



**Colne Valley Park
Community Interest Company**

Response to

Heathrow Airport Consultation

September 2019

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1.0 INTRODUCTION, CVRP CONTEXT AND SUMMARY OF RESPONSE

1.1 This section:

- Introduces the Colne Valley Regional Park
- Summarises the response of the Colne Valley Park (CVP) Community Interest Company (CIC) to Heathrow Airport Ltd.'s (HAL) statutory pre-Development Consent Order (DCO) consultation, which ended on 13 September 2019.

1.2 This response was agreed by the CIC's sub-group of directors that focuses on Heathrow expansion, following consideration of the principles by the full board at a meeting on 16th July 2019.

1.3 The CVRP CIC's response in detail follows this section and is structured to pick up on the consultation documents of greatest relevance to the interests of the CIC. This provides feedback on:

- The Preferred Masterplan
- Various PEIR reports
- The Surface Access Proposals
- The PTIR report on Active Travel
- Construction Proposals
- The Scheme Development Report
- Mitigation and Compensation
- Environmentally Managed Growth

The Colne Valley Regional Park

1.4 The Colne Valley Regional Park (CVRP) is the first large taste of countryside to the west of London; an area for people, wildlife and many uses, including farming and angling. The Park, (founded in 1965) stretches from Rickmansworth in the north to Staines and the Thames in the south, Uxbridge and Heathrow in the east, and to Slough and Chalfont St. Peter in the west.

1.5 It is championed by the Colne Valley Park Community Interest Company (CVPCIC), which is submitting these comments.

1.6 The CIC's locus is to protect and enhance the Regional Park through six objectives:

1. To maintain and enhance the landscape, historic environment and waterscape of the park in terms of their scenic and conservation value and their overall amenity.
2. To safeguard the countryside of the Park from inappropriate development. Where development is permissible it will encourage the highest possible standards of design.
3. To conserve and enhance biodiversity within the Park through the protection and management of its species, habitats and geological features

4. To provide opportunities for countryside recreation and ensure that facilities are accessible to all
5. To achieve a vibrant and sustainable rural economy, including farming and forestry, underpinning the value of the countryside
6. To encourage community participation including volunteering and environmental education. To promote the health and social well-being benefits that access to high quality green space brings.

- 1.7 **The CVPCIC objects in principle to the proposed expansion of the airport because it will fundamentally and adversely change the southern third of the Park, with significant and far-reaching impact negatively affecting its wildlife and the way people can use and enjoy it.** This is both as it is now, and as a 'green' resource for the future. The proposals, as presently drafted, would severely hamper the Park's ability to function in this area, and prevent it from achieving its objectives.
- 1.8 Our response is therefore provided in that context, the CVPCIC noting the government's national policy statement to favour the principle of expansion.

Overview/ Summary of CVRP CIC's response to the June 2019 Consultation

We object to the expansion, as proposed, because of:

- An unprecedented impact on the braided river channels that characterise the Colne Valley posing a fundamental threat to their ecology and connectivity, employing unproven techniques.
- Permanent loss of a large part (approx. 900 acres) of the CVRP and the lost potential for that area to offer a natural environment resource in the long term
- Loss of the Park's functionality due to the intrusion of the airport expansion, associated aircraft movements and supporting development/ infrastructure and resulting severance.

In addition to the above and taking account of the 2018 Airports National Policy Statement (ANPS), **the mitigation and compensation falls well short of what is required** to offset the adverse effects arising from:

- Poor recognition of the role of the natural environment in impact assessments and in HAL's 'Environmentally Managed Growth'.
- Lack of 'landscape-led' design and failure to create attractive river corridors that function in a natural way, or replicate that in an acceptable fashion
- Poor connectivity for walking and cycling routes within the 'masterplan' zone and failure to create attractive networks to link further afield
- Adverse effects of traffic associated with construction and the expansion within villages near to the areas under development
- Worsening of green infrastructure provision compared with the masterplan appended to the ANPS, occurring in a particularly narrow part of the Green Belt
- The scale and duration of construction compromise the Park's environment – with some sites assuming a degree of permanence.

Before DCO submission we wish to see:

- A green and blue legacy with a Park environment we can all be proud of, with reduced risks to the area's ecology.
- A more holistic 'landscape-led' masterplan, better realising the area's potential to offer a high quality environment, well integrated with nearby areas for people and wildlife
- Greater certainty and clarity around GI provision and walking and cycling routes, with such features made integral to the DCO proposals and land embraced within it.
- Greater clarity about the design of temporary sites, operations and structures, with commitment to design quality, relative to sites' impact.
- High quality maintenance and effective management as a minimum standard
- A compensation package for the natural environment that enables the Colne Valley Park to rise to the challenges of the future

2.0 PREFERRED MASTERPLAN

Overarching Comments:

1. The proposals will cause the loss of approximately 1,300 acres of Green Belt of which approximately 900 acres is within the Colne Valley Regional Park.
2. The draft masterplan fails to bring forward a sufficiently wide and coherent improved natural environment to offset the scale and permanence of adverse impact on the river systems and landscape/ Green Belt within the CVRP.
3. Taking account of committed restoration in this zone the 'added value' from the airport expansion needs to be increased significantly, this should be informed by the Colne & Crane Green Infrastructure Strategy.
4. The degree of uncertainty that remains around how the diverted rivers will function is very significant and the masterplan cannot be fixed whilst this remains.
5. More land and improvement measures need to be included in the masterplan to produce an area of new 'Park' that will function as an entity.
6. This is required to benefit local communities, the ecology of the rivers and to generally bring forward a comprehensively improved landscape in this sensitive part of London's Green Belt and the CVRP.

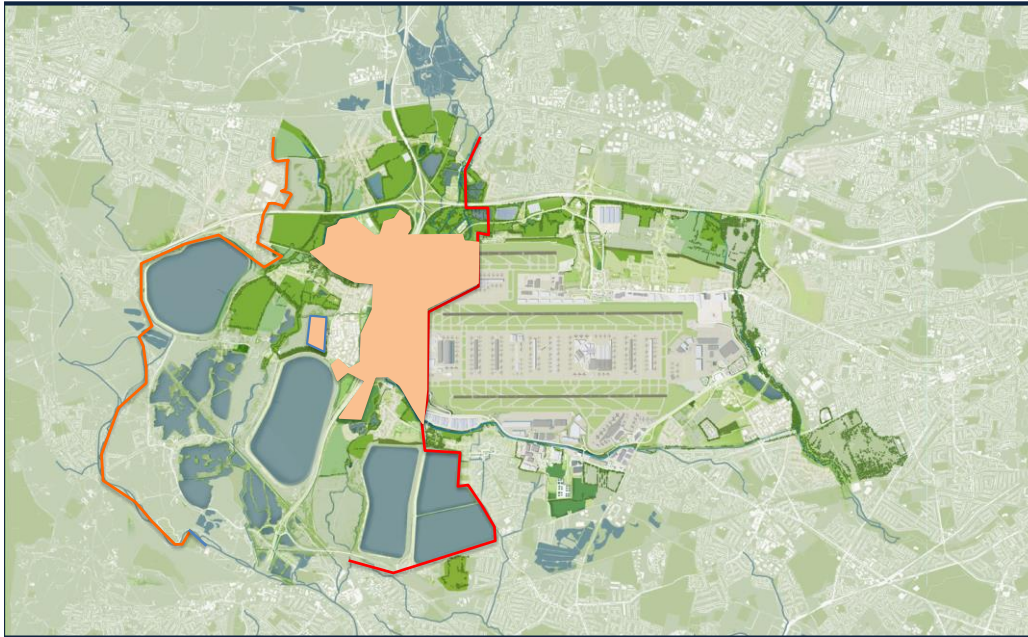
2.1 The CVRP, like HSPG, is particularly mindful of the major impact on the green infrastructure and river systems, notably:

- Five rivers diverted and placed in artificial channels
- Approximately 1,300 acres of Green Belt/ Metropolitan Open Land (MOL) estimated to be lost to built development and infrastructure, most falling in the Colne Valley Regional Park.
- The Green Belt (GB) in this area sits on the edge of the capital, is fragile and needs comprehensive improvement to function effectively as green space to benefit local communities affected by expansion, as well as wildlife.
- The scale and intensity of commercial and other activity around the country's busiest airport means this area is subject to unusually intense pressure, requiring a bespoke area-wide and enduring response.

2.2 The CVRP shares the HSPG Green & Blue Sub-Groups' concerns in relation to the preferred masterplan and related extent of the land to be included in the DCO. In essence this can be summarised as:

- Adverse impact on River Systems
- The preferred masterplan does not reveal or commit to a comprehensively improved landscape in the core zone around the airport
- Lack of a comprehensive network of high quality multi-directional walking and cycle routes across the masterplan area
- Lack of clarity around the commitment to high quality management and maintenance of the GI and active travel network for the long term (public and private realm)

- 2.3 The following diagram, using the AEC masterplan base, illustrates the boundary of the CVRP (in red) relative to the approximate extent of the developed area of the expanded airport and associated works/ building (beige). It reveals the extent of impact on this part of the Colne Valley, which was designated as a Regional Park to promote its conservation and enhancement as a resource for the community and for its wildlife.



Note: We use HAL's masterplan as a base but highlight that the way it 'green-washes' over urban areas creates a misleading image and a clearer base for the masterplan is needed.

- 2.4 We estimate that about 900 acres of 'green' land within the Park stands to be lost and this calls for a strategic level of response so this part of the CVRP can function in an excellent way in this whole zone around the expanded airport. Instead, we see a disjointed masterplan with parcels of land excluded in this zone that need to be improved, and development/ infrastructure beyond the main airport perimeter that adds to the unacceptable impact on the areas of green infrastructure that remain.
- 2.5 This land is Green Belt and the terms of the ANPS and updated NPPF policy issued by Government in 2019, since the ANPS was issued, calls for a stronger response. This is a strategic issue that is about getting the Green Belt that remains (in this case the CVRP) functioning well as a green and natural resource. There needs to be a lasting high quality legacy that delivers what was intended when the Green Belt (and soon after) the CVRP were designated after the Second World War. With the increasing urban density of London and the built-up areas around it, achieving this legacy is more important than ever. Please refer to the annex to our commentary on the PEIR 'legislative and policy overview' regarding PPG para 138 (Section 3.1 in this response).
- 2.6 We note that many areas shown 'improved' in the masterplan are former mineral workings and land subject to legally binding restoration schemes. This diminishes the 'added value' of what is proposed in the masterplan. In this zone, which bears the brunt of airport expansion, the extent of mitigation needs to be increased significantly.
- 2.7 In the following pages and related annexes we identify some specific comments on the 'Preferred Masterplan' consultation document which must be addressed. The comments begin with the section/ page number being commented on:

2.8 P15: ANPS Annex B: We note the illustrative masterplan which was context for both the parliamentary approval of the ANPS and the preceding Airports Commission report and sustainability analysis. We note that the ANPS masterplan incorporated significant green areas which are either now omitted from the GI to be delivered by the masterplan/ DCO are in fact now proposed for development. This change is most noticeable (within the CVRP area) in the following areas:

- NW of the airport expansion,
- West and south of the existing Poyle Industrial Estate



Extract from Master-plan in Annex B to the Government's 2018 Airports National Policy Statement

Indicating (X) principal areas where significant areas of GI previously shown are now removed/ proposed for development.

2.9 P17: Whilst the accompanying figure 3.3.2 shows the boundary of the CVRP we note no reference is made to CVRP and its purposes in the paragraphs relating to the figure – which should be.

2.10 P19: CVRP considers the four pillars (derived from Heathrow 2.0) are not adequate and need to include a theme around 'Creating a Great Environment'. This topic area should be critical to a successful airport expansion and it embraces more than the quality of life element in 'A Great Place to Live'. This omission must be addressed.

2.11 P28: The approach to sustainable design, identifying five named design challenges, fails to give prominence to the importance of design in, and of, the natural environment as well as the built environment. Whilst the supporting text includes 'landscape', the absence of a design challenge relating to the natural environment should be included. This is a major omission given that the project stands to involve land take from the Green Belt of more than 1,300 acres, of which some 900 acres is within the Colne Valley Regional Park.

Together with the absence of reference in the 'pillars' for the project this reveals a lack of attention at the high level to the design of the natural environment as an integral part of project design.

- 2.12 P30 4.7.3: The key considerations identified should include one to address fragmentation of good quality recreational active travel routes in the area around the airport.
- 2.13 P32 4.7.7 Whilst a multi-functional green loop is welcomed, we consider that the focus is too much on a 'loop' (the design and alignment of which is often contrived to adapt to development boundaries and is not conducive to its multi-functional purpose, including active travel). It should instead be anchored on a concept of multi-directional green corridors incorporating active travel routes.
- 2.14 P33 4.7.11 The CVRP particularly welcomes the statement: "Colne Valley Regional Park South will be strengthened as a Regional Park set in a dynamic floodplain landscape to become an important part of the legacy of the Project", but considers that significantly more needs to be done in the masterplan to achieve the 'strengthening' referred to.
- 2.15 P34 4.7.12: The Green Loop needs to be developed as a concept and extended 'on the ground' for it to become truly effective.
- 2.16 P36-38: Surface Access – note this is covered in our commentaries on the Surface Access Proposals document (Section 4.0) and the PEIR 'Transport Network Users' (Section 3.10).
- 2.17 P46-52: (Diagrammatic Explanation of the Preferred Masterplan layout).
- The fact that Figure 5.2.1 omits the existing rivers is surprising, extremely disappointing and entirely unacceptable.
 - The 'design evolution' should give greater emphasis to creating north-south connectivity within the CVRP to mitigate the major intrusion and land-take. This is not made clear in the sequence provided.
 - Figure 5.2.12 on p51 reveals the principal role of the railhead (after the construction stage) is to cater for aviation fuel supply. This should not justify a rail facility of the scale shown. We ask that this is addressed as part of a reconsideration of this NW quadrant.
 - The sequence of figures also reveals a lack of strategic thinking to comprehensively plan for landscape-scale mitigation around the expanded airport – figures 5.2.7 and 5.2.8 should reflect this. Our annotated comments on the masterplan clarify our concerns in this regard.
- 2.18 P56-59 DCO limits (Draft DCO Limits Boundary)
- As will be evident from our comments elsewhere in this response we consider that more land than indicated needs to be incorporated into the DCO limits to ensure comprehensive implementation of a green infrastructure mitigation strategy.
 - We also consider that excluding parcels of land in the area generally covered by the masterplan creates uncertainty as to the future of the GI in the area of the masterplan.
 - The comprehensive improvement and after-care of land in the whole zone around the proposed expanded airport will be essential to the successful functioning of that zone as part of the CVRP and Green Belt. Leaving holes in the DCO and not having a positive plan for all sites will undermine the GI strategy.
 - An example of a 'hole' is the land 'reserved' for Lakeside Energy from Waste (EfW) plant. We do not support the re-siting of a massive EfW plant into this central location in the CVRP and strategic gap in the Green Belt but recognise

that a third party has a right to apply for planning permission. Nevertheless, the success of an application for this key parcel of land cannot be assumed when its relocation in this area is not required by the ANPS. A positive GI mitigation proposal is required for omitted parcels of land.

- 2.19 P60-63/ section 5.5: In presenting the 'Areas Directly Affected', it fails to highlight the large area (around 900 acres) in the CVRP affected by development proposals. It also fails to highlight that, relative to the illustrative masterplan appended to the ANPS, the current 'preferred masterplan' involves considerably more development in the CVRP and Green Belt.

If the "Very Special Circumstances" case is made out for the various uses/development in these broad Green Belt and CVRP locations it serves to heighten the need for a more comprehensive approach to GI provision within the remaining green land, together with a sensitive approach to overall layout and massing to enhance the GI provision and active travel routes provided.
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- 2.20 **Masterplan Zones** (Zones K, L, M, N and P – sections 6.11 to 6.15): Our key concerns on those parts of the masterplan within the CVRP boundary are recorded on the following eight pages:

Annotations of Draft 'AEC' Masterplan to highlight CVP CIC's concerns

2.21 The annotations on the following seven pages are intended to illustrate key concerns within zones falling inside the CVRP boundary. We draw attention to the following points about the annotations:

- They are not intended to be comprehensive of all concerns, but relate comments made in the response from the CVRP to the AEC consultation to particular locations and illustrate where improvements to the masterplan and DCO submission are needed.
- The points are made on the Parameter Plans included in the 'Preferred Masterplan' document and some other Figures. We use the Parameter Plans as these appear to offer a more accurate representation of what is proposed/being committed to, as opposed to the 'green-wash' style masterplan/'illustrative' plans which in our view give a misleading impression of the extent of mitigation being committed to.
- The arrows used are indicative only and often relate to a wide area. Many points are also more widely applicable to an entire zone, especially those relating to rivers. On rivers, we would draw attention to these general points:
 - The construction period is likely to have a profound effect on habitat connectivity and may result in the degradation of existing watercourses before the new river channels are created.
 - New habitat features created on the new river corridors will take a long time to establish, thus leading to an initial decline in wildlife and a further negative effect on habitat connectivity.
 - The measures embedded into permanent infrastructure that define the quality of habitat to be created on the new river corridors may be impossible to implement in many locations due to the following factors: bird netting requirements, new impoundments, loss of groundwater connectivity due to contaminated land, the presence of transport infrastructure, new surface water discharges.

Intrusion of ASD with contrived green loop creating undesirable dog-leg. This development area was not in the original plans and not in the masterplan appended to the Airports NPS. In contrast the area was shown as GI.

Quality of active travel route v poor - new green bridge required. Area of search for new m/way crossing - between J14 and the Wraysbury River crossing of M25

Bretts restoration area with new active travel routes being lost to sealed off area? Wrong location for drainage & pollution control just upstream of a SSSI. Connectivity/opening up opportunities to be pursued with 'whole zone' landscape-led approach needed.

Area marked as biodiversity area on illustrative plan but no information on parameter plan. Outside DCO so how will it be delivered? Site already part of a restoration plan so misleading for HAL to imply that this is Heathrow mitigation when enhancements area already provided for.

Loss of N-S New riverside access. New corridors offer no public benefit. Contribution of rivers to character of valley lost.

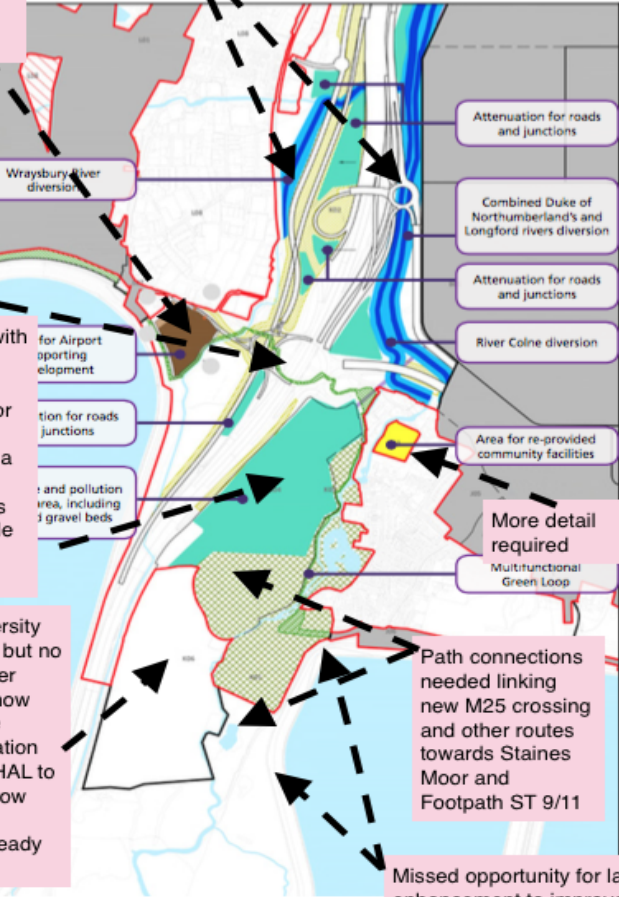
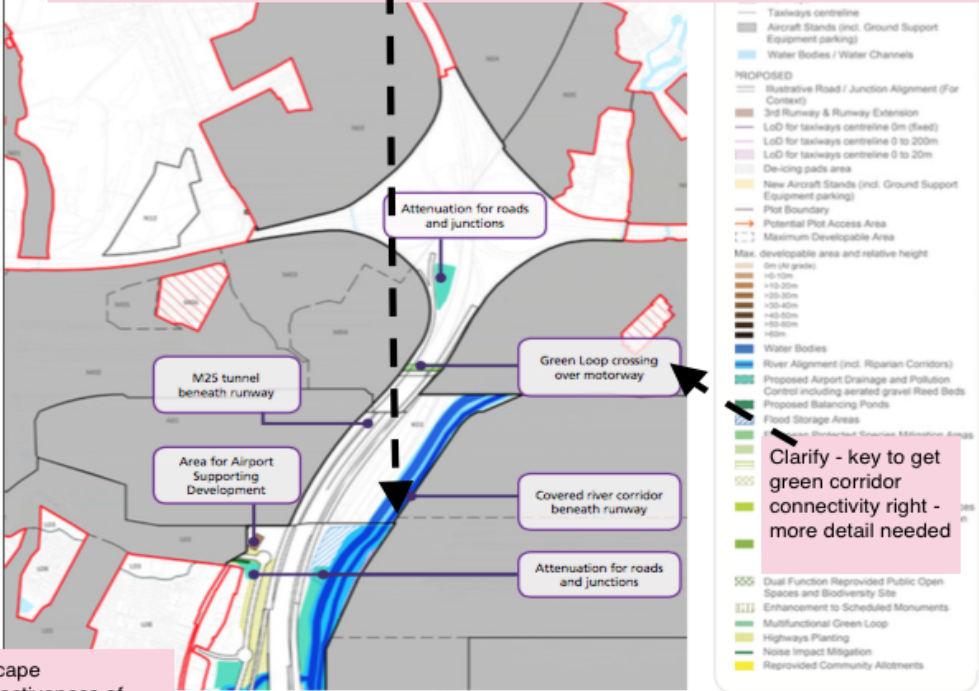


Figure 6.11.4: Parameter Plan - Zone K

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Note: The comments below apply to the extent of the CRC

- The covered river corridor is an unproven concept with no legal requirement to maintain to the standard it was created. Insufficient evidence has been provided by Heathrow to demonstrate that this scheme is viable.
- Due to the merged river corridor's proximity to the runway, protected species will be significantly impacted by land take, changes in hydrology, fragmentation of habitats, noise and vibration, and light intensity.
- The merged river channels follow an artificially straightened course so are unlikely to provide natural geomorphology, flow types or habitat.
- If the Colne and Wraysbury's bed is lined they will lose groundwater connectivity, effecting flow and water quality downstream. This area may require lining if land is contaminated.
- All rivers will lose their connectivity with the floodplain and ability to laterally expand.
- Public access to the RC and RW is completely lost, meaning that the river cannot be appreciated by local people. If the quality of the river declines, e.g. pollution no one will be there to report it.
- Increased surface water discharges from the expanded airport, new road infrastructure and other impermeable zones will alter the hydraulic regime of the river during times of high rainfall and is likely to result in a significant decline in water quality (rise in temp, suspended solids, BOD, chemical pollutants).



