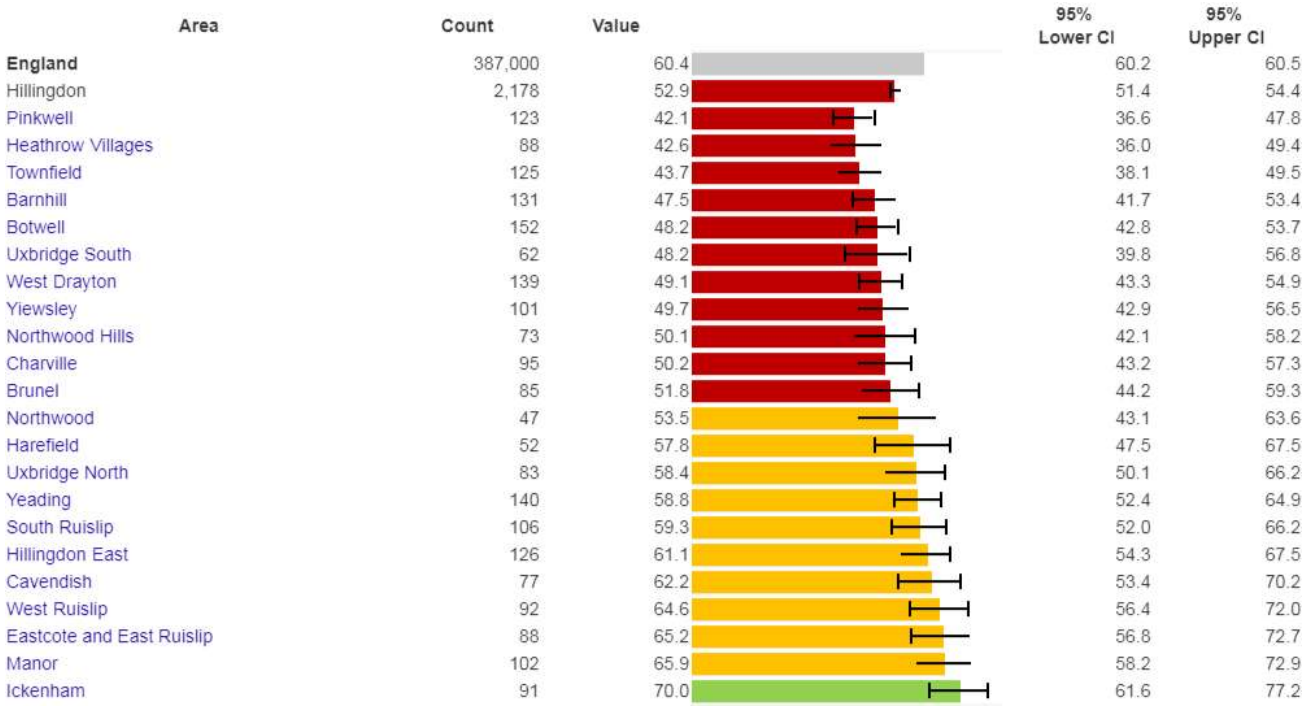
natural environments (spending at least 120 minutes a week in nature) is associated with better mental health.

Impacts on children

18.9.22. In Hillingdon, children are particularly vulnerable from the proposed development because:

- Population of children in Hillingdon (ages 0-4, 5-14 and under 19 years) is significantly higher than the England average; children's population in areas around the proposed development is even higher;
- Hillingdon has a significantly higher proportion of women of childbearing age than England, a significantly higher rate of fertility, and births to non-UK parents as a percentage of total live births is also significantly higher than England;
- Hospital admissions and emergency admissions due to asthma are significantly higher than the national averages;
- A&E attendances and elective admission rates are both high for children aged under 18; and
- Proportions of premature birth and low birth weight babies are similar to England's average but in certain parts and specific populations, the rates are disproportionately higher.