Preferred Masterplan | Airport Expansion Consultation

General Comment: A 'whole zone', edge to edge plan is particularly needed for this area to create a comprehensive, well maintained and accessible, green park area (within DCO limits where not already existing) to mitigate and provide connectivity. Too many areas excluded from DCO and too much uncertainty.

Concern over impact of all utilities installations - more details required/ siting detail may need to be adjusted.

Welcome opening up Colne Brook corridor with active travel linkage from Colnbrook linkage - but clarity needed around this.

Due to the Colne Brook's proximity to the end of the runway, protected species will be significantly impacted by land take, changes in hydrology, fragmentation of habitats, noise and vibration, and light intensity.

Concern about impact on the Conservation Area/ character in the village of 'localised flood walls'

Concern over visual impact of extensive blast protection wall around western side of airport

Concern about impact of (raised) A3044 diversion and associated works/ mitigation on Pippins Park

Unclear what is proposed for this land (query what is within DCO limits). It is essential to be brought into the GI to mitigate and provide connectivity

Concern about physical & visual impact on GI of diverted utilities/ installations/ 'protected' corridors, including on parts of Crown Meadow and Colnbrook Rec. Ground. Also, areas shown as 'electrical infrastructure' seem not to correspond to locations of terminal pylons/ compounds.

Area for electrical infrastructure

We welcome enhancement to improve and introduce public open space. Essential to include this as GI but note a) the 'potential' status is uncertain b) this is not existing public open space. c) It is outside of DCO limits and needs to be in.

Colne Brook

Potential enhancement to existing public open space

This land needs to be included as GI. Unclear what is proposed for this land (and note it is outside of DCO limits).

Area around Berkyn Manor Farm needs to be included/ improved. Clarity needed around active travel linkages around here incl. E-W

Area for electrical infrastructure

Further detail needed so impact can be assessed

Object to built development and intrusion into CVRP, setting of Listed Building and Green Belt. In contrast the area needs to be opened up and access to it made attractive from all directions, to mitigate and provide connectivity. See also comments on Figure 6.12.5

- Need to fully understand what is proposed in this whole area. Concern about impacts on area around Arthur Jacobs LNR and the LNR itself - in contrast the area needs to be opened up and access to it made attractive from all directions, to mitigate and provide connectivity.
- 1/2 of Arthur Jacob LNR appears to be in hybrid bill for EPS mitigation and 1/2 outside. The 1/2 of the LNR outside of DCO appears required for construction, this is unacceptable.
- HAL must fund feasibility study to improve whole LNR and surrounding area and fully fund implementation.

Figure 6.12.4: Parameter Plan - Zone L

Reproduced by

This expansion has a major impact on the CVRP and a narrow, sensitive section of GB. The CVRP objects to the principle. This was not in the original plans and not in the masterplan appended to the Airports NPS. In contrast the area was shown as GI.

If, nevertheless, the case for expansion is accepted at DCO stage the development parameters should provide for greater mitigation than indicated to address impacts. This should be discussed prior to submission and, as a minimum, incorporate:

- Bringing the land to the west of this site forward as GI mitigation, into positive management for landscaping, people and wildlife as part of a whole zone edge to edge plan.
- A central E-W green spine providing a visual connection with the open green land beyond and active travel connectivity to it (and forming part of the wider active travel network - see Joint Connectivity Statement). This green spine can serve to improve the context/ setting for listed Poyle Farmhouse.
- Improve the relationship of southern boundary with Poyle Poplars to provide a green transition & reduced scale of building.
- Improve the relationship of western boundary with the land to the rear/ west to provide a green transition.
- A generally reduced scale of building to better respect the Colne Valley Park/ Green Belt context

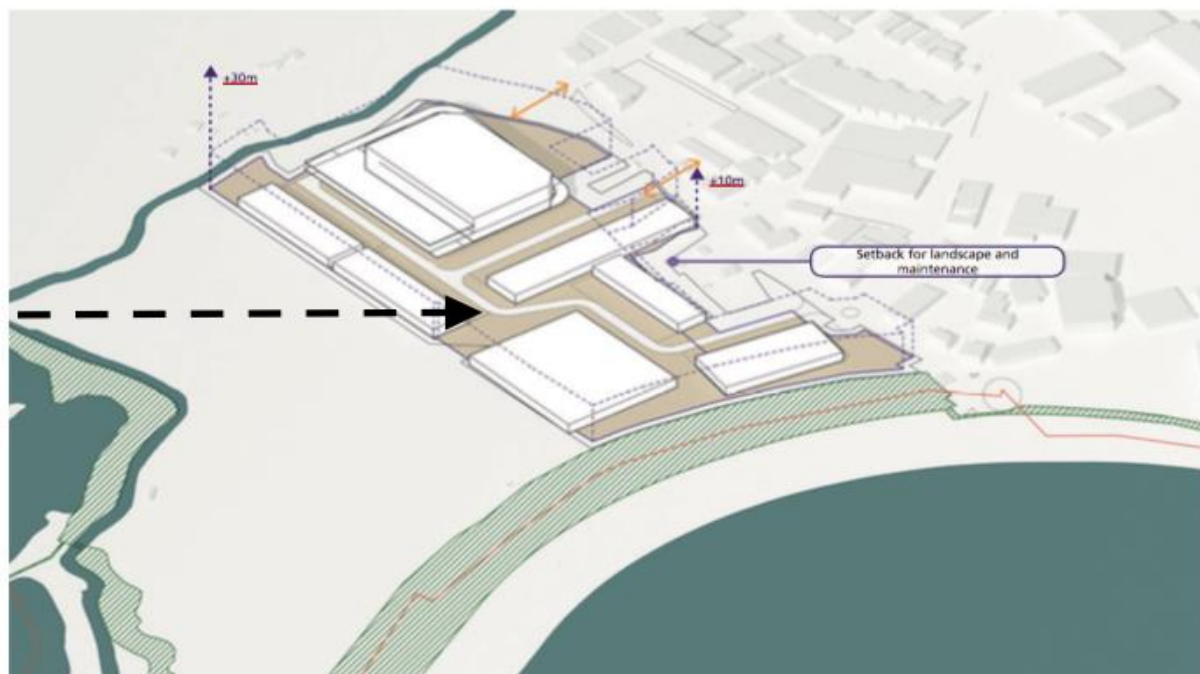


Figure 6.12.5: Illustrative 3D massing - Zone L - Industrial Development Area

* All buildings shown as indicative massing within height parameters which are relative to the assumed ground level



Figure 6.12.6: Section B - Poyle (refer to Figure 6.12.3)

Objection to this extensive development area which was not in the original plans and not in the masterplan appended to the Airports NPS. In contrast the area was shown as overwhelmingly GI. Our objections can be summarised as:

- Substantial intrusion of major development in a fragile section of the strategic gap in the Green Belt/ CVRP
- Due to the diversion of Colne Brook through landfill, the river will lose its connectivity with ground water which may affect flow and water quality. Also risk of contamination.
- Very poor corridor for diverted Colne Brook - its course defined by the boundary of the rail head and M4 - width of corridor too narrow and the proximity of the river to the m/way/ rail-head and other development, incl. EFW plant unacceptable. Inadequate landscape and natural context for what will be the only open river channel in the remaining 'green wedge' offering N-S connectivity.
- Colne Brook will require bird netting in this location due to its proximity to the end of the run way. Other watercourses will also require netting but Heathrow have not clarified the precise extent of this yet.
- 'Green loop' walking/ cycle route also pushed against motorway or main A4.
- The infilling of offline lakes will significantly reduce the diversity of aquatic wildlife in this part of the river catchment e.g. invertebrates, bats, birds, fish
- Old Slade Lake infilling unacceptable - creating EPS mitigation by destroying existing habitat not justified. Also the Old Slade Lake 'infill' provides a green space is the wrong location for such a facility - that will not be attractive as a destination.
- Colnbrook West Lake which feeds the County Ditch is proposed to be filled in. HAL must provide clarity on how flow to the county ditch will be maintained- Inadequate mitigation with no creation of a high quality active travel link to mitigate/ compensate for scale of intrusion. Continued below.

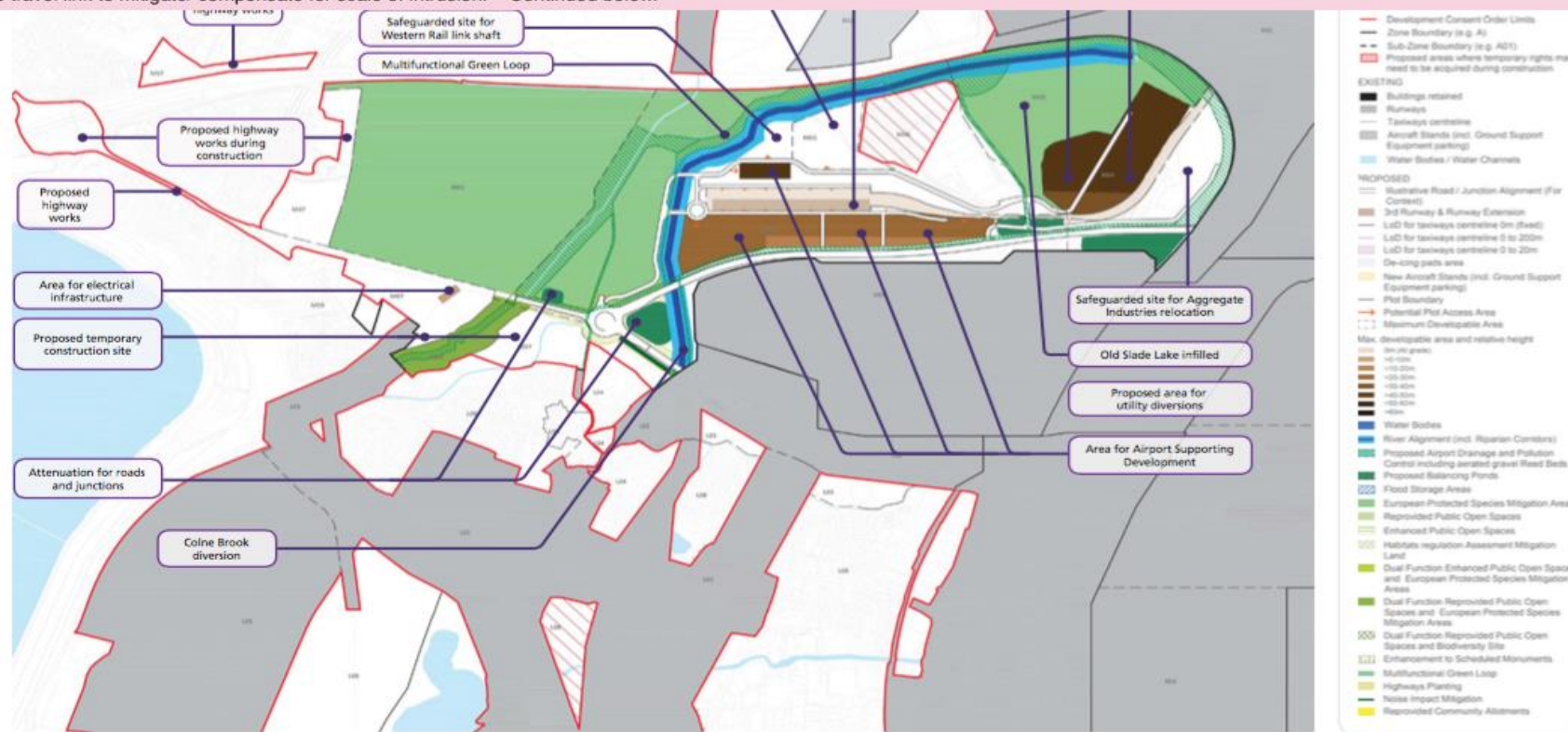


Figure 6.13.4: Parameter Plan - Zone M

Based on the assumptions of the Heathrow Airport Masterplan 2018. All rights reserved. Heathrow Airport Limited. DfE Licence Number 100030071. If built/ highway ingredients are justified in this general area a reconfiguration to bring the best out of the area is needed. This to include: new green bridge location over M4 (see comments against Zone N), green space repositioned to give setting for river/ buffer against buildings, EFW relocated and reduced scale of building.

- 6.13.4 ASD is proposed to sit to the south and east of the rail sidings to take advantage of the strategic location close to the railway line. Part of the eastern area is safeguarded for the re-provision of Aggregate Industries' asphalt and ready-mix concrete plant which may come forward independently of Heathrow's DCO application. In the event that it does not, ASD would be developed in this location.
- 6.13.5 During the construction process, the railhead will provide the principal means for managing the arrival of bulk material for construction. Much of this material will be transported from the Project logistics hubs located across the UK. The use of rail is better for the environment and reduces the number of vehicles on national and local roads.
- 6.13.6 The Colne Brook water course will be diverted from the existing channel immediately south of the M4, before passing in a widened river corridor south of the M4 and to the north and west of the railhead. The diverted channel then connects back into the existing Colne Brook channel to the south of the new A4 and A3044.
- 6.13.7 Zone M also accommodates a section of the proposed Green Loop, located to the north of the railhead. The Green Loop follows the alignment of the river corridor for part of its length and will provide access to the Colne Valley Regional Park.
- 6.13.8 As indicated in figure 6.13.4 we have safeguarded for the Lakeside Energy from Waste facilities in this zone. It does not feature as part of this Statutory Consultation and will be taken forward separately by others.

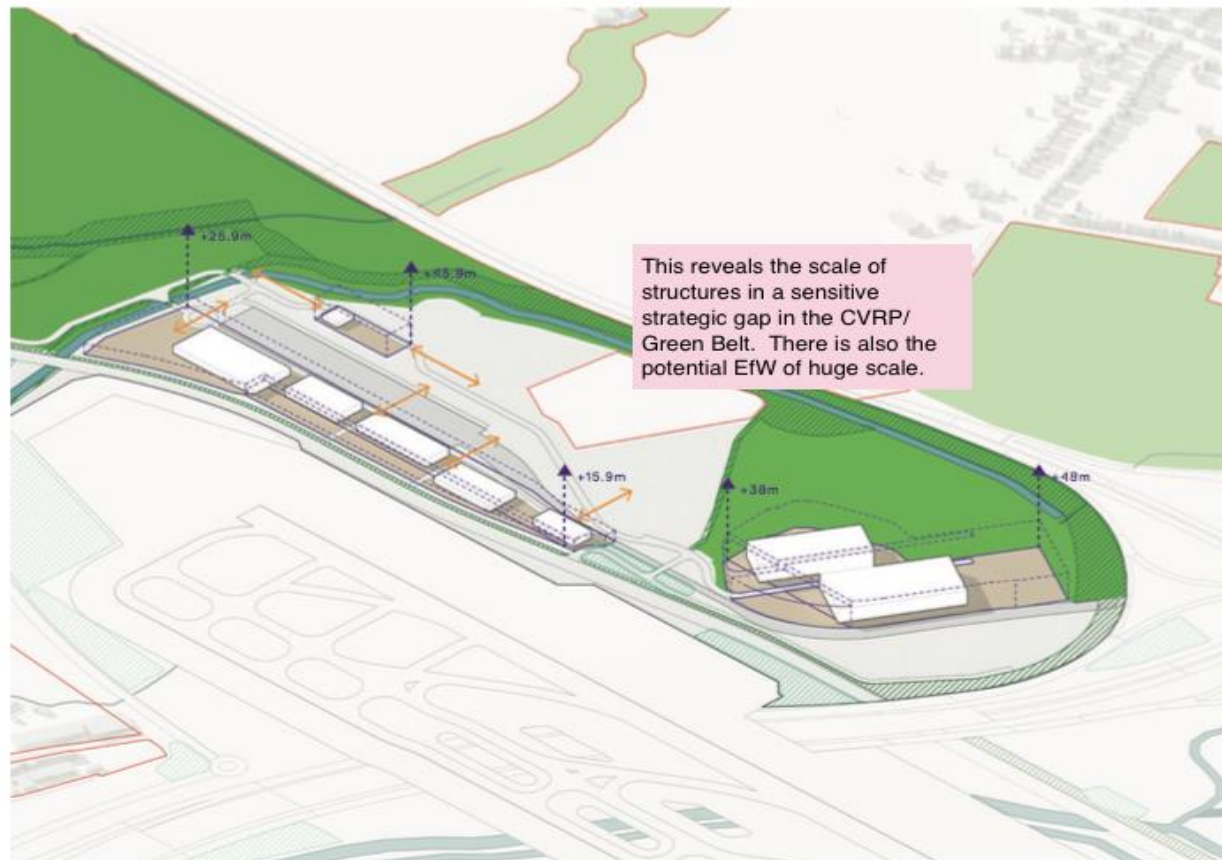


Figure 6.13.5: Illustrative 3D massing - Zone M - Railhead Area

* All buildings shown as indicative massing within height parameters which are relative to the assumed ground level

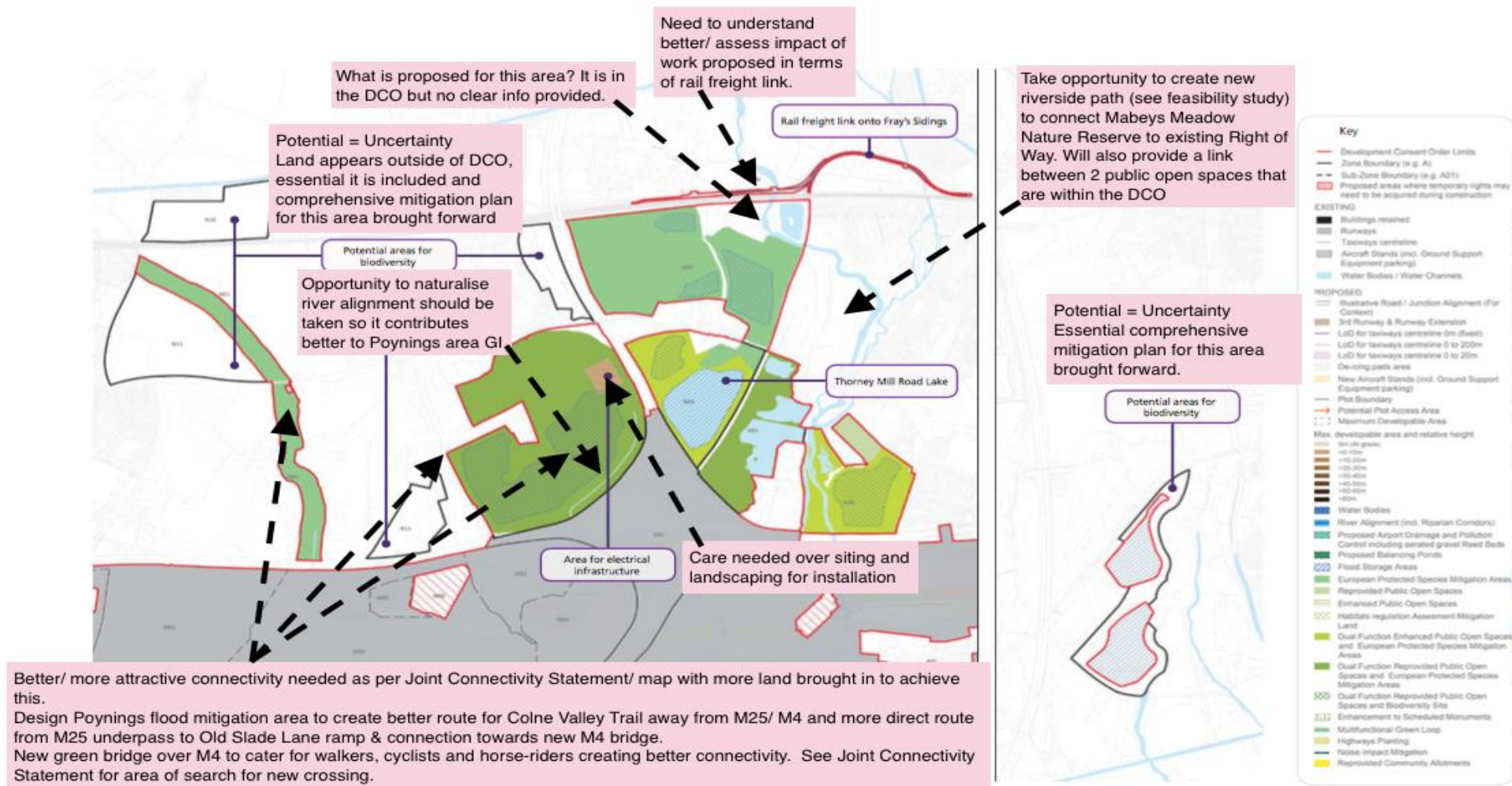


Figure 6.14.4: Parameter Plan - Zone N

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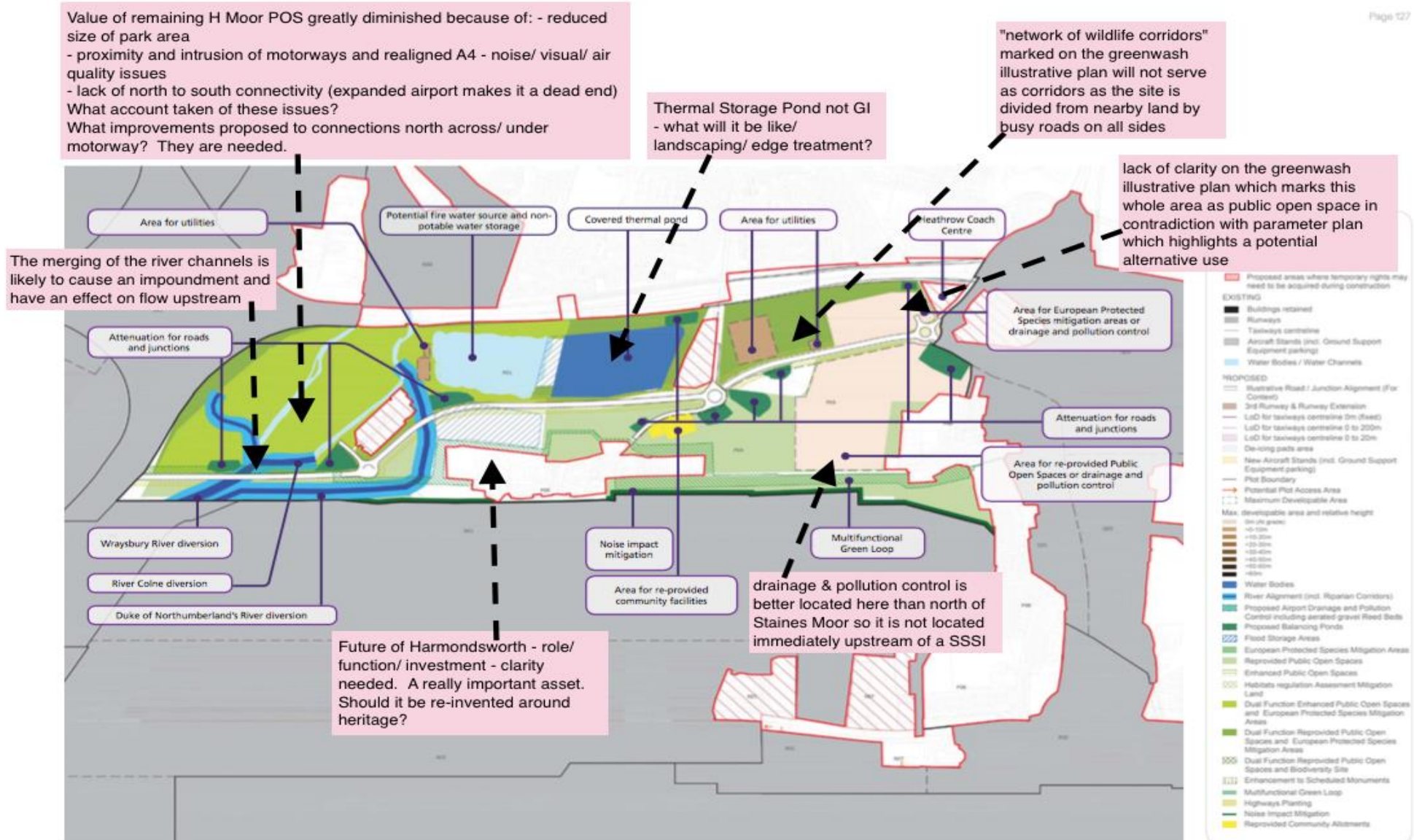


Figure 6.15.4: Parameter Plan - Zone P

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Masterplan ‘By Theme’ Sections (selective comments on sections 7.1 to 7.12):

- 2.22 We do not provide specific comment on the ‘Our proposals by Theme’ section 7. For our response on individual themes, please refer to the preceding comments on the Preferred Masterplan and comments on the individual PEIR chapters.
- 2.23 We make the following comments on **utilities (section 7.12)** as this is not covered elsewhere in our response:
- In principle we welcome the undergrounding of the existing powerlines to the west and south of Colnbrook
 - After cables have been put underground we wish to see a restoration plan for Crown Meadow presented by HAL. The plan should demonstrate benefits that will be achieved for the community and wildlife, restore the semi-natural grassland , including the use of locally sourced wildflower seed from adjacent meadow land and the re-creation of pre-existing ground conditions.
 - Please also refer to concerns/objections we have to the siting/ lack of detail for various utilities installations – these are included on the annotations to the masterplan on the preceding pages.

Indicative Phasing (selective comments on sections 8.1 to 8.5)

- 2.24 We welcome the stated intention that comprehensive landscape mitigation will be in place at the time of opening (currently estimated at 2026).
- 2.25 We remain concerned that the growth in air traffic movements resulting from the expansion will have a significantly adverse impact on the relative tranquillity of the CVRP, and its ability to promote recreation within the affected areas of the Regional Park if flight paths introduce additional noise.
- 2.26 Phasing plans should include detail about the delivery of the green and blue infrastructure elements of the scheme.
- 2.27 APPENDIX A and B – Maps include an out-of-date depiction of the ‘draft red line boundary’. We suggest this is brought up to date or omitted.

Preferred Masterplan Appendix C – Landscape Toolkit

- 2.28 The Landscape Strategy is “driven by the ambition of Heathrow to become one of the most sustainable hub airports in the world”. The Preferred Masterplan does not provide any certainty this will be achieved in landscape and/or aesthetic terms:
- The toolkit relies on illustrative plans and examples. These do not provide any guarantee the aspirations they illustrate will be achieved; how can we be certain, for example, that the roads around the expanded airport will look like the road photos in section C4.1 and not like the roads that surround the airport today?

- The Toolkit relies on 'good design' and the Design Toolkit, which is not yet available. It is not certain that the funding will be available to deliver the standards of design required. There are many vague and non-committal words – 'can', 'may'. where there needs to be more certainty.
- We welcome the aspiration to use SUDS. However, we need to see more detailed design of these elements before DCO submission.
- We raise concerns (PEIR, Water Environment and PEIR Biodiversity) about the ability to deliver effective water treatment facilities that will safeguard the river environments from pollution incidents. Further consideration must be given to how water treatment facilities will meet required amenity standards and contribute to the project in green and blue infrastructure terms.
- We welcome the aspiration to use water treatment and SUDS. However, we need to see more detailed design principles before DCO submission. We have identified concerns about the potential for water treatment facilities to have harmful impacts for biodiversity and the water environment resulting from pollution events. See sections 3.2 and 3.10.
- C2.2.2 - Flood alleviation: there are opportunities for a better route for the Colne Valley Trail and re-naturalisation of the Colne Brook at the Poynings.

3.0 PRELIMINARY ENVIRONMENTAL INFO REPORT (PEIR)

3.1 Volume 1, Chapter 2 (Legislative and policy overview) and Volume 2, Chapter 2: Figure 2.2 (Illustrative Heathrow NW Runway scheme masterplan)

Overarching Comments:

1. Exactly the same illustrative masterplan as used in the ANPS Annex B is not used in the PEIR
2. The scheme proposed to be subject to the DCO application is wider in its limits than the illustrative scheme referenced in the ANPS and will have significantly more impact on the Green Belt and CVRP than the ANPS scheme.
3. A greater level of mitigation in terms of green and blue infrastructure needs to be provided and this is called for in the 2019 NPPF, which talks about offsetting the release of Green Belt land for development by “compensatory improvements to the environmental quality and accessibility of remaining Green Belt land”.

3.1.1 At para 2.3.4 it states that “The ANPS also includes a layout plan (at Annex B), derived from the work of the Airports Commission, which provides an illustration of how a future expanded Heathrow might be developed. This is reproduced in Figure 2.2, Volume 2. The plan used is not exactly the same as the one appended to the ANPS, in that the Figure 2.2 version introduces a grey shading over existing undeveloped/ open space areas. In the ANPS version these areas appear to be shaded light green as ‘existing open spaces’.

3.1.2 At para 2.3.6 text extracted from ANPS Para. 4.11 is quoted. We recognise the flexibility in moving from the ANPS ‘illustrative masterplan’ at Annex B and the scheme the subject of a DCO application. However, we also note that ANPS Para 4.11 goes on to say *“It governs the location, limits and nature of such schemes. It will be for an Examining Authority, and ultimately the Secretary of State, to determine whether any future application is compliant with the Airports NPS, meets the need for additional capacity, and is of benefit to the UK, whilst minimising any harm caused.”* In that respect we draw attention to the fact that the emerging DCO scheme involves a project with considerably wider limits of development, with significantly more land now shown for airport-related and other development that involves a materially greater loss of land from the designated Green Belt, most of which falls within the CVRP. If such a scheme is legitimate to proceed, it signals the need for far greater mitigation to improve the environment and accessibility of remaining land within the Green Belt in the vicinity of the airport expansion. We note the Sustainability Appraisal supporting the ANPS was based on an assessment of the ‘Annex B’ illustrative masterplan, not a more expansive scheme with wider limits.

- 3.1.3 At para 2.3.11 the February 2019 NPPF is referenced and it is stated the relevant sections in the PEIR address its policy provisions. However, nowhere in the PEIR have we seen recognition of an important strand of national policy in the 2019 version, namely text in Para 138. We include below, as an Annex, an explanatory note concerning this.
- 3.1.4 General Comment: We note that reference is not made to the Colne Valley Regional Park and its six objectives. We understand this is in different category, but we do not see this referenced in Section 2.6 'Other important and relevant matters' which it should be. We have not picked up that the six objectives are addressed elsewhere in the PEIR.

Annex concerning NPPF (2019) Para 138

- 3.1.5 Para 138 reads as follows (our highlighting):

"138. When drawing up or reviewing Green Belt boundaries, the need to promote sustainable patterns of development should be taken into account. Strategic policy making authorities should consider the consequences for sustainable development of channelling development towards urban areas inside the Green Belt boundary, towards towns and villages inset within the Green Belt or towards locations beyond the outer Green Belt boundary. Where it has been concluded that it is necessary to release Green Belt land for development, plans should give first consideration to land which has been previously-developed and/or is well-served by public transport. They should also set out ways in which the impact of removing land from the Green Belt can be offset through compensatory improvements to the environmental quality and accessibility of remaining Green Belt land."

- 3.1.6 This is supported by government national Planning Practice Guidance, the most recent update having been issued in July 2019. This specifically builds on para 138 and elaborates on the nature of 'compensatory improvements'.
- 3.1.7 From a review of the AEC consultation documents the provisions of para 138 and its requirement for "compensatory improvements" appear not to have been taken into account. We consider that para 138, and its expectation for "compensatory improvements to the environmental quality and accessibility of remaining Green Belt land", is very relevant to the DCO process, for the following summary reasons:
- The Heathrow expansion involves building on around 1,300 acres of GB (the majority being in the CVRP).
 - Normally strategic-scale developments in the GB would be considered via a Development Plan review undertaken by the relevant Local Authorities.
 - In this case, the development crosses many LA boundaries and has not been promoted via the normal mechanism by the "strategic policy making authorities" as it is deemed a national infrastructure priority and has been promoted via the ANPS and other national policy mechanisms.

- This wording in para 138 came in after the 2018 ANPS and, being government policy, adds a very material policy dimension to be considered in the DCO process – by HAL, the examining body (PINS) and Government/ Secretary of State (as decision maker).
- The fact HAL/SoS is not in the normal category of ‘strategic policy making authorities’ does not make the policy expectations any less relevant.
- The normal ‘strategic policy making authorities’ are not able to exercise their policy role because the development has been deemed ‘nationally significant infrastructure’, with the Government/SoS assuming the role of ‘strategic policy making authority’.
- The Heathrow expansion project has massive implications for the future of the GB west of the capital with a strategic-scale of impact which should be mirrored by a strategic-scale of improvement to remaining GB land in the area around Heathrow.
- That GB area around the airport has been blighted for many years, subject to ad hoc/ incremental development (most notably Terminal 5), and now is the time for a holistic GB improvement plan, in line with para 138, to be brought forward under the DCO umbrella.
- This needs to embody a scale of GI mitigation beyond that necessary to offset individual impact on elements such as biodiversity, public open space and rights of way (which appears to be what is focused on in the PEIR).
- The scheme now being consulted on involves considerably more loss of GB than the illustrative scheme appended to the 2018 ANPS.
- The corollary is that significant areas previously shown for green infrastructure (or with committed land restoration schemes) are now shown for (airport-related) development and other infrastructure. Relatively speaking, the net effect is that we now see less comprehensive provision for Green Infrastructure.
- The national policy expectation for compensatory improvements to the ‘remaining Green Belt’ points to a major inadequacy in the overall masterplan and a more comprehensive improvement plan for the remaining Green Belt/ CVRP is therefore needed before the scheme can proceed to DCO. This will require improvement of more land than is included in the present DCO boundary.

3.2 Volume 1 Chapter 8 (Biodiversity)

Overarching Comments:

1. The ecological survey work to inform the baseline has not yet been completed.
2. Some sections of the PEIR are overly optimistic in their assessment of effects on biodiversity
3. Mitigation/compensation proposals in the PEIR are ill defined and inadequate relating to the scale of impact of the proposed development.
4. Heathrow should scope pollution events in. In the event of a pollution incident during construction or operation, HAL must offer an Enforcement Undertaking
5. Biodiversity offsetting metric should link to the forthcoming updated Defra metric
6. The DCO will have an unacceptable impact on protected species and the connectivity of habitats they require to survive. Particularly on species relating to the water

- 3.2.1 River pollution incidents are not included in the PEIR because of control practices during construction and similar measures in place for the current airport “effectively control the risk”. We do not agree with this assessment. In our view, the current control measures that feed into the Crane from Mayfield Farm are not successful 100% of the time. **Heathrow should scope pollution incidents in.** It should also identify how it would respond in the event of a pollution incident during construction or operation. **In the event of a pollution incident during construction or operation, HAL must offer an Enforcement Undertaking** to the Environment Agency. Further information on enforcement undertakings can be found here: <https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-statement> . We strongly support such an approach because of the unique combination of high quality environment and connections through watercourses within the Colne Valley and the Crane Valley.
- 3.2.1 **Creation of a new runway on top of four rivers, other streams and watercourses, will have an unacceptable impact on protected species and the connectivity of habitats they require in order to survive.** The in-filling of lakes and associated wetland habitats also has a serious negative effect. Culverting such an immense amount of important habitat is in conflict with London Environment Strategy targets to restore and enhance rivers throughout the capital, and will significantly set back the work of the Colne Valley Regional Park and the Colne Catchment Action Network.
- 3.2.2 The table below shows impact on ‘scoped in’ species related to the water environment with effects assessed by Heathrow as significant highlighted in red.

Overview of concerns

	Land take	Changes in hydrology	Fragmentation of habitats	Noise and vibration	Increased light intensity
Rivers					
Pointed Stonewort					
E. eel					
E. bullhead					
Barbel					
Fish assemblage					
BLE Bat					
D.Bat					
S Pip Bat					
C Pip Bat					
Otter					

- 3.2.3 The proposed biodiversity offsetting metric does not reflect the updated biodiversity metric that Defra is due to publish that will include “consideration of ecological connectivity” and “extended range of habitat types including green infrastructure and rivers”. **Heathrow Airport Ltd must link its biodiversity offsetting calculation to this updated Defra metric.**
- 3.2.4 Some of the **sections of the PEIR are overly optimistic in their assessment of effects on biodiversity**. For example, para 8.10.549 states there are three routes for Otters from the Thames to the Upper Colne that are not affected by the Covered River Corridor. However, of these, the Horton Brook does not currently have Otter records (para 8.10.534), so without habitat enhancement on the Horton Brook this route is not viable; the Crane and Grand Union Canal route states limited Otter presence along the Canal, therefore reasons for this must be investigated and habitat enhancement undertaken.
- 3.2.5 Appendix 8.6 Biodiversity Offsetting. Table 1.13 –we support offset locations but query why this applies to the Colne Valley only south of M4, while the whole of Crane catchment is in this zone – construction has a far greater impact on the Colne.
- 3.2.6 Appendix 8.6 Table 1.14 – for Rivers and Streams Lower Colne should have a lower multiplier than the Crane and upper Colne – given the unprecedented scale of impact in lower Colne (the M4 could be an appropriate cut-off point in this case).
- 3.2.7 The habitat priority inventory map 8.5 is incorrect. It only shows the Colne, and should be updated to include the other rivers.

3.3 Volume 1, Chapter 11 (Community (Open Space))

Overarching Comments:

1. We consider that a broader assessment than set out is needed. This would consider:
 - a. The functioning of and mitigation for open space (open space in its broadest sense), routes through it and its role for local communities.
 - b. The link to the strategic role of the Green Belt/Metropolitan Open Land(MOL) and in particular the Colne Valley Regional Park, which is greatly impacted upon.
2. This broader piece of work is necessary to take an integrated approach to green infrastructure/ routes through it and the mitigation to offset the large-scale impact of airport expansion. This is called for by the ANPS and the NPPF.
3. We consider the approach set out leads to a fragmented understanding of the functioning of the 'green' environment and the opportunities that should be grasped for mitigation.
4. With that context we offer some comment on the document and would highlight:
 - a. The assessment is difficult to navigate from an open space point of view, as it is presented within the Community Chapter.
 - b. The open space assessment is carried out against a low baseline of quality - there are reasons for that existing condition which should be explained.
 - c. We disagree with the determination of sensitivity, which should not only be based on the size of a space but on the benefits they provide 'across the board'.
 - d. We disagree with some of the categorisations and the associated assessment of the significance of impact/effect.

- 3.3.1 We have searched in the AEC for an integrated approach to how the impact on the 'green infrastructure' environment around the airport is assessed, and then comprehensive mitigation brought forward to offset that impact. This issue is inextricably linked with the role the Green Belt and MOL plays and should play on the edge of the capital.
- 3.3.2 We have not found such an approach in this Community chapter, nor does it appear in the 'In combination effects' PEIR document.
- 3.3.3 We see open space as a combined community/ landscape and visual/ biodiversity/ water environment/ government (planning) policy/ sustainability issue that merits its own section. We consider this integrated approach is critical in informing the shape of the masterplan.
- 3.3.4 The ANPS (paras 5.106 to 5.127) highlight aspects to be considered. The NPPF (para 138) highlights the need to offset release of Green Belt land for development by calls for a broad approach through "compensatory improvements to the environmental quality and accessibility of remaining Green Belt land". If, in this country there was ever a case where a broad approach is taken to the future functioning of the Green Belt, then this must be it. We understand around 1,300 acres of Green Belt will be lost to development as a result of expansion, most of which will fall within the CVRP.

- 3.3.5 In other sections of our response we call for a more integrated approach, leading to a more comprehensive green infrastructure mitigation so, collectively, we can see the Green Belt/CVRP functioning well from recreational, landscape and environmental points of view. We draw attention to our commentary on the PEIR, Volume 1, Chapter 2 'Legislative and policy overview'.
- 3.3.6 We look forward to seeing this integrated approach before the masterplan is completed and the shape of the DCO determined.

Baseline for Assessments

- 3.3.7 The open spaces and routes assessments are carried out against a low baseline of quality. There are reasons for that low baseline across the hinterland of Heathrow Airport, with the degradation of the outdoor environment frequently resulting from:
- Planning blight over decades
 - Land speculation linked to that blight
 - Weak planning enforcement linked to resources and the uncertain 'planning' context
 - Widespread mineral extraction and other temporary workings
 - Significant barriers to movement created by intrusive and major infrastructure
 - Inadequate coverage by and poor design of previous mitigation schemes and
 - Poor maintenance of private land and the public realm
 - The area sits on the edge of many local authorities resulting in a lack of co-ordination
- 3.3.8 An understanding of these factors should be demonstrated in the assessment, and a strategy, as part of the approach to green infrastructure, devised to avoid such problems recurring.

Draft London Plan

- 3.3.9 The Open Spaces Assessment needs to be reviewed and updated in light of the publication of the Draft London Plan in July 2019. Where emphasis in the current assessment is focused on open space policy (former Plan Policy G4), Policy G2 is equally, if not more, pertinent. Policies for health, recreation, design and place-making also need to be given greater consideration in the determination of significance.

Response to Scoping Opinion (Table 11.3.63)

- 3.3.10 We do not accept that the response to open space re-provision responds well to green infrastructure mitigation. The proposals for open space re-provision does not seize the opportunity to fully incorporate public open space into a wider strategic network of connected green infrastructure.

Uncertainty

- 3.3.11 The caveat in Volume 1, 11.5.9. 'to maintain access for communities to public open space as far as it is reasonably practicable to do so' leads to uncertainty. We would like to see greater commitment demonstrated to the protection/re-provision of high quality public open space facilities for those communities, colleagues and visitors who will need access to them. We are disappointed at the lack of positive statements, heavy reliance on caveats, and routine over-reliance on 'professional judgements' where detail is unavailable to enable professional

scrutiny. We consider many of the judgements overly optimistic, whereas a precautionary approach should be taken.

General - Open Spaces and Green Infrastructure

- 3.3.12 We disagree with a number of the categories assigned to sites. Size (area) has been used as the dominant factor in determining which category to assign. Other factors (e.g. multi-functionality) have been ignored or played down. This is compounded in the assumptions that users of lesser categories of open space are less sensitive to loss or change, leading to a reduced commitment to mitigation and a downplaying of the significance of impact on open space.
- 3.3.13 We do not accept the claim that impact on access to open space has been minimised. Much more could be done to improve accessibility, notably between the London (Green Grid) and the Regional Park. We remain disappointed that the essential need for active travel access routes across the M4 and M25 has still not been added into the scheme. These are essential to high quality continuity and connectivity being achieved.

Functionality

- 3.3.14 We recognise that the methodology used follows the approach typically used in local assessments. However, it doesn't lead to the sort of strategic response to open space re-provision within a context of landscape re-creation that addresses change at the scale relevant to this project.
- 3.3.15 Volume 11, S11.5.8. We consider a low bar is set for open space assessment and provision:
- Quantity: There is opportunity to increase the amount of open space available to communities by improving their connection with sites, and through a more creative approach to landscape and green infrastructure design.
 - Quality: Open space has declined nationally over several decades. A baseline is needed that drives an aspiration for improvement so that sites better meet their quality potential.
 - Accessibility: In the context of this major project covering such a large geographic area, opportunities should be sought to resolve open space deficiencies.