18.9.23. Child development at age 5 is poorer in areas around Heathrow as compared with the rest of Hillingdon as shown on the graph below:



Area	Count	Value	95% Lower CI	95% Upper CI
England	387,000	60.4	60.2	60.5
Hillingdon	2,178	52.9	51.4	54.4
Pinkwell	123	42.1	36.6	47.8
Heathrow Villages	88	42.6	36.0	49.4
Townfield	125	43.7	38.1	49.5
Barnhill	131	47.5	41.7	53.4
Botwell	152	48.2	42.8	53.7
Uxbridge South	62	48.2	39.8	56.8
West Drayton	139	49.1	43.3	54.9
Yiewsley	101	49.7	42.9	56.5
Northwood Hills	73	50.1	42.1	58.2
Charville	95	50.2	43.2	57.3
Brunel	85	51.8	44.2	59.3
Northwood	47	53.5	43.1	63.6
Harefield	52	57.8	47.5	67.5
Uxbridge North	83	58.4	50.1	66.2
Yeading	140	58.8	52.4	64.9
South Ruislip	106	59.3	52.0	66.2
Hillingdon East	126	61.1	54.3	67.5
Cavendish	77	62.2	53.4	70.2
West Ruislip	92	64.6	56.4	72.0
Eastcote and East Ruislip	88	65.2	56.8	72.7
Manor	102	65.9	58.2	72.9
Ickenham	91	70.0	61.6	77.2

18.10. Conclusion

18.10.1. The health of the population of Hillingdon is varied and there are further differences within the borough based on geographic and socio-economic status. The Council is working with local NHS and non-NHS partners to improve the health of its residents, as measured by improvements in performance against public health indicators.

18.10.2. The proposed Heathrow development with its potentially significant negative impacts on the health of Hillingdon's population raises substantial concern on many fronts including the significant destruction of the natural environment, community and social networks, the extent of which predict health behaviours, health status, mortality, with an effect size of similar magnitude to stopping smoking.

18.10.3. Based on the current and future health status, projected demography, and given the vulnerable populations living in the vicinity of Heathrow airport, the proposed Heathrow Expansion Consultation Plan has the potential to inflict a massive deterioration in the health of the local population. The determination of the exact impacts on health cannot yet be quantified; this is in part due to the lack of information in the voluminous and inaccessible format of the consultation documentation and secondly, because insufficient consideration has been given to the importance of protection of Hillingdon's natural environment and biodiversity which is also an important resource for protecting and improving the health and well being of Hillingdon's local residents.

18.10.4. The relationship between environmental factors and public health, infringements on the quality of life, such as sustained air pollution and noise exposure, have the potential of causing clinically observable diseases in the long term. Given the distribution of a variety of other factors in Hillingdon's population such as individual susceptibility, social-economic status, life style, and the simultaneous exposure to a variety of environmental factors, this development has the potential to impact negatively on an already vulnerable population. It should be noted that these comments relate to the population in Hillingdon only; the full impacts on health across the wider area on which the proposed development impacts must be properly understood and quantified.

19. Habitats Assessment

19.1. Appropriate Assessment

19.1.1. The consultation document does not contain an appropriate assessment but provides a further screening report that confirms the project would have a likely significant effect on European Designated Conservation Sites.

19.2. Design of the Scheme

19.2.1. One of the principle concerns about the approach to the appropriate assessment is that major elements of the scheme have been designed and settled on prior to the knowledge of the impacts on European Sites; for example, the decision to extend Terminal 5, requiring the destruction of a natural river corridor that supports the Southwest London Waterbodies Site, has already been taken prior to knowledge of the impacts on European Sites.

19.2.2. It is premature to rule out impacts especially given the valuable nature of this corridor and the fact that Natural England has previously identified connections between the Southwest London Waterbodies and lakes further north in the Colne Valley (Broadwater Lake in particular). The Council is therefore of the opinion that there are likely significant effects on the Southwest London Waterbodies from the hydrological impacts on several watercourses that will be diverted under the new runway in artificial channels.

19.2.3. Settling on the design of the scheme prior to understanding the impacts is not compliant with the Habitats Directive. There appears to have been no assessment of alternative scheme designs to reach the conclusion that the one presented is the only option available.

19.3. Growth

19.3.1. The lack of transparency regarding the growth associated with Heathrow Expansion, i.e. the volume of additional development in the area allowed for in the economic assessment, but not forming part of the DCO, makes it difficult to understand how the subsequent appropriate assessment can be comprehensive.

19.3.2. The loss of open space around the airport, combined with the baseline level of housing growth and that associated with expansion, is likely to increase pressure on

the natural environment beyond the current boundaries; for example, many people along the M4 corridor (Hayes and West Drayton for example) will have restricted and reduced access to open space. Cranford Park and Harmondsworth Moor will be heavily constrained and far from tranquil, meaning options further afield may be sought; given this would invariably mean a car journey, then the Southwest London Waterbodies would become entirely unsustainable. This puts additional pressure on this European Site.