Categorisation of Open Spaces

- 3.3.16 We do not agree with a number of the open space categorisations. There is an over-reliance on size being the main determining criterion. There are sites – Harmondsworth Recreation Ground, for example – providing a range of recreational, community, landscape and wider environmental benefits. These are benefits more typical of District open spaces. Diversity of interest/use should also be used to evaluate the roles individual open spaces play. It is not appropriate to disregard these in the categorisations.

Updated Scheme Development Report - Document 4 Section 9

- 3.3.17 We disagree with the statement in 9.4.2 that open space connectivity has been robustly dealt with. Similarly, we disagree that the landscape it is proposed to create follows the green infrastructure principles agreed through early-stage consultation. Landscape mitigation should not be confused in this way with strategic green infrastructure design. Landscape mitigation only addresses the impact and effects of landscape change. Green infrastructure is a strategically connected multi-functional resource.

- 3.3.18 Fundamental gaps remain in the connectivity between sites in biodiversity, landscape and access/recreational terms. No satisfactory solution has yet been demonstrated to address the severance and extensive disruption that will be caused to access and recreational routes.
- 3.3.19 There has been no assessment to determine where land proposed as mitigation is suited to the re-provision of open space from a user perspective, nor, generally, where it might be integrated with other mitigation sites to optimise its multi-functionality in its sub-regional context.
- 3.3.20 Volume 2 Fig 11.11 does not identify all recreational routes in the study area. This section will need to be revisited/the map corrected (e.g. public rights of way routes east of Brands Hill, Slough).

Embedded Mitigation

- 3.3.21 The open space mitigation does not yet integrate well as part of a strategic connected green and blue infrastructure design.
- 3.3.22 Volume 11 Section 11.5.11-11.5.15 – This section is vague and adds to uncertainty. The proposals should include all mitigation where a need is identified in the (open spaces and other) assessments. The proposals should be unambiguous about the intended mitigation, and where it will not. There is currently too much reliance on work that is not yet under way or complete.
- 3.3.23 Where new embedded provision is to be made, specific design detail is required of the new space(s) to be created and the pedestrian/cycle access provisions to connect communities and their spaces.
- 3.3.24 There is repeated reference in the site-specific list of replacement ‘with an area at least as great as’. There is scant mention of the quality/ multi-functionality of provision, and how this will be measured.
- 3.3.25 A sufficiently detailed layout design and specification should be completed for all these sites prior to DCO, with public and agency consultation to enable quality to be evaluated. All aspects of design should involve independent design advice and scrutiny in accordance with the ANPS (ANPS 4.33).

- ***Harmondsworth Moor***

We welcome commitment to the redesign and improvement of the part of Harmondsworth Moor that will remain. There is little consideration about the interaction of the Moor with the rest of the Harmondsworth settlement, and the impact nearby highways will have on it. Greater thought should be given to how a legacy of real quality will be created.

- ***Longford Moor***

We support the creation of replacement open space. Colnbrook and Poyle are critically lacking in open space (Slough Open Spaces Framework). The provision of open space to serve these communities is necessary through the creation of a comprehensive ‘green envelope’, linked to extensive and accessible green infrastructure down to Stanwell Road.

- ***North and West of The Great Barn at Harmondsworth***

This is a vital open space in its context with the Great Barn. No consideration has been given to its potential role in the setting of this Grade 1 Listed and immensely important building. The realignment and burial of rivers will be harmful to the site's quality and appeal. It will be seriously affected by the close proximity of the new runway, with all its associated noise and aircraft movements, and by the diverted A4. Comprehensive landscape mitigation will be required to address changes at this site their impact on future users. There is potential for this site to play an important role in the wider mitigation in and around Harmondsworth. We remain disappointed there has not been a more proactive and creative approach taken. 11.5.12-14 Harmondsworth mitigation "may be developed through a community compensation fund". The compensation fund should not be used for mitigation where the effects were known. Mitigation for Harmondsworth should be embedded within the proposals.

Multifunctional Green Loop

- 3.3.26 11.5.9-12; we support the general concept to create continuous, connected green routes around the airport, but the alignment of the route needs to be improved and integrated into a comprehensive active travel network. Only in this way will it be attractive to use, realising its potential to link places, communities, and different parts of the airport.
- 3.3.27 This mitigation measure should specify that it embraces the west (and east) of the airport. We do not consider this mitigation measure, as currently expressed, would be effective or sufficient in relation to the sheer scale of impact of the AEP on GI/ Green Belt around the airport and within the Colne Valley Regional Park. We are concerned that undue reliance is placed on this measure. We comment elsewhere in this response on active travel, and we highlight the Joint Statement included with our comment on the PTIR (Active Travel) document.

Allotments as community facilities

- 3.3.28 11.29; allotments may be affected, but there are also opportunities throughout the proposal for other forms of community growing activity to be supported within green infrastructure. Allotment sites provide land for lease, normally restricted to individuals. We would like to see consideration given to the inclusion of community growing provision within the strategy for redelivering open space/green infrastructure close to communities, including close to Colnbrook and the east of Slough. Community growing represents an excellent opportunity for land to be brought back into productive use.

Health...where are the links?

- 3.3.29 The benefits open spaces deliver for health and well-being are under-represented. Similarly, the adverse effects caused by loss of open space is not well recognised. Creative design of open spaces can maximise benefits for health and well-being, notably by providing access to areas of relative tranquillity, contact with nature and creative play in natural environments.

Assessment of impact on the Colne Valley Regional Park.

- 3.3.30 There is no specific consideration given to the impact the proposal will have on the ability of the Regional Park to function into the future, offering a continuous 'green belt' resource west of London. The loss of green belt and open space is highly significant.

Further detailed assessments [11.71]

- 3.3.31 We welcome the intention to continue to undertake further detailed assessment. We would like to see greater integration of recreational open space within a more strategic GI network.

Loss of Open Space in Areas of Deficiency

- 3.3.32 Where areas are deficient in open space the expansion scheme should seek to address that deficiency – the scale of Heathrow expansion presents a unique opportunity to do this.

Table 11. 10 Further on-going work

- 3.3.33 We welcome further development of the strategy for open space and community impact between the PEIR and ES. Currently, we have insufficient detail available to allow us to judge the effectiveness of new open space, and proposals for retained spaces, as mitigation.

Embedded Mitigation

- 3.3.34 We welcome embedded mitigation, but cannot fully consider how appropriate or effective it will be until we see more detailed design proposals. These will need to demonstrate new spaces will be fully functional, of high quality, and with sufficient provision for their management and maintenance.

Replacement Sites

- 3.3.35 Replacement should not necessarily be restricted to the same open space category. It may be advantageous to replace local open space to form part of a larger District or Metropolitan open space provided for the same community. A more comprehensive GI provision could deliver this.
- 3.3.36 Overall, we feel the proposals too traditional in their thinking. Greater creativity could be applied to deliver something of real value to local communities, visitors and commuters alike.

Management and Maintenance

- 3.3.37 If successful, the expansion of Heathrow could create a significant new set of community assets including green infrastructure. If well designed, these assets could be unified to create truly world-class green infrastructure.
- 3.3.38 Clear proposals are needed (but are so far absent) for enduring and well co-ordinated management and maintenance across the green infrastructure around the expanded airport. In April 2019 the CVRP presented a proposal to Heathrow for an integrated management and maintenance arrangement for the area surrounding Heathrow airport. A copy is included at Appendix A4 (Ivers to Thames – Integrated Management and Maintenance). We are disappointed that this important issue has not been addressed.

Overarching Comments:

The CVRP makes overarching rather than detailed comments on this aspect:

1. The role of community access to well designed, integrated open space/ natural areas, as part of a wider network to promote active lifestyles and good mental health is underplayed and needs to be more prominent.
2. Mitigation is needed for the “significant negative effect” of expansion relating to changes in access to open spaces and healthy lifestyles.
3. Mitigation should embrace comprehensive Green Infrastructure design with high quality active travel routes passing through attractive, stimulating natural environments within the wider ‘masterplan’ area. These should be well integrated with Green Infrastructure and Active Travel routes in the sub-region - both as they exist and how they may be improved in future years.
4. This requires a wider analysis/ approach and we commend the 2019 Colne and Crane Green Infrastructure Strategy as one source document for this.
5. The surface access commentary in health focuses on trips to the airport/ for work and needs to be wider, embracing recreation routes and all Airport Related Development.

Overarching Comments:**The CVRP makes overarching rather than detailed comments on this aspect:**

The CVRP expresses its objection to and deep concern about the extensive and serious impacts on heritage assets as a result of expansion, both in terms of direct loss and serious harm to setting/ environment. In particular we highlight:

1. The loss of Longford Conservation Area and associated historic buildings – which make a positive contribution to the character of this part of the Colne Valley. With the extent of the proposed operational airport this impact is inevitable if expansion proceeds, but there is an absence of consideration of the impacts of demolition in Longford and other historic locations as part of the published Mitigation & Compensation Strategy.
2. The erosion of the character/ quality of Harmondsworth Conservation Area, associated historic buildings and its green setting. This principally arises from airport expansion and intrusion from the diverted A4. There is an absence of clear and imaginative mitigation for this that ‘re-invents’ Harmondsworth, giving it a secure future with a high quality wider environment. A coherent and ambitious place-making approach is needed for the village, the Great Barn and its wider green setting. Land to deliver this needs to be included in the DCO boundary, with finance to support initiatives.
3. The adverse impact on Colnbrook Conservation Area, in particular from aircraft movements, changes to the Colne Brook character (including from flood walls proposed to allow for proposed increased conveyancing of flood water in the Colne Brook through Colnbrook village), the diverted A3044 and construction activity. There is a need to devise a strategy to enhance the future health, investment and viability of the Conservation Area and community as a whole and avoid adverse impact from construction activity. Clearer plans, as part of mitigation, are required involving comprehensive improvements to green infrastructure (with pedestrian and cycling routes) around Colnbrook connecting the Colnbrook Conservation Area with its green hinterland and other heritage assets including at/ around Berkyn Manor Farm and Poyle Farmhouse.
4. Part of the mitigation for the impact on heritage assets needs to involve:
 - a) Improving the environment at and around Berkyn Manor Farm to better reveal this important heritage asset and celebrate it as part of comprehensive improvement to the green and historic environment generally to the south of Colnbrook.
 - b) Reflecting the need to protect/ enhance the setting of ‘Poyle Farmhouse’ in the decision around expansion of Poyle Industrial Estate. The CVRP objects to this expansion but also comments that, if a ‘very special circumstances’ case (Green Belt) is proven, sensitive master-planning must be committed to so the heritage asset contributes positively to the local environment as part of offering high quality access to the green hinterland/ remaining CVRP.
 - c) Creation of a high quality and more comprehensive network of active travel routes connecting remaining heritage assets to promote their enjoyment as part of the local area.

Overarching Comments:

1. The impact assessment needs to consider impacts at a more local level than it currently does to assess predicted impacts and effects on people and communities.
2. An additional assessment is needed to consider landscape and visual amenity in a broader way because of the sheer scale of landscape change (considering landscape in a wider sense).
3. All sites it is proposed to create for public access/enjoyment and recreation as mitigation should be assessed to inform design and assess their suitability for open space use in landscape terms.
4. There is too much reliance within the LVIA determination of significance based on assumptions about design and other mitigation measures, the detail of which is not yet available.
5. The period used for assessment of effects of mitigation (2065) (fifteen years after completion of the whole project), is not appropriate for a project of such a long duration. LVIA guidelines recognise the need for methodologies to be tailored to meet the specific needs of individual projects. The LVIA needs to assess the significance of landscape change within a timescale that reflects how people/communities will experience the change.
6. Green and Blue infrastructure concepts are not delivered through landscape mitigation design.
7. We have not seen evidence of independent design guidance being taken to shape the design processes.

ANPS and Scope

- 3.6.1 The ANPS and associated Environmental Statement were based on the extent and expectations of the project in 2018. There have been substantial changes since. The area affected is now larger and the losses to Green Belt and resultant impact on the landscape greater. The cumulative effects are also likely to increase.
- 3.6.2 Overall, we believe the increased size of the project requires a fundamental change to the approach to landscape design. The current proposals demonstrate a reactive response to landscape change, in part driven by the traditional approach taken to the assessment of impact and consequent mitigation. Addressing landscape change at this scale requires a landscape-led strategy, establishing a coherent, integrated, connected and functional landscape within the Regional Park context, informed by the Colne and Crane Green Infrastructure Strategy.
- 3.6.3 Please refer to our commentary on the Community (Open Space) PEIR document (Section 3.3) and the call, in the introduction, for a more integrated approach.

- 3.6.4 The ES should clearly evidence and justify the final extent of the study area used in the assessment of landscape and visual impact, having regard to the Zone of Theoretical Visibility.
- 3.6.5 The ANPS requires all aspects of the design of proposals are subjected to independent advice and consideration of functionality, fitness for purpose, sustainability and aesthetics, including the scheme's contribution to the quality of the area in which it would be located. As yet, we have seen no evidence that this independent guidance has been taken, or whether proposals now presented have, or are intended to be, considered by independent design experts. Currently, there is no design detail.

Methodology

- 3.6.6 GLAVIA advises that the guidelines, whilst appropriate for new and large-scale developments, should be used to assess criteria relevant to the individual development proposed. This project is of such a scale it falls way beyond the scope of normal development. In the CVRP's view, the methodology used by HAL is not fit for this project, notably the period used to assess mitigation (15 years after completion in 2050). Greater consideration needs to be given to the impact at a local level, and at more frequent intervals during the development period.

Illustrative material

- 3.6.7 The proposals present much illustrative material giving an impression there will be comprehensive landscape redesign. There is over-use of optimistic artists' impressions and excessive application of colour which gives a false picture of the extent of greening. Many illustrations present an ultimately unrealistic view of what can be expected.

Landscape strategy

- 3.6.8 The expansion project will fundamentally alter the landscape throughout the development zone. This landscape-scale change presents the opportunity to redefine the character and quality of specific areas/localities, and reverse some of the decline that has occurred. The approach to landscape change lacks an overall strategy for landscape re-creation. We are disappointed at the lack of integration between landscape assessment mitigation and design, and potentially related elements of the scheme, notably access route creation, design of biodiversity mitigation, incorporation of biodiversity into landscape design, and creation of aesthetically high quality river corridors.

Materials as a means of minimising/mitigating effects.

- 3.6.9 The ANPS requires that materials and designs for the Heathrow Northwest Runway scheme should be given careful consideration ANPS (5.217). This is to achieve appropriate mitigation through the detailed design of the development. No detailed designs are yet available. There is over-reliance on assumptions that design choices, including materials, will achieve the levels of mitigation claimed in the LVIA assessment. This is by no means certain.

Opportunities for Enhancement

- 3.6.10 This is a legacy project of international significance. If approved, it could create opportunities to improve the quality of currently degraded landscape within the airport, and within the area affected by the development. We are disappointed at the absence of landscape/green infrastructure legacy. We believe the proposals can be substantially improved in landscape terms. This will be dependent

upon good design concepts and detail. Again, design detail is not yet available to enable us to determine the extent to which these legacy elements might be achieved.

- 3.6.11 The proposals currently lack a coherent landscape design masterplan. It is not yet clear how access routes, rivers, biodiversity sites and open space will form an integrated, well-connected and functional landscape. Further work is needed to present this in the form of a Green and Blue Infrastructure Strategy which provides certainty about the land, and measures that will be delivered on the ground.

Rationale for reaching judgement conclusions

- 3.6.12 The assessment of impact and determination of significance of effects frequently rely on the masking effect expected from the presence of surrounding vegetation (LVIA, Volume 1 Assessment Tables). This is unsafe. It is not yet known what existing vegetation will be removed to facilitate construction, and what will remain.

Winter Conditions

- 3.6.13 The assessment does not illustrate what impact can be expected in winter, when screening will be diminished. Winter data and photographs need to be made available.
- 3.6.14 In our judgement, the assessment takes an over-optimistic approach whereas a greater degree of caution is needed if the assessment findings are to pass scrutiny. A precautionary approach would tend to place emphasis on winter conditions, rather than summer.

Lack of Certainty – accommodating mitigation

- 3.6.15 Some landscaping apparently to be relied upon to provide mitigation, cannot be provided in practice, notably along the netted river corridors, and for reasons of bird strike risk. Again, mitigation should only be claimed where there is certainty it will be provided. This requires the completion of more comprehensive and detailed design to allow a properly informed assessment process to be carried out.

Urban areas without a local landscape or townscape character assessment Slough/Colnbrook and Poyle

- 3.6.16 We have been unable to find the data from areas not covered by landscape character/ townscape assessment. This information is needed to aid our evaluation of the LVIA. The area most affected by the expansion, i.e. east of Slough and the areas of Colnbrook and Poyle, do not have robust local assessments. It is critical that the direct and highly significant impact on character and views in this area are thoroughly assessed, understood and mitigated. There needs to be a more robust consideration of the local scale effects on this area.
- 3.6.17 The assessment does not identify townscape character where areas are urbanised. There are substantial areas, for example to the east of Slough, and around Colnbrook and Poyle, where the character is urban. Colnbrook hosts an important Conservation Area. It is inappropriate to consider impact against an inappropriately scaled landscape baseline, where it should be assessed against a local townscape baseline.

- 3.6.18 We are led to understand that work to minimise and mitigate significant landscape effects is ongoing. As this work has not even been undertaken, it is premature to make statements in the consultation material assuming levels of mitigation can or will be achieved.

Viewpoints

- 3.6.19 We have been assured by Heathrow that additional viewpoints will be considered for the Environmental Statement. The CVRP CIC welcomes this commitment. Additional assessment is needed of the impact at a more local level than has been done to date. This is necessary to determine appropriate levels and locations of mitigation. It will also inform the needs of the Design Code, which will guide mitigation through design.
- 3.6.20 Insufficient consideration has been given to the proposals for the re-alignment of the M25, associated groundworks and elevated nature of the proposed new runway. We are concerned that the impact on the landscape caused by these substantial elements have not been thoroughly assessed, with the result that necessary mitigation will not be forthcoming. This is unacceptable.
- 3.6.21 We have requested additional viewpoints to be considered to address this gap, and for other key locations within the Regional Park, and expect to see these considered as part of additional LVIA assessment. This reflects the need for a more comprehensive and detailed assessment to be done to enable the more local, 'human scale' effects to be considered and addressed. We also recommend that receptor locations are periodically reviewed as the design of the proposals progress.
- 3.6.22 As detailed design proposals for elements of the associated developments become available, each will need to be subject to a review of localised impact/effects/required mitigation
- 3.6.23 We note the new site proposal for the relocated immigration facility has not yet been assessed because its location was established later than others. An assessment will be required for this site.

Lighting

- 3.6.24 We see no evidence that a thorough assessment has been carried out within the LVIA to address high-time effects and the impact of intrusive light sources in views (as opposed to spilt light).

Old Slade Lake and associated water bodies

- 3.6.25 It is proposed that Old Slade Lake is infilled. The land is not essential for the construction of the runway, t essential to enable accommodation of associated development. We do not see an assessment for this loss, nor an explanation of why the infilling is justified. The loss of this lake in the local landscape will adversely affect views and local quality/character. **There is no justification for this element of the proposal, nor mention of where and how this loss is to be mitigated.**
- 3.6.26 In our comments on the Preferred Masterplan (see Annotations of Draft 'AEC' Masterplan to highlight CVRP's concerns in Section 2.0) we also question the contribution an open space area here would make to high quality green infrastructure. If the infilling of the lake is to deal with spoil we consider that more imaginative and environmentally sympathetic proposals to deal with spoil are needed.

- 3.6.27 Landscape creation should include replacement of substantial standing water bodies as part of mitigation to add value to the character and quality of the landscape (see also biodiversity mitigation).

3.7 Volume 1 Chapter 17 (Noise and vibration)

Overarching Comments:

1. We consider there should be a discrete section considering specific impacts of noise on recreation areas and routes.
2. The introduction of noise in recreation areas and routes will diminish people's ability to enjoy them and reduce the value these facilities have for local communities and people visiting the Regional Park.
3. Greater consideration is needed of the likely impacts noise and vibration will have on people and wildlife within the Regional Park and how impacts will be mitigated.

- 3.7.1 Table 17.8 (Receptors requiring assessment for noise and vibration – non-residential receptors and quiet areas) excludes areas/routes used for recreation and points to other chapters e.g. community and landscape. But when we look at other chapters e.g. Community – at 11.1.5 (sub-section 4) we read that “Chapter 17: Noise and vibration – assesses the likely significant effects on people and places as a result of changes to ground and air noise, construction activity and road noise which has the potential to influence community facilities and recreational spaces/routes and community well being”.
- 3.7.2 Outdoor spaces used for recreation are sensitive to noise, especially where they are used for informal recreation within the Regional Park or for pastimes which rely on a degree of tranquillity (e.g. angling). We draw attention to ANPS section 5.65, which amongst other things requires “an assessment of the likely significant effect of predicted changes in the noise environment on any noise sensitive premises (including schools and hospitals) and noise sensitive areas (including National Parks and Areas of Outstanding Natural Beauty). In the context with Heathrow, the impacts assessment should consider how the expansion (and Airspace Change) will affect recreational users of the Regional Park.
- 3.7.3 It is not evident that the adverse impact of increased noise on recreation areas/routes has been specifically quantified and brought out in the PEIR, meaning this important dimension is not properly assessed.
- 3.7.4 We challenge the conclusion at 17.10.78 and 17.10.79 that because “noise from the DCO Project would be intermittent” and “users will not be exposed to any increased noise for long periods”, significant noise effects are considered unlikely on PRoW and impacts insignificant. The introduction of noise in recreation areas and routes will diminish people's enjoyment of

them and reduce their use/appeal.