19.3.3. This can only be adequately assessed once clarification of the true scope of Heathrow Expansion is disclosed.

20. Compensation and Compulsory Acquisition

20.1. Introduction

20.1.1. The Council notes that HAL has at the outset mentioned that at the heart of the expansion project is its commitment to being a good neighbour to its local communities, as well as to those further afield and to the natural habitats around the airport.

20.1.2. The Council contends that HAL has already failed in this commitment by the cavalier manner in which it has approached the issue of Heathrow expansion in Heathrow Villages. It has at all times acted in a manner which strongly suggests that such expansion is already a ''done deal''. A number of Hillingdon residents have been visibly upset by the messages conveyed by HAL which has made them fearful of losing their homes and communities which have been established over a number of years. This at a time when the legal challenges in the Courts are still ongoing and there remains the possibility that the Airports NPS may be quashed.

20.1.3. It is also noted that at the time when the then Secretary of State for Transport made his announcement in October 2016 that the Government would be proceeding with the North West Runway option, he promised a set of ''world class compensation measures''. The proposals for mitigation and compensation, as set out in the consultation documents, are vague and ambiguous in a number of respects and even when they are further developed, it is the Councils view that they will still fall well short of this promise.

20.1.4. The Council will, for ease of reference, adopt HAL's headings in making this consultation response.

20.2. Types of mitigation

20.2.1. HAL states that a wide variety of mitigation measures can be used to assist with avoiding, minimising and managing the impacts of the expansion project and it specifically refers to the three categories of 'Best practice', 'Designed in' and 'Controls'.

20.2.2. With regard to Best practice, reference is made to a Code of Construction Practice as a means of ensuring that many of the potentially negative impacts of construction are

managed by HAL. The Council has had experience of such a Code through its dealings with HS2 Ltd and has found it to be a nebulous document and there is uncertainty in relation to how it can be properly enforced. The Council is therefore justifiably sceptical as to how effective HAL's Code of Construction Practice will actually be.

20.3. Proposed mitigation measures: growing sustainably

20.3.1. HAL states that it will re provide community facilities and recreational spaces and routes which will be lost to expansion but provides no specific details and further and better information is therefore required in this respect e.g. the timescales for implementation, is there to be a separate process of consultation with those affected and what will the precise location of the new facilities be.

20.3.2. Further and better particulars are also required of all the other proposed mitigation measures outlined in this section [with the exception of noise which the Council will respond to separately below]. As they currently stand, it is simply not possible for the Council to provide any meaningful comments at this stage.

20.4. Compensation

20.4.1. The consultation document breaks this down into the following three elements:

- Property Policies;
- Noise Insulation Schemes;
- Community Fund.

20.5. Interim Property Policies

20.5.1. It is accepted that in order to construct and operate an expanded Heathrow, HAL will need to acquire areas of land which currently include residential, commercial and agricultural properties. Such properties will either be located in the CPZ or the WPZ. There may also be other areas of commercial or agricultural land which may be needed for associated infrastructure, environmental mitigation and other uses to facilitate the project which sit within the ''draft DCO limits''. Little or no information is provided in relation to these limits in the consultation documents.

20.5.2. HAL estimates that there are approximately 760 residential properties within the CPZ and approximately 5,500 residential properties within the WPZ that will need to be acquired and that the interim policy therefore applies to them.

20.5.3. HAL states that it recognises the uncertainty and impact that it's proposals may have on local communities and that it will therefore work with owners to acquire properties by negotiated agreement, rather than compulsorily, wherever practicable and that this will be done through a 'Home Purchase Bond'. This initiative is welcomed but HAL should ensure that they fund any advice which homeowners may require as part of the negotiation process as they may not fully understand the implications of HAL's proposals before committing to selling their properties.

20.5.4. HAL states, in its consultation document, that it will be working with owners in the lead-up to its application for DCO to agree compensation. It is the Council's firm view that an approach should only be made by HAL to owners in circumstances where there is reasonable certainty that its DCO application is likely to be approved. Otherwise, owners will suffer unnecessary distress and anxiety at the prospect of losing their homes, only to subsequently find that this may not be happening after all. This is particularly the case where their properties are likely to be compulsorily acquired on the basis that a negotiated agreement cannot be reached. This will be a very stressful process for owners.