- 3.7.5 There is no detailed assessment yet of the noise and vibration likely to arise from construction activities. Where alternatives are available priority should be given to avoiding noisy construction activities where they would affect sensitive locations. Where noise is unavoidable, all efforts should be taken to reduce noise levels to the minimum, not solely through the use of screens and barriers.
- 3.7.6 Noise and vibration assessments need to specifically identify where piling is to be proposed and what the effect of this method of construction would be on local people and wildlife. Please refer to sections 3.2 (Biodiversity) and 3.10 (Water Environment).
- 3.7.7 In view of the potential impact of airport expansion and altered flight paths on the tranquillity of recreational areas in the Colne Valley, and their enjoyment by the community, we ask for a discrete assessment considering the impact of aircraft noise on recreational areas in the CVRP. Such an assessment should take a broad view of what recreation embraces and include walking/ cycling/ horse-riding routes and fishing lakes/ rivers as well as parks and open spaces.

Overarching Comments:

The Colne Valley Regional Park makes overarching comments rather than detailed comments on this aspect:

1. Opportunity should be taken through management & maintenance of the wider landscape (see our response to Mitigation and Compensation in section 8.0) to offer local employment opportunities including apprenticeships/traineeships through the proposed Countryside Management Service
2. Impact on the viability of farm businesses should be explored (e.g. through loss of rented fields). Opportunities should be explored for agriculture (e.g. grazing) to be designed in as part of the multifunctional use of green space

Overarching Comments:

The CVRP makes overarching rather than detailed comments on this aspect:

1. Surface access is defined as relating to 'travelling to and from the airport'. This is too narrow as is the assessment of and mitigation for non-motorised users. A dimension dealing with recreational users and active travel routes is required.
2. The National Policy section (pages 19.5-19.8) fails to recognise the applicability of Para. 138 in the 2019 NPPF which refers to setting "out ways in which the impact of removing land from the Green Belt can be offset through compensatory improvements to the environmental quality and accessibility of remaining Green Belt land". This provision post-dates the 2018 ANPS.
3. As the expansion proposal involves the development of some 1,300 acres of green belt (GB) land, most of which is in the CVRP, this introduces a wider consideration about how accessibility (particularly for pedestrians, cyclists and horse-riders) should be improved in the wider area. The scale of impact on the GB requires comprehensive improvement in the whole zone around the expanded airport for non-motorised modes to promote recreational use alongside commuter use.
4. Opportunities for improvements need to be picked up in the analysis and mitigation and we draw attention to the opportunities identified in the 2019 Colne and Crane Green Infrastructure Strategy and the 2019 Joint Connectivity Statement (see annex to our commentary on the PTIR on Active Travel (Section 5.1).
5. Because of the major impact on/ land take from the existing green infrastructure/ Green Belt/ CVRP the document and related strategy should, as a minimum, include a section considering integration with recreational routes so that active travel is comprehensively promoted.
6. Please also refer to our comments on the Surface Access Proposals document.

Overarching Comments:

1. The combined Colne and Wraysbury River channels will result in an area of river with significantly poorer habitat quality, geomorphology and hydrology than is currently provided. The CVRP will not support any proposal that results in the permanent degradation of the rivers that characterise The Colne Valley.
2. Artificially merging and splitting the flow of the Colne and Wraysbury rivers may result in significant changes to each river's hydrology and ecology downstream of the airport. A formal agreement must be put in place to ensure that the Colne and Wraysbury continue to receive a base flow which is equivalent to the current average. The same consideration needs to be given to the flows in the County Ditch.
3. The diverted Colne Brook will result in an area of river with significantly poorer habitat, geomorphology, flow and groundwater connectivity than is currently provided. The CVRP will not support any proposal that results in the permanent degradation of the rivers that characterise The Colne Valley.
4. The impact of construction activities on local waterbodies has not been properly evaluated and is likely to have a significant effect. HAL must provide more detailed information in regards to the environmental controls that will be implemented to prevent the degradation of local waterbodies.
5. The concept of the covered river corridor is unproven and further evidence is required to demonstrate the schemes viability. We believe this will result in Heathrow seeking derogation under the Water Framework Directive, to which we are strongly opposed.
6. The Assessment of Water Environment Effects (Vol 1, Chapter 21.10) does not provide sufficient evidence to reach the conclusions that have been drawn. The significance of each effect is primarily based on assumption rather than robust scientific evidence. In addition to this, no effort has been made to assess the cumulative impact of the activities identified.
7. The measures embedded in permanent infrastructure are not reasonably practicable to implement in many locations. This will have implications in relation to Water Framework Directive Compliance. The CVRP will not support

3.10.1 **The combined Colne and Wraysbury River channels will result in an area of river with significantly poorer habitat quality, geomorphology and hydrology than is currently provided. The CVRP will not support any proposal that results in the permanent degradation of the rivers that characterise The Colne Valley.**

- 3.10.2 Combining the Colne and Wraysbury river channels will result in an area of river with significantly poorer habitat quality, geomorphology and hydrology than is currently provided. The merging of the river channels will also result in kilometres of riverine habitat being lost, with very few options for appropriate mitigation within the lower Colne WFD waterbody.
- 3.10.3 The loss of the Wraysbury River at Harmondsworth Moor will see the destruction of the highest quality habitat on the river, with its lower section being formerly modified to accommodate the construction of the M25. The diversion of the river into a heavily modified river channel will result in a river with no remaining natural reaches.
- 3.10.4 The combined river channel will be affected by a series of parameters that will prevent it from reaching good ecological status as defined by the Water Framework Directive. These are evaluated below:

Feature	Info	Effect
The presence of bird netting	Due to management implications there will be a requirement to plant trees away from the river channel, where they cannot grow under netted areas.	<ol style="list-style-type: none"> 1. Poor connectivity between river channel, riparian zone and floodplain. 2. No trees interacting with the river channel to aid morphological processes or to provide refuges for aquatic wildlife. 3. Increased exposure to sunlight leading to a high risk of algal blooms, rises in water temperature and associated water quality issues. 4. A new physical barrier to the movement of birds and bats.
The creation of a series of new surface water and (potential) waste water discharges.	The impact of new surface and wastewater discharges has not yet been robustly assessed.	<ol style="list-style-type: none"> 1. Increased levels of suspended solids. 2. Increased input of phosphates and nitrates. 3. Increased BOD relating to the use of antifreeze agents. 4. Decreased DO relating to the use of antifreeze agents. 5. Changes to the hydraulic regime of the river during times of high rainfall. 6. Increased risk of algal

Feature	Info	Effect
		blooms when considered in combination with impact of sun lit netted areas.
The potential for new areas of river bed to be lined	The total area of lined river channel has not yet been outlined by HAL.	<ol style="list-style-type: none"> 1. Loss of groundwater connectivity. 2. Reduction in flows. 3. Change in hydrology. 4. Restriction of natural morphological processes. 5. Possible impact on water quality. 6. Potential risk of contamination from landfill sites.
The installation of new structures to control flow.	New structures will obstruct fish passage and limit morphological processes.	<ol style="list-style-type: none"> 1. Cumulative effect of structures will limit fish passage even if fish passes are installed. 2. Impoundments limit sediment transport and negatively alter the rivers hydrology. 3. Potential to alter flow rates to reaches downstream having a knock on effect on local ecology.
Creation of new areas of covered river corridor	The total area of river to be covered by the runway and other transport infrastructure is vast (over 1km).	<ol style="list-style-type: none"> 1. Habitat connectivity severed for both aquatic and terrestrial wildlife due light and noise pollution. 2. Habitat connectivity aquatic and terrestrial wildlife affected by light levels within covered river corridors. 3. Reduction in the diversity of aquatic plant communities. 4. Overall viability of scheme in regards to future management.
Cumulative effect	We believe the cumulative effect of these features will prevent the lower Colne waterbody from reaches good ecological status in regards to	<ol style="list-style-type: none"> 1. Reduction in habitat quality. 2. Severance of habitat connectivity. 3. Poorer water quality.

Feature	Info	Effect
	WFD.	4. Reduced groundwater connectivity. 5. Changes to hydraulic regime. 6. Reduction in morphological activity. 7. Potential risk of contamination from landfill. 8. Potential knock on effects to reaches of river downstream.

3.10.5 **Artificially merging and splitting the flow of the Colne and Wraysbury rivers may result in significant changes to each river's hydrology and ecology downstream of the airport. A formal agreement must be put in place to ensure that the Colne and Wraysbury continue to receive a base flow which is equivalent to the current average.**

3.10.6 Merging and splitting river channels via the provision of new control structures can result in significant changes to hydrology and ecology downstream from where the flow split occurs. A range of scenarios have been identified that may occur within the combined river channel.

- Low flow conditions may result in the crest of structures not being overtopped by water, leading to areas of river channel drying out downstream.
- Blockages arising from the accumulation of large trash, wooded debris and aquatic vegetation can occur within a river channel, resulting in changes to flow rates controlled by artificial structures.
- Control structures such as tilting weirs and penstocks are often affected by mechanical faults which prevent them from functioning efficiently. For example they may jam shut or open, or become blocked.

3.10.6 To prevent these issues from occurring and to hold HAL accountable if they do, a formal agreement must be produced to ensure that the Colne and Wraysbury Rivers continue to receive a base flow which is equivalent to the current average for the appropriate time of year. We are concerned that the infilling of feeder channels will affect (reduce) flows into the County Ditch. We seek an assurance that flows in the County Ditch will be maintained on the same basis.

3.10.7 **The diverted Colne Brook will result in an area of river with significantly poorer habitat, geomorphology, flow and groundwater connectivity than is currently provided. The CVRP will not support any proposal that results in the permanent degradation of the rivers that characterise the Colne Valley.**

- 3.10.8 We have serious reservations in regards to the proposals to divert the Colne Brook through a landfill site. Lining the bed and banks of rivers reduces benthic habitat complexity and prevents groundwater connectivity. This loss in groundwater connectivity is likely to have an effect on water quality and hydrology.
- 3.10.9 The new channel will also be of a greater linear area than the exiting river corridor. This entails the gradient of the river bed will be significantly reduced, which will result in a watercourse with slow and impounded flows with little geomorphological activity.
- 3.10.10 There is also a risk of contaminants from the landfill area leaching into the newly-created river corridor, or contaminating the river during construction. Once contaminants enter the watercourse, other areas of river with groundwater connectivity are likely to be effected. We do not want to introduce this risk to the river catchment.
- 3.10.11 We are also concerned about the proximity of the river to the proposed railhead and new runway. This will impose a high degree of human pressure on the river channel and will have implications for habitat connectivity for migratory wildlife.
- 3.10.12 The previous table of features and effects should also be used to further illustrate our concerns regarding the new Colne Brook river channel.
- 3.10.13 **The impact of construction activities on local waterbodies has not been properly evaluated and is likely to have a significant effect. HAL must provide more detailed information in regards to the environmental controls that will be implemented to prevent the degradation of local waterbodies.**
- 3.10.14 The Creation and operation of construction sites will lead to a large increase in the surface area of bare earth and soil surrounding each watercourse. An increased amount of sediment will be washed into the river channel following rainfall, significantly altering water quality and catalysing the siltation of the river bed. With construction happening over such a large area, it will be extremely difficult to put measures in place to effectively control run-off and reduce sediment loading to local watercourses.
- 3.10.15 The dewatering of waterbodies also has the potential to significantly increase sediment loading to each watercourse within the construction zone. We suspect the rivers in that zone will receive the discharges arising from drainage and excavation activities. Even with proper sediment control measures in place, the impact on receiving watercourses is likely to be pronounced as those measures will only reduce the amount of sediment being discharged rather than removing it completely. Drainage activities will be happening on such a large scale that the increase in sediment loading to receiving watercourses will inevitably be significant irregardless of the control measures that are in place.
- 3.10.16 No evidence has been provided of the agreements reached with Thames Water regarding the use of its waste water infrastructure during construction. Through past partnership working

with Thames Water, we understand that waste water infrastructure within the vicinity of the airport is already operating at capacity. It is also often far from perfect, with regular interactions between surface water and waste water sewers being common place during times of high rainfall.

Habitat Quality and Connectivity

3.10.17 Construction is set to take place over 30 years. Despite provisions being made to replace aquatic habitats following completion of the work, these habitats will be absent for a long period of time. This encompasses the time required to construct the DCO and the time required to allow habitat creation schemes to become established. No evidence has been provided to demonstrate that this will not have a significant effect on habitat connectivity for both aquatic and terrestrial wildlife.

3.10.18 **The concept of the covered river corridor is unproven and further evidence is required to demonstrate the schemes viability. We believe this will result in Heathrow seeking a derogation under the Water Framework Directive, to which we are strongly opposed.**

3.10.19 The covered river corridor is an unproven concept that has not yet been shown to be viable. We have serious concerns surrounding the following issues.

1. Evidence is required to demonstrate how irrigation for plant species outside of the wetted width of the river channel will be provided.
2. Most plants require a specific photoperiod in order to survive. No evidence has been provided to show how light / dark hours will vary by season.
3. Many plant species require specific light intensities in order to survive. No evidence has been provided in regards to the lighting requirements of specific species that will be introduced to the covered river corridor and how these will be met by artificial and natural light sources.
4. Plants on the banks of the river will be effected by the hydraulic regime of the watercourse during times of flood. The frequency that the river laterally expands will effect the viability of certain species.
5. The covered river corridor does not provide an area of continuous habitat, but relies on 'ecological islands' being created. We would prefer continuous habitat to be provided.
6. There is also no legal requirement for Heathrow to manage the CRC to the standard to which it was created. Therefore we cannot put our faith in such a scheme and categorically dispute the claim it will be of greater benefit to the rivers ecology and geomorphology than a traditional culvert.
7. Due to the proximity of the river channels to the runway, protected species will be significantly impacted by noise and vibration and light intensity e.g. European Eels.

3.10.20 We believe that whether or not Heathrow manage to implement this scheme, the proposals for the CRC could prevent the future attainment of good WFD status and therefore a

derogation will be sought under Article 4.7 of the Water Framework Directive. In such instances, applicants must provide evidence to justify their case (i.e. explore all other alternatives) and must also demonstrate they have sought to avoid deterioration of the water environment.

3.10.21 Throughout the consultation period the CVRP have advised HAL to produce a design which does not incorporate the covering of river corridors. We are not satisfied with the reasoning provided by HAL to opt for their preferred design over other options discussed with the CVRP. We believe other designs were not disregarded for environmental reasons, but rather to pursue a masterplan that HAL had already shown preference for, for alternative reasons. We believe that Heathrow's obligations under WFD have not been met.

3.10.22 **The Assessment of Water Environment Effects (Vol 1, Chapter 21.10) does not provide sufficient evidence to reach the conclusions that have been drawn. The significance of each effect is primarily based on assumption rather than robust scientific evidence. In addition to this, no effort has been made to assess the cumulative impact of the activities identified.**

3.10.23 The *Assessment of Water Environment Effects* evaluates the activities that have the potential to alter the water environment. The assessment attempts to determine the *magnitude of change* and the *significance of the effect* that each activity will have on receiving waterbodies.

Cumulative Effects

3.10.24 Each activity listed within the assessment, is assessed individually and no effort has been made to assess the impact of these effects in combination. We believe that the combination of activities effecting receptor waterbodies will have a significant affect on both habitat quality and water quality.

Lack of evidence

3.10.25 We would expect that wherever a *magnitude of change* or *significance of effect* has been assigned to an activity, there would be robust evidence to demonstrate how such a status was determined. After evaluating the documents listed within *Appendix 21* that support the *Assessment of Water Environment Effects*, we conclude that insufficient evidence has been provided in order to assign a status to many activities and therefore such statuses are misleading.

3.10.26 By means of example, we have included an appraisal of the Surface Water Quality Assessment that informs much of the Assessment of Water Environment Effects.

Surface Water Quality Assessment (Vol 3, 21.1)

Assessment of the Construction Phase (5.0)

Construction activities relating to surface water quality are assessed within the *Surface Water Quality Assessment* and the *Draft Code of Construction Practice (CoCP)*. The activities

and their status (as listed in the *Assessment of Water Environment Effects*) are provided in the table that follows:

Activity	Waterbodies effected	Magnitude of change	Significance of effect
Infilling of lakes	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant
Earthworks stockpiling	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant
Dewatering activities	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant
Borrow Pits	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant
Demolition of buildings	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant
Construction working areas	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant
Haul routes crossings in proximity to rivers	Horton Brook, Colne Brook, Wraysbury, Colne, DNR, Longford	Low	Not significant

Each construction activity is shown to have a low/not significant effect on receiving waterbodies. This status has been assigned on the basis of there being appropriate environmental control measures outlined within the *CoCP* to prevent polluted surface water from entering receptor waterbodies during the construction period. The *CoCP* does not provide method statements to demonstrate how the activities listed will be undertaken, nor does it provide sufficient detail regarding the environmental controls that will be implemented.

We believe that the creation and operation of construction sites will lead to a large increase in the surface area of bare earth and soil surrounding each watercourse. An increased amount of sediment will be washed into the watercourses following rainfall, resulting in the water quality of receiving waterbodies being affected (increased suspended solids and reduced dissolved oxygen levels). The increase in sediment entering the waterbodies will also result in habitat degradation, primarily the siltation of each river's gravel bed which provide valuable spawning habitat for resident fish populations.

The dewatering of waterbodies also has the potential to mobilise pollutants and significantly increase sediment loading to receptor waterbodies within the construction zone. Even with proper sediment control measures in place, the impact on receiving watercourses is likely to be pronounced due to the geographic scale and time period over which the activity is proposed.

We are aware that no method of sediment control is 100% effective, even for small scale projects. We are unable to draw parallels to other construction projects, as none match the scale of Heathrow expansion. A bespoke programme of environmental control measures, and information on how these relate to construction methodology, must be provided by HAL to demonstrate how it was concluded that construction activities would not significantly impact the environmental quality of receptor waterbodies.

Assessment of Permanent Changes to Road Drainage (6.0)

Changes to road drainage are assessed in the *Surface Water Quality Assessment*. The activities relating to road drainage and their status (as listed in the *Assessment of Water Environment Effects*) are provided in the table below:

Activity	Waterbodies effected	Magnitude of change	Significance of effect
New drainage networks, with possible discharge of airfield runoff	Colne, Wraysbury, DNR	Low	Not significant

The impact of new drainage networks has not been properly assessed despite the magnitude of change and significance of effect being assigned within the *Assessment of Water Environment Effects*. In order to provide sufficient evidence to support the status that has been assigned, The Highways Agency Water Risks Assessment Tool (HAWRAT) must be used to model the impact of new drainage networks. We believe that it is misleading to have assigned a status to this activity when the appropriate modelling has not been conducted and when no detailed designs for new drainage networks have been provided.

Assessment of BOD, Orthophosphate, PFOs & PAHs in Operational Airport Discharges (7.0 – 10.0)

Activity	Waterbodies effected	Magnitude of change	Significance of effect
Potential discharge of airfield runoff	Colne, Wraysbury, DNR, Colne Brook	Low	Not significant

In order to accurately forecast the impact of surface water contaminants in operational airport discharges, a numeric model must be used. We would also expect such a model to take into account the predicted increase in aircraft using the airport as this directly influences the degree of surface water contamination. The table below provides an assessment for where this has been undertaken.

Element assessed	Numeric modelling undertaken?	Future airport capacity considered?
BOD	Yes	No
Orthophosphate	No	No
PFOs	No	No
PAH's	No	No

We believe that it is misleading to have assigned a status to this activity when the appropriate modelling has not been conducted and when no detailed designs for new drainage networks and surface water treatment facilities have been provided.

We also believe that there are a number of more obvious parameters that have not been assessed. Further assessment should be provided in regards to the impact of operational discharges on the water quality of receptor waterbodies, with specific reference to: dissolved oxygen, PH, alkalinity, suspended Solids, oils/grease, ammonia, phosphates, nitrates.

Waste Water Treatment and Discharge (12.0)

Within the Waste Water Treatment and Discharge assessment an alternative measure is proposed for a new waste water treatment plant located to the North of the airport. It is proposed that this would discharge into the Colne or Crane Catchment. As this proposal has not been finalised, the impact on receptor waterbodies is not assessed in the *Assessment of Water Environment Effects*. We believe if potential waste water infrastructure is proposed, the impact on the water environment should be assessed and considered in combination with the perceived impact of other new discharges to receptor waterbodies.

3.10.27 **The measures embedded in permanent infrastructure are not reasonably practicable to implement in many locations. This will have implications in relation to Water Framework Directive Compliance. The CVRP will not support any scheme that is not fully compliant with WFD or results in the permanent degradation of the rivers that characterise The Colne Valley.**

3.10.28 The measures embedded into permanent infrastructure (MEPI) outline the environmental principles and habitat features that will be incorporated into the design of the new river corridors. These features are designed to ensure Water Framework Directive (WFD) Compliance. On face value, the measures outlined portray a river corridor that is in keeping with aims of the WFD. On closer inspection there remains a lot of ambiguity and assumptions within the assessment in regards to the extent of works and application of the MEPI. There is

widespread use of terms such as “as reasonably practicable” and “where applicable” without stating where it is not practicable or applicable.

3.10.29 We have identified many features within the new river corridors that would prevent the implementation of these measures and we believe further investigation undertaken by HAL will reveal the MEPI cannot be widely applied as stated, or will require significant alteration. This will have significant impacts on the schemes viability in relation to WFD compliance.

3.10.30 Below is an evaluation of the features of the new river channel that will prevent the implementation of the MEPI in many areas:

Total area of bird netting

3.10.31 Heathrow have not yet defined the locations of river channel to be netted for wildlife hazard management purposes. If netting is proposed as part of the design for the new river corridor, it needs to be included within the assessment, with the potential impacts adequately outlined and mitigation identified.

3.10.32 We anticipate the majority of the river corridor on the Western boundary of the airport will require bird netting. The presence of bird netting will prevent the planting of trees on the banks of the river and will limit interactions between the river channel and floodplain. The absence of trees shading the river channel will result in an increase in water temperature due to increased light exposure, which is likely to lead to algal blooms and water quality issues, especially in areas of lined river channel or areas receiving new surface and wastewater discharge from the airport and associated transport infrastructure.

New structures and new impoundments

3.10.33 A series of new structures will need to be installed within the new river channel to merge and split the flow of the rivers. It is uncertain whether any work has been undertaken to assess the impact of these structures on hydrology, sediment transport and habitat connectivity, or if the need for these structures can be avoided.