20.5.5. The principle of Enhanced Compensation Offers is welcomed although the Council does not agree with the 'cut off date' of 17 December 2013 and believes that it should be 26 October 2016 instead. This was the date on which the then Secretary of State for Transport made a public announcement that the Government would be proceeding with a North-West Runway scheme at Heathrow. It is submitted that the date of 17 December 2013, which was when the scheme was short-listed, is too uncertain as it was still possible at this stage that the Government could prefer one or other of the two short-listed options.

20.5.6. HAL proposes that the interests of private landlords and social housing landlords [e.g. local authorities and housing associations] who own a property within the CPZ will not generally be eligible for the Enhanced Compensation Offer and they will instead be entitled to apply for compensation in accordance with the Statutory Compensation Code. The Council does not agree with this proposal. A homeowner is a homeowner, regardless of their status, and they should all be treated the same by being eligible for Enhanced Compensation Offers.

20.5.7. With regard to the Home Purchase Bond proposal, the Council contends that home owners within both the CPZ and the WPZ should only be required to sell their properties to HAL once development consent for the Project has been granted. This brings certainty and to require a sale at any earlier stage would be premature and in

the case of at least some homeowners, highly unsettling.

Interim Property Hardship Scheme

20.5.8. The Council agrees with the principle of HAL having an Interim Property Hardship Scheme in place and it is pleased to note that it is intended to apply to owner-occupiers of residential, commercial and agricultural properties alike, subject to the eligibility criteria being satisfied. However, the Council does not agree that the 'cut-off date' should be 17 December 2013 in terms of the 'No prior knowledge' test and submits that it should be 26 October 2016 instead for the reasons set out above.

20.5.9. The hardship test, as set out, relates to an individual's circumstances and does not relate to the extent of blight i.e. the diminution in value of property. This may have the potential undesired effect of reducing the number of successful applicants.

20.5.10. In paragraph 4.2.6 of the consultation document headed, 'Interim Property Hardship Scheme', reference is made to the Data Protection Act 1998. This is out of date and should be replaced by 'GDPR' and the 'Data Protection Act 2018'. References to out of date legislation is not helpful to anyone.

20.5.11. It is submitted that the Panel should be wholly independent and representatives from Heathrow and one airline should be excluded in order to preserve the integrity of the process. Furthermore, consideration should be given to introducing some form of appeal mechanism for unsuccessful applicants. At the appeal stage, applicants should be given the ability to appear before the Panel, either in person or by way of representation.

20.5.12. There should be a degree of flexibility over the criteria used to assess re-applications, otherwise applicants may be put off from reapplying, on the basis that if the same criteria are used, it is likely that the same decision will be reached.

Interim Commercial Property

20.5.13. It is noted that approximately 300 commercial properties are within the CPZ and beyond and will therefore need to be acquired. This consultation document distinguishes between small and large commercial properties.

20.5.14. HAL states that it may agree terms to offer financial support in advance of acquiring commercial properties to assist with relocation of a business. This initiative is welcomed and should be applied by HAL as much as possible, particularly in relation to smaller businesses, as they are much more likely to struggle as a consequence of HAL's

expansion plans.

20.5.15. HAL's proposals, in this part of its consultation, closely mirror those set out earlier in the residential property part so the comments which the Council has already made above apply equally here. However, it is regrettable that the Enhanced Compensation Offer will only be made available to small commercial property owners and not large commercial property owners who will only be entitled to statutory compensation. This should be corrected so that there is a level playing field for all concerned.

20.5.16. Finally, HAL states that independent, small businesses based in the WPZ may be eligible for discretionary support during the construction period where disruption could or does occur. This is at best a vague and ambiguous statement and HAL should provide further details and information in support of it.

Interim Agricultural Land and Property

20.5.17. HAL estimates that there is approximately 250 hectares of agricultural land within the CPZ alone that will need to be acquired.

20.5.18. HAL's expansion proposals will cause a great deal of uncertainty and anxiety for farmers and agricultural landowners, some of which will have been established for many years. It is noted that HAL has developed an Enhanced Compensation Offer but LBH is concerned that it will only be made available to those qualifying owners who do not object to the acquisition of their agricultural unit as part of HAL's application for a DCO for the Project. It is contended that the imposition of such a condition is very onerous and unfair and it should therefore be abandoned. This condition does not apply to residential and commercial property owners.

20.5.19. HAL once again states, in this part of the consultation, that, as a discretionary measure, it may agree terms to offer financial support in advance of acquiring the agricultural property and land in order to assist with relocation of an agricultural enterprise. It is submitted that HAL should ensure that it exercises this discretion consistently and fairly.

20.6. Noise Insulation Schemes

20.6.1. It is noted that HAL has devised three specific schemes and in this part of its consultation, it sets out certain technical information such as noise contours and action levels [including noise metrics] in support of its proposals. It is most unhelpful that HAL has sought to provide such a technical analysis as it will simply not be

understood by a significant number of consultees. Greater efforts should have been made to provide this information in a simpler, more easy to understand manner.

20.6.2. HAL states that the noise insulation schemes will open in stages and it asserts that, *''More details of the timing of rolling out these Schemes will be provided in our DCO application''.* Such a statement is ill thought through and will provide little or no comfort to thousands of residents whose lives will be severely impacted by the very significant increase in noise levels generated by an expanded Heathrow.

20.6.3. Most worrying of all, HAL states that

> *"The flight path design for a 3-runway Heathrow is evolving and will continue to develop until after our 2022 consultation on airspace design. Until then, we need to use approximate flight paths to provide indications of expected noise contours and we will publish updated contours at stages as the design evolves".*

20.6.4. This approach is completely unacceptable. HAL will no doubt be aware that the Council and its partners brought a judicial review challenge on a number of grounds, one of which was based on the Strategic Environmental Assessment Directive. It is pursuing this ground in a hearing before the Court of Appeal in October 2019. One of the Council's complaints is that only indicative flight paths have been used to show the overall likely numbers of people who would be significantly affected by airport noise for the purposes of strategic decision-making.

20.6.5. This failing has been compounded by HAL, who not only appears to be basing its proposed insulation schemes on indicative/approximate flight paths, but says that it will also be providing more details of the rolling out of these schemes at its DCO application stage. This hardly inspires confidence and will be leaving a number of homeowners, whose properties will not be acquired by HAL, compulsorily or otherwise, with an unnecessarily long and anxious wait to see if they will be protected by the very significant increases in noise caused by Heathrow expansion.

20.6.6. A further consideration is that it would be helpful to know what HAL's approach will be in circumstances where homeowners refuse to have noise insulation works carried out to their homes for fear of intrusion, disruption and damage.

20.6.7. Moreover, what if the noise insulation is completed in properties but it does not work effectively in practice? HAL does not know what the true noise impacts of an expanded Heathrow are going to be and if further noise insulation works are required to be undertaken, how will they be assessed and funded?

20.7. Community Fund

20.7.1. The principle of establishing such a Fund is a step in the right direction but there are a number of important issues which still need to be resolved if it is to benefit the community.

20.7.2. The ANPS requires a Fund to be of a size that is proportionate to the environmental impacts of the expansion project. Given the very significant environmental harm which will be caused, the Fund should comprise of tens of millions, if not billions, of pounds.

20.7.3. In addition to the draft guiding principles which are set out in the consultation document, the Council is firmly of the view that the Fund should cover any shortfall in the provisions of services, whether they be public or private, which have arisen as a direct consequence of expansion. LBH also considers that the Fund should be used to support the enhancement of any services which are required as a direct result of the airport having grown in size.

20.7.4. The Fund should apply to all local authority areas affected by expansion and in particular Hillingdon which will be most affected in the south of its borough. The Fund should cover the whole of Heathrow Villages and also any ancillary areas impacted directly, or indirectly, by expansion.

20.7.5. It is of vital importance that the governance and oversight of the Fund is effectively managed at all times. Communities and local authorities should have a big say in how the money is to be spent and HAL should not be allowed to make any final decisions in this respect. It may be beneficial to set up a Community Fund Management Board with a seat at the table for all relevant stakeholders who will be involved in decisions to allocate funding based on established criteria; this will help in preventing arbitrary and inconsistent decisions being made.

20.7.6. In terms of the source of the funding, the Council is of the view that this should come solely from the very significant profits which HAL is going to make from an expanded Heathrow, together with an airport charge paid by the airlines. However, this should not be recouped by charging passengers extra to travel and the idea of a passenger levy should be abandoned as it would be unfair to penalise poorer passengers and those who did not want the airport to be expanded in the first place.