3.10.34 We believe the structures proposed will cause impoundments, resulting in areas of river with increased depth and reduced flow. The structures will also limit sediment transport; catalyse the siltation of the river bed; and have a cumulative effect on fish passage. A high density of in channel structures can result in a reduction in fish passage even when fish passes are appropriately installed. This in combination with the impacts of land take, changes in hydrology, fragmentation of habitats, noise and vibration and increased light intensity will result in a watercourse which is not navigable for fish species and other aquatic wildlife.

Areas of lined river channel

3.10.35 New river channels that pass through contaminated areas will be lined with clay. Lining river channels will have a negative impact on both water quality and flow. We have not yet received

a clear indication of where all contaminated areas lie within the DCO footprint. Therefore we are assuming that areas of river in addition to the river Colne Brook will require lining and a wider area of river channel will lose groundwater connectivity than those currently specified.

New Surface Water Discharges

3.10.36 The new river channel will receive new surface water discharges, discharges from the airport's thermal strategy and potential discharges from waste water treatment facilities. The cumulative effects of these discharges have not been thoroughly assessed. We will therefore assume that they will have a negative effect on receptor watercourses. Contaminated surface water discharges in combination with increased water temperatures (resulting from thermal strategy discharge and unshaded netted areas of river) are likely to result in severe algal blooms, oxygen crashes and the presence of sewage fungus on the river bed.

Areas of covered river corridor

3.10.37 Despite there being a measure listed to ensure that new areas avoid transport infrastructure, the masterplan shows that vast areas of river corridor will be covered, either by the runway or other transport infrastructure. We cannot identify any examples where road infrastructure has been moved to accommodate the river channel; therefore it is reasonable to assume that this measure will not be implemented.

Overarching Comments:

The CVRP makes overarching rather than detailed comments on this aspect.

1. This is a specialised area of assessment but a fundamentally important one. We recommend that this element of the assessment is subject to specialist independent scrutiny and validation.
2. There is no accepted method for assessing in-combination effects of a development, where the same receptor is affected by the same scheme in different ways. In the absence of a standard methodology for the in-combination effects assessment, and of any comparable assessment of a scheme of this scale and duration, more work is needed to develop a methodology for the in-combination effects that will be fit for this project.
3. The topic specific assessments, notably for landscape and rivers draw on too many assumptions that mitigation measures that have not yet been designed will be effective in reducing the impact of the development.

4.0 SURFACE ACCESS PROPOSALS

Overarching Comments:

1. Broader and more imaginative approach needed to active travel to draw in recreational routes alongside an enhanced hub and spoke network
2. Airport related movements need to be widened to embrace airport related development, not just colleague movements.
3. Impact of traffic in the villages and smaller roads in the Park is a significant concern and both information on traffic levels and a comprehensive mitigation package is lacking.

Comments on Specific Sections

- 4.1 Para. 1.1.1.1 - Surface access is defined as relating to 'travelling to and from the airport'. This is too narrow, as is the assessment of and mitigation for non-motorised users. A dimension dealing with recreational users and active travel routes is required. Para 138 in the 2019 NPPF is also relevant here where it refers to setting "..... out ways in which the impact of removing land from the Green Belt can be offset through compensatory improvements to the environmental quality and accessibility of remaining Green Belt land". A broader approach is required.
- 4.2 Para 2.6.57 and 2.6.58 – We note the goals and targets are yet to be developed. It is disappointing that a draft has not been developed at this stage. We look forward to being engaged in a far-reaching and innovative set of goals and targets for active travel. This links across to Environmentally Managed Growth, which should embody these.
- 4.3 P. 294 provides headline points on "Developing an active travel network" but no reference is made to the opportunity for integration with recreational routes/ green infrastructure.
- 4.4 p.318 (4.3.8) On the subject of monitoring this links with the Environmentally Managed Growth framework. We highlight the need to avoid traffic growth and worsened air quality within the CVRP and Green Belt and monitoring of that needs to be provided for.
- 4.5 Para. 4.3.35 states "Modifying the approach to include areas that are 'airport-related' beyond the boundary shown above would be difficult to define and impossible to measure". We challenge this, as a much broader view should be taken. Considering only 'colleagues' and measuring movements solely at the airport perimeter is too narrow, and overlooks the large amount of traffic associated with airport-related development that congests local roads. An holistic view is needed for all airport and airport-related development in the area. We note an absence in this section of analysis and explanation of the long-term role of the rail-head to the north-west of the airport. This involves major land-take from and intrusion into landscape (in its broadest sense) of the CVRP and Green Belt. Whilst its use in connection with construction

is understood the scale of facility needs to be fully justified in terms of permanent land take from CVRP and Green Belt. This should include a review of the layout design of this NW quadrant to improve the provision for Green Infrastructure. We note that Appendix 3, at page A13, deals with Rail but omits mention of the rail-head.

- 4.6 Page A35 to A39 (Active Travel) – We consider that a much stronger and broader approach is needed to active travel that integrates recreational route provision alongside commuter routes and in respect of the latter there is considerable scope to enhance the ‘Hub and Spoke’ concept.

General Comment about traffic impact on villages and smaller roads in the CVRP

- 4.7 Firstly we would highlight that the southern half of the CVRP is affected by a number of large, nationally significant, infrastructure projects. Of these Heathrow Expansion is the most significant. But there is also Western Rail Link to Heathrow, M4 Smart Motorway, HS2 and Crossrail. There is also the continuous urban growth/ re-development and increased densities in and around the Colne Valley. There are Air Quality Management Areas in this zone.
- 4.8 Individually Heathrow expansion creates pressure on the rural environment in the CVRP (and cumulatively with other projects) from construction traffic, HGV’s and rat running. Villages like the Ivers, Colnbrook and Horton and the local roads around them suffer in terms of health and environment. This will impact on the enjoyment and safe access for walkers, cyclists and horse-riders across the CVRP in this southern section of the Park. This enjoyment and safe access is something Heathrow expansion should improve upon, not worsen.
- 4.9 We consider that the information within the consultation provides insufficient evidence on the potential traffic change on the local highway network across the CVRP, both in relation to the construction and operational phases of expansion. It is unrealistic for there not to be significant pressures and impact in this zone. Mitigation measures across this whole zone are lacking and a comprehensive package of traffic information and remedial measures are urgently needed for consultation. Even if modelling eventually suggests lesser traffic levels a package of measures across the villages and smaller roads in the CVRP is needed to reinforce traffic habits and avoid adverse impacts arising.
- 4.10 We understand, and do not agree, that that the ‘no more traffic pledge’ fails to include construction activities and airport related development. We are concerned about Heathrow’s ability to meet the ANPS’ targets of ‘mode share’ and ‘no more traffic’.

5.0 TRANSPORT - Preliminary Transport Information Report (PTIR)

5.1 Volume 4 of 6 (Active Travel)

Overarching Comments:

1. A broader approach to active travel is needed, both in geographical terms and in terms of embracing recreational routes.
2. The 'Green Loop' concept is welcomed but needs to be greatly developed as part of a more comprehensive active travel network
3. Too much uncertainty remains
4. We draw attention to our Joint Connectivity Statement with relevant LAs

- 5.1.1 P.6: Considers “active travel to, from, and within the vicinity of the airport by colleagues, air passengers, and non-airport users, and the active travel infrastructure within the airport campus, connecting to the airport campus and in the areas surrounding the airport.” This approach to active travel needs to be much broader to consider recreational travel in the wider area around the airport, most significantly within the CVRP corridor. This is necessary because of the major impact on/ land-take from the Park.
- 5.1.2 Para. 2.4.6 considers “emerging technologies like electrically powered bicycles and scooters” and states “Accordingly, while these types of activity could potentially increase the uptake of active travel as a mode of transport to and from the airport, and also potentially extend the geographical range over which active modes are a feasible means of travel to the airport, they are not explicitly considered in the PTIR.” We question why this is the case, as this mode could contribute positively to reducing traffic/pollution.
- 5.1.3 Graphic 3-16 (Cycle routes serving areas to the south-west of Heathrow) On p45 it is incorrect in showing an off-road cycle route across Staines Moor.
- 5.1.4 Graphic 3-20 (p53) shows the ‘Potential green infrastructure loop’ and at 3.3.16 is described as: “the green infrastructure loop is intended to provide a leisure route for local communities and visitors to enjoy”. Whilst attractive routes in the vicinity of the airport are welcomed, the concept should embrace a much wider agenda to promote recreational active travel across the CVRP and other areas of Green Infrastructure/Green Belt, in view of the major impacts on that land resource.
- 5.1.5 Para. 3.3.28 “To the west of Heathrow and east of M25 there is an off-road cycle route alongside the River Colne, which would fall within the proposed boundary for the expanded airport. This route is also part of the PRoW network and would need to be diverted or removed as a result of the proposed Project. Proposals for the replacement or diversion of this route are still under consideration. Further information about these proposals will be provided

in the DCO application.” Greater certainty is needed and projects should be placed in the context of delivery of a comprehensive active travel network.

5.1.6 Para. 3.3.29; “Towards the western extents of the expanded airport boundary there is a cycle route that provides a connection between the Colnbrook Bypass (A4) and Lakeside Industrial Estate. This route is an identified cycle route but has no dedicated cycle infrastructure and would need to be diverted or removed as a result of the proposed Project. Proposals for the replacement or diversion of these routes are still under consideration. Further information about these proposals will be provided in the DCO application.” Greater certainty is needed and projects should be placed in the context of delivery of a comprehensive active travel network.

5.1.7 Please also take on board:

- Comments we make elsewhere here on transport, in the sections addressing the PEIR Transport Network Users report and the Surface Access Proposals document.
- The Joint Connectivity Statement issued by the 4 local authorities and the CVRP, which is included below.:



Joint statement concerning Quality of Connectivity for Active Travel with links to Green Infrastructure required as part of Heathrow Expansion – July 2019

Statement by Slough Borough Council, Royal Borough of Windsor and Maidenhead, Chiltern & South Bucks District Councils, Buckinghamshire County Council and Colne Valley Regional Park (the 'parties')

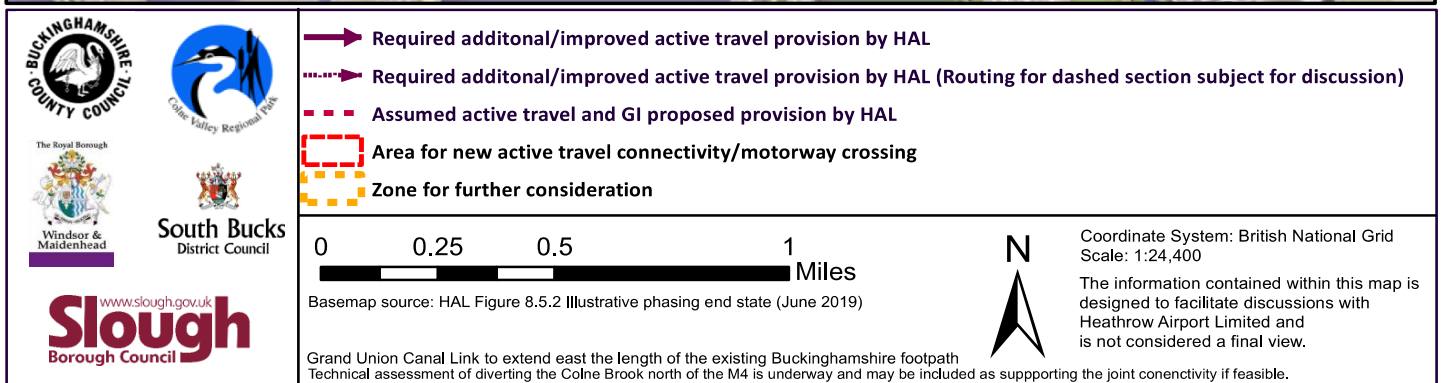
The parties state:

1. We want to see a high quality network for multi-directional, active travel linked, where appropriate, to green and blue infrastructure across a part of our area that is a narrow and fragile section of the Green Belt and Colne Valley Regional Park. That section extends from north of the M4 to Wraysbury Reservoir.
2. We want routes that are attractive for use by both workers and for recreation that can form part of a programme for improved longer distance networks. They should enhance the existing network and create attractive connections with, and between employment locations, community, heritage, and countryside/ leisure facilities.
3. Our statement is prepared in the context of the emerging HAL masterplan 'A02' and related information on GI/ travel that is subject to the June 2019 public consultation.
4. We are mindful of the 2018 ANPS, the HSPG Vision Statement for Green and Blue Infrastructure (December 2018) and the HSPG's Position Statements on Environment and Transport.
5. This statement and map has been prepared with the view to seeing improvements to HAL's masterplan/ related proposals so that there is a level and form of mitigation that all parties can support, if the amount/ location of development shown is ultimately proven to be justified and acceptable through the DCO process.
6. This statement does not imply acceptance by the individual parties to particular development proposals advanced by HAL and the parties may take different stances.
7. Our map shows routes for cycling and walking that we consider are needed in the masterplan. These are necessary for HAL to deliver to ensure an adequate level of mitigation and a high quality of connectivity. This level of comprehensive provision for active travel connectivity in this zone is necessary to move towards mitigating the impacts of Heathrow Expansion and support delivery of its objectives set out in Heathrow 2.0 including:
 - a. Meeting the ambitious targets to reduce Heathrow Airport colleague car trips by 25% by 2030 and 50% by 2040.
 - b. Enabling healthy and sustainable alternatives to local car trips to tackle local traffic, air quality and carbon emissions offsetting some of the effects of expansion.
 - c. Providing the communities most affected by expansion with improved access to enhanced green space, supporting better quality of life.
 - d. Addressing the major and strategic scale of impact on the Green Belt, CVRP and green infrastructure generally.
8. Our map also shows where proposals by HAL are assumed (and which need to be clarified) in order to create an attractive network. The arrows at the ends of proposed routes indicate the connections needed to destinations beyond the 'focus' area.
9. To understand what connectivity benefits will accrue from the GI already shown by HAL on the masterplan we seek clarity regarding the scope for public access/ routes through each parcel,
10. As well as a masterplan that delivers the extent and quality of connectivity required we want to be assured of the long-term maintenance regime.

Map to accompany Joint Connectivity Statement



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6.0 CONSTRUCTION PROPOSALS

Overarching Comments:

1. The length of the construction period (peak 2020-2026 and onwards to 2050) is exceptional. 'Temporary' impacts will affect the environment and communities for many years. Mitigation must have regard to the length of time construction impacts will be experienced.
2. The green envelope around Colnbrook is essential to give a degree of protection to residents of Colnbrook from construction and operational impacts arising from the expansion of the airport. We object to it being used for construction purposes.
3. We have significant concerns about the potential for serious impacts from construction on rivers and watercourses. We need to be reassured that all necessary measures will be put in place to ensure their full protection.
4. It is claimed that impacts from construction will be avoided/reduced/mitigated through the imposition of a Design Code of Practice and good design. Detail is not yet available for these aspects of the proposal.
5. We want to see details of how construction will be monitored and managed, including how Heathrow will provide real time local control and how corrective measures will be implemented.

- 6.1 The construction site plans by years (Construction Proposals, Building an Expanded Heathrow Graphics 3.2 – 3.8) help our understanding of the locations of construction and to some degree their timing. They demonstrate that a considerable area will be affected, and where local communities and infrastructure (road networks etc..) will be disrupted by construction processes (noise, dust, traffic, light pollution, workforce accommodation and general disruption). A plan needs to be included identifying the location of all intended construction sites at, or immediately after, commencement (currently 2021).
- 6.2 The construction sites are considered 'temporary'. However, they will be in place for many years. Some will be converted to permanent development later in the delivery of the expansion.
- 6.3 Whilst the initial phase, (commencement to runway operation) may be relatively short (six years from 2020-2026), the full project timeline will affect local people for 30 years (commencement in 2020 until completion in 2050). This is an exceptionally long construction phase. Although sites may be considered temporary in planning/construction terms, their effects on communities will be long term. Mitigation needs to be proportionate to the length of time the adverse impacts will be experienced.

- 6.4 We are concerned at the over-reliance placed on the impact being mitigated through good design or other detail not yet available for evaluation.
- 6.5 The current planning regime is likely to result in variable standards being applied to such matters as quality of design, where there needs to be consistency across the expansion zone and local planning authorities. Enforcement levels are also likely to be inconsistent. We believe it is essential that a single joint planning body should be responsible for all local planning consents and enforcement, and that this is properly resourced to have the capacity it will need to undertake the role.
- 6.6 It is not safe to assume mitigation will have the desired beneficial effects until it is designed and its specific details evaluated. In the absence of detail within the consultation material there can be no certainty the envisaged design will be delivered.
- 6.7 It is proposed some construction works (forming part of and solely needed to facilitate the expansion) might start before the DCO decision is made. This should not happen. Development solely required to deliver the expansion project should not start until a DCO decision regarding expansion and the full design detail associated with the works has received consent.
- 6.8 We are concerned about the local planning arrangements for those elements of the scheme which (currently) fall outside the scope/jurisdiction of PINS/SoS. The disparate planning framework cannot be relied upon to provide planning decisions and planning enforcement consistently across the whole project. Whilst this is a matter to be determined through the DCO process, the proposals should recognise this weakness and recommend a suitable alternative arrangement. We would like to see a single independent, fully funded joint planning arrangement put in place.
- 6.8 We have found it difficult to appreciate the full effects all the construction proposals will have for people and communities. Whilst the impact of some construction work can readily be identified and understood, it will only be possible to determine many potential effects after examination of detailed information. That detail is not yet available.
- 6.9 The assessment of the impact of construction only considers traffic associated with the delivery of the main sites connected with the expansion. It states all construction traffic will access the airport from the main arterial network. This cannot be true for construction traffic required to deliver the variety of disparate construction and mitigation sites distributed throughout the DCO area and beyond. Construction of these sites will require the associated traffic to use local road networks. Dramatically increased road traffic volumes will have a direct and adverse effect on local residents and their communities.
- 6.10 Paragraph 4.1.3 - The assessment of traffic impact is incomplete. It does not consider construction activities outside the DCO area, and appears to omit some sites proposed to provide mitigation, for example Poynings and land south of Poyle. The proposal must identify all land implicated in project whether for construction, core airport facilities, airport-associated development, or is land required to mitigate their impact. The omission of

significant sites means the conclusions reached in the construction impact assessment cannot be relied upon.

Rivers and Watercourses – risks of pollution and sedimentation

- 6.11 We have also commented about the potential for construction activity to cause harm to rivers and other watercourses in the section response on the water environment (Section 3.10), and biodiversity, (section 3.2).
- 6.12 The extent and nature of construction activities create many significant risks that the water environment of the five local rivers will be polluted or otherwise harmed by the airport expansion project, the processing of soils and materials, and heavy construction road traffic. This is not sufficiently well considered to enable appropriately detailed preventative measures to be put in place.
- 6.13 Detail is required about the preventative measures to be put in place to protect the rivers system from things like run-off, siltation, spillages. Protection will require that water environments are effectively isolated from development processes unless there is intervening water treatment. In the event of a pollution incident an enforcement undertaking should be offered to the Environment Agency – see the comments on the PEIR biodiversity chapter.

Temporary Road Crossings – Old Slade Lane Bridge and Road Crossings

- 6.14 We would like more specific information about the locations and type of all crossings, whether they are vehicular or conveyor systems, temporary or permanent, their type/design and the period they will remain in place.
- 6.15 We understand temporary road crossings will be created for some construction traffic, at Poyle. There is reference to the removal of Old Slade Lane bridge and replacement with a temporary structure. We would like to have clarity about the logic applied to the provision of temporary bridges (road/rail/river) in places close to where there are cases for mitigation to include permanent crossings for pedestrians and cyclists. We highlight, in particular, the need for a better crossing point for active travel over the M4, west of the Old Slade Lane bridge.
- 6.16 Details are not provided of the locations of all temporary bridges over public roads and routes. Proposals need to include these, and their design, with details about how long they will remain in place.

Qualification of ‘temporary’

- 6.17 We need to have much greater clarity about the design of temporary sites, operations and structures. We recognise that the term is used in accordance with its planning definition, but this project will continue for 30 years, with intensive construction for six years (if the project is delivered on target). Some ‘temporary’ sites etc.. will have a degree of permanence.
- 6.18 Whilst some sites, operations and structures will not remain at the end of the construction phase, the length of time they will be there has implications for determining what will be appropriate for their design and mitigation. Where design and mitigation is concerned, we

would like to see the use of 'temporary' qualified, with more definite statements about their duration, design and mitigation. The design code should include specific guidance about the appropriate design of 'temporary' structures, with commitment to design quality and aesthetics that respects how long the sites will overshadow people/communities/areas.

Segregated Construction Traffic

- 6.19 Service roads are not shown on relevant graphic figures (Construction Proposals Graphics 5.3-5.8). Has the impact they will have on people, and scheme design, been assessed – for example, how they might affect or compromise appropriate site perimeter landscaping/aesthetics/views ?

Design

- 6.20 We recognise it is too early to expect to see detailed designs of each site. We do, however, expect to see design codes that will direct site design. We would like to see this developed further into design briefs for each site.
- 6.21 In the absence of design detail and with no design code, we are unable to assess the precise impact construction and construction site design will have on the landscape quality/character and local communities. Without design briefs, we are unable to consider the positive or negative roles that site design might have on the overall project proposal. We recognise there is potential for the design/layout of the interior of some sites to contribute to landscape and green infrastructure design/connectivity.

ANPS Policy

- 6.22 The ANPS requires that the proposal demonstrates that all appropriate measures are considered to mitigate impacts, including during construction. The Scheme of Development cites ANPS policy (SoD S. 11.3) but is selective. The ANPS requires mitigation for all effects arising from construction not restricted to those in S 11.3. The ANPS further requires that mitigation is delivered through good design. This includes impacts on landscape and aesthetics. The construction proposals should provide information about how these other types of mitigation will be addressed.

Temporary Sites

- 6.23 We are concerned that considering construction sites as 'temporary' will lead to economies in their design. These sites need to be designed to minimise their impact on the quality of local landscape/townscapes, alongside mitigation measures to avoid/minimise/reduce their other environmental consequences. We would like to see details of the intended design of these sites, notably what visual impact they will have on local street scenes and views.
- 6.24 The Design Code should specifically identify the approach to be taken to the design of construction sites, especially prominent elements like security fencing, signage, lighting and their general perimeters. Design of these sites should be 'proportionate' to the length of time they will affect areas, and the need to create/maintain a sense of place with good aesthetics.

Construction impacts and management of the local realm

- 6.25 Construction activities will affect cleanliness of roads and the public realm throughout the airport zone. Measures need to be included within the proposals to enable high levels of cleanliness to be maintained in all affected areas. Cleanliness standards should also be specified in the Code of Construction Practice (CoCP).

6.1 Draft Code of Construction Practice

Overarching Comments:

1. We welcome the proposal for construction activities to be controlled under a code of practice. It will need to be binding on all involved in construction activities, whether directly employed by Heathrow, by contractors/sub-contractors.
2. There remains a lack of detail as to what the Code of Practice will include or specify. In its current form it cannot be relied upon to reduce mitigation needs.
3. We foresee many risks arising from construction activities, notably the significant risks to rivers and water courses. We wish to see extensive provision within the Code for the prevention of harm to these systems and reinstatement/compensation if an incident occurs.
4. The Code will need to address the impacts that construction activities will have on people's ability to enjoy recreational facilities, whether for formal or passive recreation, existing or new.
5. We wish to receive more definitive information about how the code of practice will be enforced, who will enforce it and what actions will be taken when the practices are not followed.

6.1.1 [5.6.6]; we welcome the commitment to implement a Code of Construction Practice and consider the draft provided with the consultation to be a robust initial framework document. We would like to see further development of specific controls/standards/practices Heathrow Ltd will prescribe.

6.1.2 We have identified where we anticipate risks arising from construction in other sections of this response, notably for the water environment. Our principle concerns regarding the effects of construction:

Code of Construction Practice and Monitoring/Enforcement

6.1.3 No code of practice has any value without appropriate control systems, proactive enforcement and appropriate corrective/punitive powers being brought to bear where the code fails. It is not clear where these responsibilities for monitoring and enforcement will lie. It is not safe to rely on current public sector/agency control mechanisms (Environment Agency/ local authorities), which do not have capacity to carry out these functions.

6.1.4 There need to be proposals outlining how the relevant agencies will be supported to enable them to meet the pressures this colossal project will place on already stretched resources.

6.1.5 There is over-reliance on assumptions that mitigation will be forthcoming, and that detailed design will remove risk. The Code is currently very high level. It needs to be developed further

to offer more precise measures for the prevention of incidents, and how they will be dealt with if they arise. This lack of detail is a critical deficiency here, and throughout the material provided for the assessment of the expansion project.

Water Management

- 6.1.6 We welcome the intention to provide a water management strategy, but are concerned this is not available for consideration now. It is not sufficient to rely on safeguards in a strategy that has not yet been written and scrutinised.
- 6.1.7 Rivers and watercourse will be at high risk of pollution and degradation resulting from construction activities. As a rule, a minimum protection zone should be identified for these features wherever they run through or are adjacent to construction sites or are affected by associated construction work.
- 6.1.8 Sedimentation and pollution risks need to be addressed both in the design of construction sites and operational codes of practice.

River Monitoring

- 6.1.9 Live, real-time monitoring is essential to the protection of the river environment. The proposals do not currently address this need. We expect Heathrow to facilitate this monitoring through the provision of monitoring equipment and funding for the management of monitoring processes. Monitoring measurement should follow a methodology agreed with the Environment Agency. The CoCP should prescribe how monitoring data is to be used and how responses are to be made when incidents occur.
- 6.1.10 Monitoring should be started at commencement (including commencement of any pre DCO enabling works) and continued throughout the construction phase (2020 – 2050).

Severance – recreational routes

- 6.1.11 It is unclear whether or how the continuity/connectivity of recreational routes will be retained where they will be affected by construction activities. In our experience, rights of way are poorly considered where they are affected by development and construction and permissive routes are barely considered at all. Diverted routes need to be convenient and be appealing to users.
- 6.1.12 Construction activities will cause potentially widespread interference with the connectivity and quality of access to the Green Belt and wider Regional Park. The proposals need to firstly avoid disruption where possible. Where it cannot be avoided, we wish to see proposals that minimise disruption and outline how the quality of user experience will be maintained, for example through the re-routing of rights of way on appropriately wide and landscaped corridors. The Design Code needs to include prescriptions for the design of temporary rights of way diversions.

Construction workers

- 6.1.13 There will be 14,000 workers at peak time (2023). We are concerned about the lack of certainty about where and how workers will live, as Heathrow nor its contractors will be able to control this. 6.1.14[5.6.3]. We are concerned that many will use uncontrolled sites or that land will be offered privately for caravan parking etc., with a consequent impact on green belt, open spaces and the public realm generally.
- 6.1.15 Past experience of other large construction projects (T5, Crossrail) have demonstrated a high influx of workers working, or hoping to work, on these projects. As well as putting pressure on existing temporary accommodation, this led to a high level of illegal camping in areas outside the control of construction companies, notably in more remote countryside and green spaces.
- 6.1.16 No method is proposed to control or manage how workers who choose not to take up accommodation sites will live. A voluntary code will not provide effective or enforceable control. If a Code of Conduct for Workers is to be relied upon, its terms must be obligatory and linked to employee contracts of employment, whether they are to be employed by Heathrow Ltd directly, or by contractors/sub-contractors. The Code will also need to specify control measures for the implementation of the Code throughout the construction community.
- 6.1.17 Provision should be made to support local authorities in their control of situations which fall outside the remit of Heathrow and contractors.

Parking

- 6.1.18 Not all the re-provision of parking sites lost to construction will be completed until 2030. The proposals state there will be no overall increase in parking or parking demand.
- 6.1.19 How is this affected by the fact the airport will continue to operate with the same parking demand, but car parking will be lost to construction activity? We would like to have clarification about parking management and how unmet or displaced (unmanaged) parking in local areas close to the airport will be addressed.
- 6.1.20 How is construction staff parking to be provided and controlled? Not all construction workers will choose to use accommodation sites. Many will drive to work. How – precisely – will this demand be met?

Construction Vehicles

- 6.1.21 There will be many different contractors and sub-contractors working on this project. The CoCP should cover how these contractors behave while on and off site. All contractors, their construction vehicles, plant and staff on the project should be readily identifiable as part of the Heathrow expansion project.
- 6.1.22 We would like to be involved in the development of construction practices, notably where they seek to address risks to rivers, will have a direct impact on recreational resources, and are intended to reduce adverse visual effects on areas within the Regional Park.

- 6.1.23 Currently, there is an over-reliance on practices being developed later as part of contractor submissions at procurement stages.
- 6.1.24 What is included in the DoCP does not set measureable standards for the practices to achieve. There is opportunity within it to specify more precisely what the outcome of CoCP measures are to be, for example, 'to achieve nil discharge of sediment to watercourses', or to meet the design requirement as prescribed in the Design Code. This approach would give the document greater credibility and enable outcomes to be monitored and measured effectively through the delivery programme.
- 6.1.25 We recommend a specific section is added within the CoCP relating to compliance with the (yet to be provided) Design Code. This is to ensure less permanent or more incidental components of construction-related activities take visual/aesthetic considerations into account.
- 6.1.26 The PEIR review committed to further engagement with local authorities prior to DCO submission in order that a COCP will be submitted with the DCO application, to become a certified document. Without the CoCP it is not possible to consider whether the mitigation claimed will be achieved
- 6.1.27 We note the reference in the CoCP to a Worker Code of Conduct. We have been unable to locate this. Again, we welcome the intention to have controls in place to encourage appropriate employee behaviours and seek to minimise their impact on local communities and the local area. However, this does not go far enough.
- 6.1.28 It is not sufficient to rely on a code if it is to be voluntary. Control of construction workforce behaviour must be obligatory. For this to be achieved it will be necessary to make it conditional as part of employee employment contracts, whether they be employed directly by Heathrow Ltd or Heathrow's contractors or sub-contractors. A Workers' Code of Conduct must be clear and unambiguous about enforcement and implications when workers do not meet the standards it requires.
- 6.1.29 The CP states the COCP will set out locational working hours. However, it does not. Only generic references are made to location where the application of working hours rules/exceptions to precise locations is essential if we are to be able to consider potential effects on landscapes/biodiversity/communities.
- 6.1.30 We would like to see provision for support to be given to the appropriate local enforcement agencies to enable the impact to be addressed if and when they arise.

Overarching Comments:

The CVRP makes overarching rather than detailed comments on this report:

1. Doc. 1, Ch. 3 (Masterplan Options): The analysis of options to reach the masterplan now being consulted upon reveals an inadequate approach to master-planning with insufficient attention to 'landscape-led' layout design. This is necessary and justified because of the scale of land take/ loss and landscape change in an area designated as Green Belt/ MOL, where most of that loss lies within the CVRP. We draw attention to our response to work request Env11A earlier in 2019 (see Appendix A), which outlined the more comprehensive approach needed. This has not been taken into account.
2. Doc.4, Ch. 1 (Rivers/ Flood): The evidence of impact on the rivers and their ecology and the draft design for realigned river corridors is an inadequate basis to firm up the scheme design and proceed to DCO. There are very serious concerns about the adequacy of the environment being created for rivers. Further detail of impacts, consideration of more options (with adequate time for formal consultation) is required before DCO submission.
3. Doc.4, Ch. 9 (Landscape Mitigation): This report (e.g. Fig 9-3, page 9-10) reveals how:
 - a. The masterplan design has not been adequately landscape-led
 - b. It takes the amber 'required for associated development' as givens in the master-planning process, whereas they should be challenged because of adverse impacts on Green Infrastructure (GI) delivery/ quality
 - c. No recognition of the NPPF Para 138 requirement for environmental/ accessibility improvements to 'what remains'
 - d. Ranks the majority of the GI in the CVRP/ GB closest to the runway expansion as 'highest priority' for GI, but then still omits some parcels of land/ water-bodies in that zone that, if included would make the masterplan GI mitigation more comprehensive
 - e. This 'medium green'/ highest priority land needs to be brought into the masterplan and DCO as part of GI mitigation
 - f. The LVIA is not well enough developed to determine final Preferred Masterplan proposals for reasons we have set out elsewhere in this consultation response, it being based on a limited number of receptors, over-reliance on mitigation through 'good design' where design detail is not available, no winter assessment (when impacts most significant), too many 'judgements' made where evidence is not available.
4. In summary the level of GI mitigation currently proposed in the masterplan is an inadequate base to firm up the layout of the scheme for the DCO submission.

Con'd

5. Doc.4, Chapter 14, (Water Supply): This does not refer to the impact on rivers/ groundwater – an issue that needs to factor in the decision on what final solution to choose.
6. Doc.5 (Future Runway Operations): Whilst we support the protection and improvement of the living environment for residents affected by runway operations/ airspace change, we express serious concern at the lack of attention to the impact of runway operations/ related airspace change on the enjoyment of the countryside GI environment, including rights of way, in the sub-region. This environment needs to be improved rather than worsened.

8.0 MITIGATION AND COMPENSATION

Overarching Comments:

1. We support the commitment to create a Compensation Fund but this must not reduce the commitment to embed mitigation for the effects of construction. The compensation fund should provide additionality, not be an alternative to embedded mitigation.
2. There needs to be greater clarity about what mitigation is, what is compensation and what the fund would be used for. We would expect the fund to go above and beyond short-term projects.
3. Proposals are needed for the ongoing management and maintenance of the green infrastructure/public realm In the area around the airport The CVRP would welcome the opportunity to discuss and agree how this might be embedded into the proposals for the DCO application.
4. A management/governance body should be established to oversee the allocation of compensation funds to projects. The fund should be released in advance to the governing body to enable efficient release and delivery.
5. Heathrow Airport Ltd should compensate for the permanent loss of approximately 900 acres of the Colne Valley Regional Park by resourcing a boundary review with the objective of ensuring that the integrity of the Colne Valley as a Regional Park is conserved.

- 8.1 We do not consider the mitigation proposals presented in the range of PEIR documents sufficient or robust enough to provide certainty that sufficient mitigation will be delivered. Whilst many references are made to effective mitigation, limited information is given what that mitigation will be. There is a thematic lack of detail and heavy reliance is placed on details yet to be provided/designed, for example, a Code of Construction Practice, and the Design Code.
- 8.2 We object to some of the claims for mitigation, notably Water Environment (Page 11). Channelling rivers beneath the new runway is not sufficient mitigation for the impact of expanding the airport. Significant additional mitigation will need to be demonstrated to offset the loss of functionality of river corridors that will result.
- 8.3 Wherever reliance is placed upon mitigation to render proposals acceptable in planning terms, the specific nature, extent, location and design of that mitigation needs to be available. Without this, effectiveness of the mitigation cannot be measured.
- 8.4 Overall we are also concerned about the language used to describe mitigation, with high reliance on uncertainty: 'potential', 'may', 'where practicable'.

- 8.5 We support the intention to provide a compensation fund to assist communities and community projects. This fund must:
- Be strategic in nature, going above and beyond the short term 'project' funding provided by other sources e.g. Hillingdon Community Fund, Heathrow Community Fund, landfill tax. The Heritage Lottery Fund's former 'landscape partnership' scheme is a good example of how an element of the fund might be structured.
 - Incorporate means to fund management and maintenance
 - Have a higher priority for communities and landscapes that are 'eaten into' by the expanded airport, and for areas immediately adjacent to it
 - Operate in perpetuity

Embedded Mitigation

- 8.6 Wherever adverse effects arising from the development are identified, whether at construction or operational stages, mitigation should be embedded within the expansion proposals and delivered in accordance with the assurance that mitigation sites will be complete by 2026.
- 8.7 Specific funds should be set aside to address needs for mitigation where consequence of expansion were not predicted but result from construction or operational elements of the expansion. This would avoid reliance on the compensation fund to deliver mitigation for reasons that were unforeseen, but result directly from the development. A set-aside fund of this nature would provide some confidence that unforeseen events can be addressed with appropriate speed and without undue negotiation, and without risk to the compensation fund.

Management and Maintenance

- 8.8 Mitigation of losses/*degradation* etc.. of landscape/biodiversity/open space etc. cannot be achieved without continuing management and maintenance of the newly-created assets, or the additional costs to maintain improved sites/infrastructure and the wider landscape outside of the mitigation sites. This management and maintenance will require revenue funding throughout the mitigation period, whether the functions are delivered directly by Heathrow or by third parties.
- 8.9 Heathrow airport will become an even more important gateway to the country, with a worldwide audience. For many people, their experience of the airport and the area around it will be their first and lasting impression of the country. It is imperative that it creates a good first and lasting impression. The CVRP CIC has offered Heathrow assistance to develop options for the continuing management of a strategically-delivered and sustainable green infrastructure resource as part of the mitigation of effects on the Regional Park (Appendix A4).

- 8.10 The standard of design and quality of much public realm around the airport is currently very poor. To avoid this continuing, comprehensive management and maintenance should be undertaken in perpetuity for the whole area around the airport . We stress that this should be an holistic, not an individual site-by-site, approach. It should provide a blanket cover for GI mitigation sites and public realm, and provide additionality to the management and maintenance provided by or through local authorities. This could be delivered via a countryside management service or similar approach for the Colne Valley Regional Park and surrounding areas of green space.
- 8.11 We see benefit in this role being performed by a single organisation/agent across the zone.
- 8.12 We presented proposals for management maintenance to Heathrow Airport Ltd for consideration in February 2019 (see Appendix A). We would like to see this or similar proposals included in the DCO application. We look forward to working with Heathrow to develop this further in advance of the DCO application.

Integration, management and maintenance of land for biodiversity mitigation

- 8.13 The mitigation proposals rely on biodiversity sites being created outside the proposed DCO boundary. We are gravely concerned there will be uncertainty about sites which fall outside the scope of the DCO as their delivery and management will be dependent upon Heathrow being able to secure local landowner agreements. These agreements will not necessarily come to fruition, and even if they do, there is no certainty they will be managed and maintained in perpetuity. Whether biodiversity objectives can be agreed or not, it is highly unlikely landowners will agree to some of the multi-functional additionality required if these sites are to fulfil their wider GI potential.

Boundary Review

- 8.14 Heathrow Airport Ltd should compensate for the permanent loss of approximately 900 acres of the Colne Valley Regional Park by resourcing a boundary review looking at opportunities to incorporate additional parts of the Colne Catchment (e.g. River Ash corridor at Staines) into the Regional Park
- 8.15 Following this review, and if suitable areas are found, HAL should provide funding enabling the Colne Valley to operate in these areas – to ensure no additional financial obligations are placed on local authorities

9.0 ENVIRONMENTALLY MANAGED GROWTH

Overarching Comments:

1. This is a very important area that needs to monitor all aspects relevant to the creation of an acceptable environment around, and affected by growth at, the airport
2. It is conspicuous that the natural environment is not included. A natural environment strand needs to be added to address this.
3. This is necessary because of the extensive and fundamental changes proposed to the green environment and rivers/ water-bodies around the existing airport.
4. Achieving this, with a high quality and successful operation of the green infrastructure and river/ water-body systems in a wide area around the airport, needs to be carefully monitored and remedial measures taken as appropriate to ensure the legacy intended is secured and the 'conditions' of future growth factor this aspect in.
5. We look forward to being engaged in how this natural environment strand is developed as part of a holistic 'environmentally managed growth' approach, governed by a truly independent body.

General Comment

- 9.1 We welcome, in principle, the initiative to have an 'environmentally managed growth' regime.
- 9.2 We note that the four 'conditions' proposed relate to:
- Air noise;
 - Air quality;
 - Surface access (transport); and
 - Carbon
- 9.3 Whilst these aspects are important, they are inadequate to reflect key environmental considerations.
- 9.4 The concept needs to be widened to bring in other aspects related to the environment that need to be monitored as part of ensuring a high quality environment exists, as intended, around an expanded airport. In particular, the four 'conditions' need to be complemented by a strand relating to the wider natural environment. This is so the impact on and quality of the natural environment around the airport is monitored, embracing the delivery and maintenance of agreed standards in perpetuity, including:
- Richness in biodiversity
 - Protection against pollution and remedial measures in the event of incidents
 - River levels and water body quality

- Landscape quality and maintenance in the wider zone around the airport (including the southern half of the Colne Valley Regional Park), including care of active travel routes and landscaped/ open areas

- 9.5 This approach is necessary in recognition of the major impact on the green and blue environment around the airport – with some 1,300 acres of Green Belt lost, most in the CVRP, and five rivers diverted/ placed under the runway in unnatural channels. It would reflect the wider responsibility that the DCO promoter must have. It is essential that the green infrastructure and water environment in the wide area around and within the airport, post-construction, is monitored to see how successful it is operating and functions to a high quality standard.
- 9.6 Embracing these additional aspects is essential to creating an appropriate framework within which the airport would be obliged to operate, and the operator encouraged to drive continuous improvement in the environmental performance of not only the airport, but also its environs.
- 9.7 The ‘other’ category identified by HAL where existing regimes are deemed to apply is not adequate to address this aspect.

Comment on Specific Sections

- 9.8 2.1.11 - at this para it is explained that the four aspects were selected because “they represent the main effects that arise from growth in operations (increased throughput of passengers and aircraft) at the airport, rather than its construction or physical land use impact. It is these effects which will increase as the use of the expanded airport intensifies, unless they are mitigated.” We consider that the responsibilities must be wider, and must relate to the natural environment around the airport.

3.2 Surface Access:

- 9.9 Delivery and monitoring should be wider than merely colleague movements and a technique devised to assess movements relating to ARD. Whilst this may be more challenging to monitor, it is not a reason to exclude it. It is inextricably linked to airport expansion, and is a critical factor in an already congested and polluted area.
- 9.10 Also there should be a focus on the delivery, maintenance and improvement of the active travel network (functioning not only for commuter use but also for recreational use). This does not appear to be covered.

3.3 Air Quality.

- 9.11 We ask that the effects being monitored relate not only to on-airport operations, but also to ARD as it is an essential component of the airport operation.

3.4 Aircraft Noise

- 9.12 The proposed definition for Heathrow’s noise envelope, set out in para 3.4.8 as; “Heathrow’s noise envelope is a set of legally binding and enforceable limits and controls to manage noise in the future while enabling growth.” is too vague and will not adequately protect both the built and countryside/ outdoor recreational environment around the airport.

4.2 Independent Scrutiny Panel

- 9.13 This is welcomed in principle, but it needs to be truly independent. The composition needs to be broader in order to reflect the addition of a natural environment strand

Appendix A

Landscape Opportunity Projects- HAL Work Request ENV11A

- A1 Colne Valley Park CIC – Supporting Statement**
- A2 Integrated Green Infrastructure Design**
- A3 Colne Valley Park CIC – Other Projects**
- A4 Integrated Management and Maintenance**



Supporting Statement to the Colne Valley Regional Park's submissions in response to Heathrow Airport Ltd's request for Landscape Opportunities using supplied proforma – March 2019

Context

David Price (HED, on behalf of Heathrow Airport Ltd – 'HAL') emailed Stewart Pomeroy (Colne Valley Regional Park - CVRP) on 4th February 2019, with an accompanying proforma, explaining that:

"As part of the HEP External stakeholder process we are seeking potential sites and projects that could be brought forwards as part of the project. The aim of this process is to capture all potential projects that could benefit HEP and the surrounding landscape and townscape, biodiversity and heritage assets."

The CVRP also received the same proforma via the HSPG and accompanying work request ENV11A.

On 28th February 2019 members of the CVRP team met with David Price, Neil Sheriff and Monique Van-Den-Hurk (HAL) and discussed the scope of the CVRP's intended submissions – submissions which have been shaped by those discussions.

The CVRP has made clear its opposition to expansion at Heathrow because of the scale of impact on and loss of extensive areas within the Park. The CVRP is a natural environment resource for the capital, nearby communities and visitors and forms a key part of the metropolitan Green Belt. Whilst maintaining its opposition the CVRP also wishes to engage positively with the Heathrow Expansion Project (HEP) to contribute to a high quality outcome.