21. Additional Topics

21.1. Waste

21.1.1. The Council forms part of the West London Waste Authority (WLWA). The majority of the construction and operational waste will therefore fall within the waste apportionment figures for the WLWA. The waste impacts can broadly be separated into two categories, construction and operation.

Construction

21.1.2. The information on construction waste arisings set out in the consultation quite clearly cannot be confirmed at this stage due to the lack of sufficient information; even the estimations cannot be treated with any confidence particularly as there have been no intrusive land contamination studies which will dictate the amount of material needing to be taken offsite.

21.1.3. The project will require the excavation of numerous historic landfill sites most of which are likely to require offsite disposal of material to new landfill sites. This can only be assessed with the development of more meaningful information.

21.1.4. No conclusions can be reached at this stage although it is noted that the assessment does identify a likely significant effect on waste management. Unfortunately, the assessment fails to provide any solutions.

Operational

21.1.5. Similarly, the information on the management of operational waste is equally vague. The arisings are difficult to validate without sufficient supporting information and the assessment of effects is somewhat meaningless without any solutions proposed.

21.1.6. Furthermore, the closure of the Lakeside Energy from Waste Plant is a significant concern. Whilst it is accepted an alternative site is being considered, there is no certainty to its relocation. There is also no clarity as to whether there would be an interim loss of resource, i.e. the period of time before the decommissioning of the current facility and the reopening of the new one (should that happen).

Conclusion

21.1.7. The waste management chapter is the least well developed of the all the PEIR topics.

The supporting information is not available to validate the baseline position but at least the assessment of significance identifies likely significant effects.

21.1.8. What is concerning at this stage is the distinct lack of solutions about how to handle an enormous increase in waste. The only conclusion to reach is that the proposals do not include sufficient measures to effectively manage waste. This is not a topic area that can be readily written off. There must be a solution.

21.1.9. Furthermore, the impacts on the West London Waste Plan have not been adequately addressed and this needs to be dealt with at a strategic level. Further discussions need to be add with the WLWA to determine how the waste arisings, construction and operational, can be accommodate sustainability. If there are no strategic solutions then the project should not take place until there are.

21.1.10. Finally, the loss of the Lakeside Energy from Waste Plant appears to have been given limited attention even though it is a vital resource to a number of bodies including the NHS (for clinical waste) and the WLWA. Removing this facility needs to be adequately assessed, and this means a robust interrogation of all those who use the facility.

21.2. Major Accidents and Disasters

21.2.1. The Major Accidents and Disasters assessment appears to be a mathematical assessment of risk without clearly factoring in probability. Self evidently, the increased amount of flights and the expansion of airport operations over wider geographical area will both increase the risk of serious events, albeit the risk is still likely to be very low.

21.2.2. The expanded airport with housing virtually at the end of what would be the new northern runway, as well as reduction in the buffer zone between the more populated areas north of the M4 would result in consequences of a greater scale than the current operations.

21.2.3. The proposals would clearly result in a heightened risk (i.e. probability x consequence). This matter is to be taken up with the Civil Aviation Authority and the Council as the host authority to airport will liaise directly with them.

21.3. Non Major Accidents and Environmental Conditions

21.3.1. The Council is concerned about the more likely but less consequential accidents (for example, planes skidding on runways, small scale fires, drone strike) or changes to

environmental conditions (for example fog or ice) that result in runway closure.

21.3.2. Currently it is assumed that there is sufficient capacity at surrounding airports to accommodate aircraft diverted in such circumstances. However, expansion will mean that more flights will be reliant on Heathrow Airport; in turn, should there be a need to close the airport, then countless more flights will need to be re-routed and accommodated elsewhere, this would most likely include an increased amount of A380 and other larger planes that different runway requirements.

21.3.3. There is genuine concern about whether there is capacity elsewhere to accommodate planes in such an instance. This does not appear to have been addressed in the consultation document but will be a more likely occurrence than Major Accidents and Disasters which has been considered.

21.3.4. Again, this is a matter for the CAA to address hastily but does need consideration further in the DCO.

21.4. Archaeology

21.4.1. The Council's archaeological advice is provided by Greater London Archaeological Advisory Service (GLAAS) which is independent of the Council. Their response is to be provided separately.

21.4.2. The Council reserves the right to provide further archaeological comments on receipt and review of the GLAAS response.