Our objective with the CVRP project submissions

Our suggestions are pitched at the strategic level as we consider that, in this stage of the HEP design process it is critical to address the big challenges for the landscape in the area around Heathrow.

Our objective, in summary, is to see comprehensively designed green and blue infrastructure across that area to produce a fully integrated landscape that works effectively for both people and wildlife, with excellent connectivity and barriers to movement overcome.

We consider the comprehensiveness of approach across a wide area is critical – the extent of that area reflecting, and mitigating for, the scale of the impact on the CVRP and the Green Belt.

Our objective draws on the content of recent documents. We highlight key ones here and whilst not repeating the content but ask that reference is made to:

- a) The HSPG response to HAL dated 14th December 2018 entitled 'HSPG Response to HAL's Nov 2018 Preferred Components Masterplan regarding Green & Blue Infrastructure', with its vision statement, Heathrow Area Landscape Framework, comments and ideas.
- b) The CVRP's individual response to HAL also dated 14th December 2018, in response to the preferred components masterplan.
- c) The CVRP's 6 objectives (listed in the appendix below)
- d) Planning policy for the Green Belt - the CVRP CIC helps realise the positive role local authorities are required (by government policy) to perform in Green Belt areas, as set out in paragraph 141 of the National Planning Policy Framework (NPPF).
- e) The target for Biodiversity Net Gain
- f) The Water Framework Directive and suggestions made to HAL by CVRP in Dec. 2018.

We also draw attention to the emerging **Colne and Crane Green Infrastructure Strategy** (under

A1 Colne Valley Park CIC - Supporting Statement

COLNE VALLEY PARK - Community Interest Company



Supporting Statement to the Colne Valley Regional Park's submissions in response to Heathrow Airport Ltd's request for Landscape Opportunities using supplied proforma – March 2019

preparation by Arup on behalf of the Colne Valley Landscape Partnership and Heathrow Strategic Planning Group. This strategy will draw together ideas that are embryonic within the CVRP's project submissions. We anticipate it will be available as a full draft strategy by June 2019, having been inputted to by all relevant authorities, agencies and amenity groups and interested parties.

The CVRP Project Submissions

We make three submissions:

1. **Colne Valley - Ivers to Thames – Integrated Green Infrastructure Design** – to highlight where projects are needed within the Colne Valley area in the vicinity of Heathrow
2. **Colne Valley - Ivers to Thames – Integrated GI Management and Maintenance** – to explain the coordinated approach to management and maintenance necessary within the 'core area'
3. **Colne Valley – Other** – capturing other potential projects outside the 'core area'

These submissions are intended to act as 'umbrellas' for a myriad of individual projects we expect HAL to develop in detail over the coming months (in partnership with CVRP and other stakeholders).

We expect HAL to ensure the areas and subject matter is embraced by HAL's **Development Consent Order** or related binding assurances, to demonstrate its commitment to comprehensive mitigation.

We look forward to considering a number of these locations and ideas in a site visit at the end of March/ first few days of April and in the subsequent workshop meeting.

Appendix

The Colne Valley Regional Park is the first large taste of countryside to the west of London; an area for people and wildlife that has many uses, including farming and angling. Founded in 1965, the Park stretches from Rickmansworth in the north to Staines and the Thames in the south, Uxbridge and Heathrow in the east, and to Slough and Chalfont St Peter in the west.

It is championed by the Colne Valley Park Community Interest Company (CVP CIC) which protects and enhances the Regional Park through six objectives, which are:

1. To maintain and enhance the landscape, historic environment and waterscape of the park in terms of their scenic and conservation value and their overall amenity.
2. To safeguard the countryside of the Park from inappropriate development. Where development is permissible it will encourage the highest possible standards of design.
3. To conserve and enhance biodiversity within the Park through the protection and management of its species, habitats and geological features
4. To provide opportunities for countryside recreation and ensure that facilities are accessible to all
5. To achieve a vibrant and sustainable rural economy, including farming and forestry, underpinning the value of the countryside
6. To encourage community participation including volunteering and environmental education. To promote the health and social well-being benefits that access to high quality green space brings.

A2 Integrated Green Infrastructure Design

The purpose of this document is to seek potential projects and sites for HEP related Green Infrastructure

Name of Opportunity:

Colne Valley - Ivers to Thames – Integrated Green Infrastructure Design

Opportunity Ref: (Do not fill)

Stakeholder who has identified the opportunity:

Name: Stewart Pomeroy

Organisation: Colne Valley Park CIC

Location of Opportunity: *Coordinates or spatial description*

Site: Colne Valley Regional Park

Site description including current status of the site (e.g. arable land, angling lakes, water supply reservoir, public park etc.):

See attached map for extent of the 'site': Essentially the Colne Valley Regional Park from south of the Ivers to the margins of the River Thames and westwards to Wraysbury/ Sunnymeads/ Queen Mother Reservoir/ Brands Hill/ Sutton and eastwards to the (existing and proposed) built up areas of West Drayton, Harmondsworth, Heathrow Airport, Stanwell and Staines.

There are areas of high quality and well managed green infrastructure of various status across this section of the Colne Valley Regional Park including SSSI's, country parks etc. Also Green Belt and other protected land by planning policy.

However, a frequent factor across this area is the degradation of the outdoor environment as a result of:

- Planning blight across the area for many years
- Land speculation
- Planning enforcement problems
- Minerals and other temporary workings, creating a
- Significant barriers to movement created by intrusive and major infrastructure
- Inadequate coverage by and poor design of previous mitigation schemes and
- Poor maintenance of private land and the public realm

These are all factors that we must jointly look to turn around in the newly planned environment around an expanded Heathrow.

Brief Description of Opportunity:

See supporting statement for context and objective of this 'project'.

This project comprises a series of sub-projects to enhance the Colne Valley Regional Park and its functionality in proximity to the proposed Heathrow expansion. These enhancements need to be planned in detail by the HAL team with the view to implementation as part of the DCO/ related binding commitments to deliver a 'whole-landscape' approach.

The attached map (which is not intended to be exhaustive or detailed) shows, in yellow, the suggested focus areas for Integrated GI projects as part of HAL masterplan. These need to be planned alongside the initiatives already tabled in HAL's latest 'preferred components' masterplan.

Those existing 'HAL' initiatives are indicated in blue and green on the plan. However, much of the 'green' areas shown by HAL reflect existing commitments by others to restore land as green infrastructure, through land restoration schemes.

We await confirmation of the exact land restoration schemes already in place (or in hand) by others and the relevant S106 or other legal commitments to their provision.

The scale of the impact on the CVRP (shown on the map) warrants this 'whole-landscape' approach. Without these added projects we consider that the resulting landscape would fail to function properly, would lack the necessary connectivity and the mitigation proposed by HAL would be inadequate in the context of the expansion proposed.

The indicative locations/ focus for **Integrated GI Projects** are shown on the accompanying map and all embrace people and wildlife movement.

- 1A M4 connectivity to create new routes for N-S movement
- 1B Northwards connectivity for walking/ cycling
- 1C M4 - improvement of existing crossing points
- 2 Green Bridge across M25
- 3 Connectivity from Colnbrook village to GI area to south
- 4A Connectivity quality Horton to GI area to north
- 4B Connectivity quality Horton to GI area to south
- 4C Arthur Jacob NR – added links and improvements
- 5 Connectivity Poyle Poplars to Bretts site/ across M25
- 6A Connectivity Bretts site to Stanwell Moor village & airport
- 6B Connectivity Bretts site to existing footpaths & Staines Moor
- 6C Enhancement of walking/ cycling corridor alongside KG VI Reservoir and connectivity quality to Staines/ across A30
- 7A Connectivity link from Cemex restoration site to Wraysbury Station (see inset at end)
- 7B Connectivity improvements across/ around railway

What opportunities would be provided? Please tick or highlight all relevant:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Integration of development proposals with landscape/townscape character <i>e.g. new planting or greening opportunity</i> | <input checked="" type="checkbox"/> Improves visitor perceptions of the area surrounding the airport |
| <input checked="" type="checkbox"/> Conservation and maintenance of valued local landscapes and townscapes <i>e.g. improves settings to heritage assets</i> | <input checked="" type="checkbox"/> Provides environmental gains to microclimate, climate change resilience etc. |
| <input checked="" type="checkbox"/> Enhancement or restoration of local landscape/townscape character | <input checked="" type="checkbox"/> Habitat and biodiversity enhancements |
| <input checked="" type="checkbox"/> Creates positive new landscape character or features | <input checked="" type="checkbox"/> Access and connectivity improvements |
| <input checked="" type="checkbox"/> Benefits the relationship between the airport and its surroundings <i>e.g. creates spaces to enable people to enjoy views of the airport</i> | <input checked="" type="checkbox"/> Community involvement |
| <input checked="" type="checkbox"/> Brings land into cultivation or makes it more useful and productive | <input type="checkbox"/> Other – please provide details in the 'further comments' box |

What is the history of this opportunity: *e.g. is it 'brand new' or, if there is a history, what has prevented the scheme being implemented to date?*

These 'sub-projects' have emerged from analysis of the emerging HEP masterplan, a 'gap' analysis relative to the necessary whole landscape approach, numerous site visits, liaison with the various Local Authorities and meetings with key landowners/ potential project partners *e.g. Thames Water Ltd, Affinity Water Ltd and the Environment Agency*. Finance, timing and interdependency

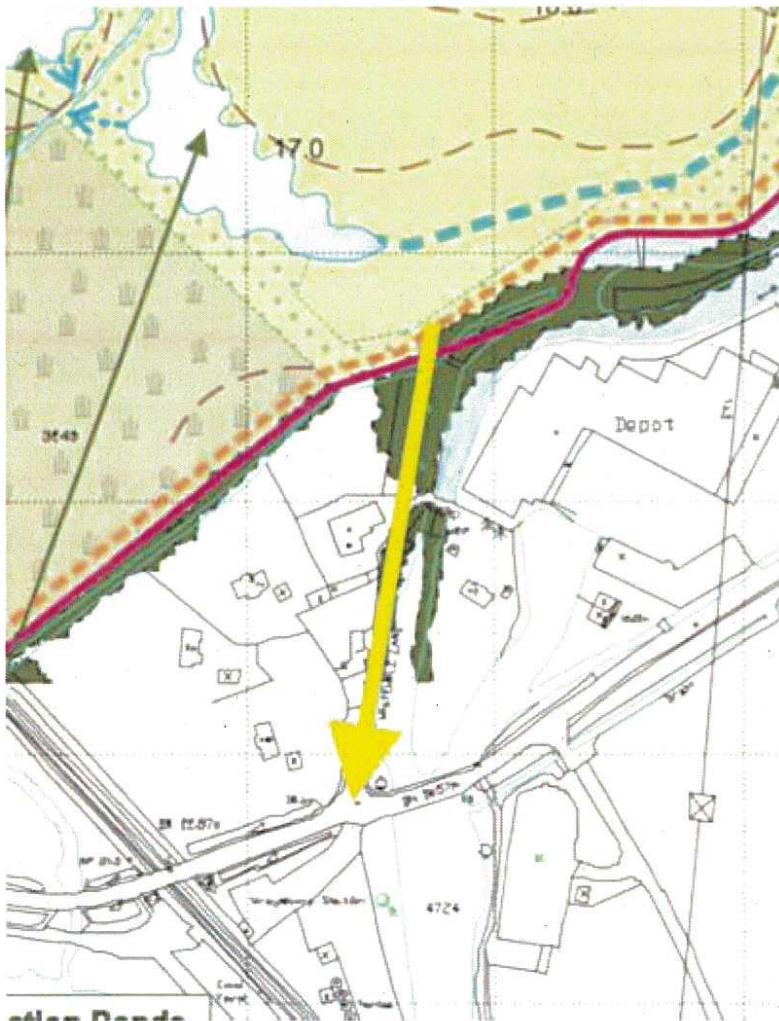
with HAL projects has prevented the schemes being delivered to date.

Are there any other constraints to the delivery of this opportunity *e.g. timing, services or other infrastructure, landowners etc.?*

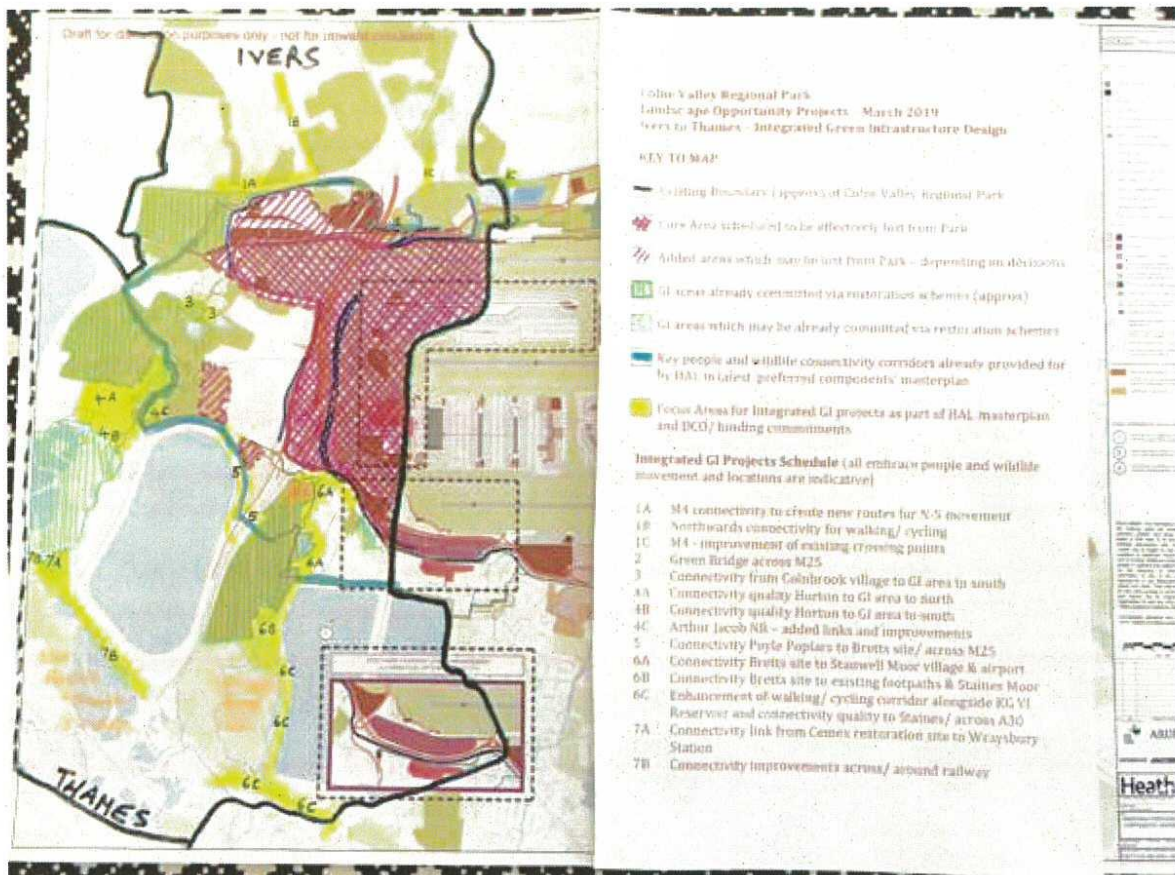
As above.

Further comments

The CVRP has developed a number of ideas related to the above - some more detailed, some embryonic. We look forward to meeting (including on site) to discuss them and work them up as sub-projects. Many will also be highlighted in the forthcoming Colne & Crane GI Strategy.



Indicative Map of sub-project 7A – connection to Wraysbury Station



Index Map showing location of projects and context of other areas. A scanned version is also provided as a separate attachment but for some reason the yellow highlighted 'focus' areas does not show up.

A3 Colne Valley Park CIC - Other Projects

The purpose of this document is to seek potential projects and sites for HEP related Green Infrastructure

Name of Opportunity:

Colne Valley, other

Opportunity Ref: (Do not fill)

Stakeholder who has identified the opportunity:

Name: Stewart Pomeroy

Organisation: Colne Valley Park CIC

Location of Opportunity: *Coordinates or spatial description*

Site: Colne Valley Regional Park

Site description including current status of the site (e.g. arable land, angling lakes, water supply reservoir, public park etc.): Various status across the Colne Valley Regional Park including 13 SSSI's, country parks etc

Brief Description of Opportunity:

See supporting statement for context and objective of this 'project'.

Enhancements in the wider Colne Valley Regional Park to the north and south of the areas of the Regional Park lost to, and immediately adjacent to, proposed Heathrow expansion. These enhancements are to be planned and implemented through a whole-landscape approach focussing on the landscape of the Colne catchment in the Colne Valley Regional Park.

Opportunities for mitigation include:

- WFD enhancement opportunities across the Colne Catchment - as outlined by the Colne Rivers Officer in December 2018 following engagement with the ColneCAN steering group.
- Tackling wetland invasive species through a catchment-based approach.
- Implement specific projects from the forthcoming Colne & Crane Green Infrastructure Strategy (to be completed early Summer 2019) to ensure Heathrow mitigation ensures connectivity into the wider landscape.
- Using the Colne & Crane Green Infrastructure Strategy to ensure Heathrow mitigation complements and ties into mitigation for other infrastructure schemes such as High Speed 2, Western Rail Link to Heathrow and proposed River Thames Scheme.

Opportunities for compensation:

The CVRP considers that the focus of mitigation and compensation should first and foremost be in the 'core area' considered in the other two projects (Integrated GI Design and Integrated GI Management and Maintenance) – so that a 'whole-landscape' approach is delivered.

However, the sheer scale of the land loss to the Park points to the need to consider other compensation opportunities. This should include reviewing opportunities to add new areas to the Colne Valley Regional Park to directly compensate for areas to be lost under the proposed expanded airport and associated infrastructure (areas that will no longer have the ability and potential to fulfil the 6 objectives of the Colne Valley Regional Park). Provision of catalyst funding to enable the Colne Valley Park CIC to develop opportunities to fulfil the objectives within those other areas, and to seek external funding to implement, should be provided for. This project has been the subject of separate discussion with HAL and feedback from HAL is awaited.

What opportunities would be provided? Please tick or highlight all relevant:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Integration of development proposals with landscape/townscape character <i>e.g. new planting or greening opportunity</i> | <input type="checkbox"/> Improves visitor perceptions of the area surrounding the airport |
| <input checked="" type="checkbox"/> Conservation and maintenance of valued local landscapes and townscapes <i>e.g. improves settings to heritage assets</i> | <input checked="" type="checkbox"/> Provides environmental gains to microclimate, climate change resilience etc. |
| <input checked="" type="checkbox"/> Enhancement or restoration of local landscape/townscape character | <input checked="" type="checkbox"/> Habitat and biodiversity enhancements |
| <input checked="" type="checkbox"/> Creates positive new landscape character or features | <input checked="" type="checkbox"/> Access and connectivity improvements |
| <input type="checkbox"/> Benefits the relationship between the airport and its surroundings <i>e.g. creates spaces to enable people to enjoy views of the airport</i> | <input checked="" type="checkbox"/> Community involvement |
| <input checked="" type="checkbox"/> Brings land into cultivation or makes it more useful and productive | <input type="checkbox"/> Other – please provide details in the ‘further comments’ box |

What is the history of this opportunity: *e.g. is it ‘brand new’ or, if there is a history, what has prevented the scheme being implemented to date?*

Based on long standing partnerships through the Colne Valley Regional Park and Colne Catchment Action Network (ColneCAN)

Are there any other constraints to the delivery of this opportunity *e.g. timing, services or other infrastructure, landowners etc.?*

Landowner agreement and EA permission needed. Existing Partnerships can help progress this.

Further comments

A4 Ivers to Thames GI Management and Maintenance

The purpose of this document is to seek potential projects and sites for HEP related Green Infrastructure

Name of Opportunity:

Ivers to Thames – Integrated GI Management and Maintenance

Opportunity Ref: (Do not fill)

Stakeholder who has identified the opportunity:

Name: Stewart Pomeroy

Organisation: Colne Valley Regional Park CIC

Location of Opportunity: *Coordinates or spatial description*

Site:

Heathrow GI Zone – Ivers to the Thames

Area covered is shown on the map accompanying the CVRP's 'Ivers to Thames – Integrated GI Design' project proforma.

Site description including current status of the site (e.g. arable land, angling lakes, water supply reservoir, public park etc.):

Land assets provided as (multi-functional green infrastructure mitigation for the expansion of Heathrow airport.

Brief Description of Opportunity:

See supporting statement for context and objective of this 'project'.

78 million passengers used Heathrow airport in 2018. Capacity will rise to 130 million a year. Many millions more travel around the airport zone and more again live or work close to the airport. Whether or not people use the airport itself, all who visit the zone experience the impacts the airport has on the environment around it.

This project would establish management and maintenance arrangements for new green infrastructure (GI) assets and work to improve the landscape quality of the public realm around the Heathrow expansion zone. The project will identify and provide resources to deliver/procure maintenance services and facilitate interagency and community engagement activities.

Project objectives:

- To deliver mitigation of the Heathrow expansion long term through the management and maintenance of appropriate GI assets
- To improve the standard of landscape/public realm throughout the Heathrow area
- To create employment and learning opportunities for local people
- To continue to engage with local communities and involve them in the management and maintenance of sites.
- To improve the quality of local environments for those who are affected by the airport and its associated infrastructure.
- To help to ensure that Heathrow and the area around it is seen to be as good if not better than other world class airports.

HAL will have to create new green infrastructure assets to replace GI assets lost to expansion and invest substantially in the enhancement of others if it is to meet the requirements set out in the National Airports Policy Statement. These new assets will be needed to satisfy the short term design impacts of the expansion and to deliver long term (permanent) mitigation in respect of biodiversity, landscape quality, public access etc. (GI). The other CVRP project 'Ivers to Thames – Integrated GI Design' concerns this.

After assets have been created they will each need to be managed and maintained to ensure they deliver the mitigation they were designed to provide.

It is evident around Heathrow Airport today that standards of management/maintenance of the public realm (and various areas of private land, many adjacent to rights of way etc.) do not deliver spaces of a quality consistent with the area's standing as an international gateway to the UK. The poor condition of areas is often a barrier to use and discourages visits in the Park for recreation. Together with poor quality of connectivity it diminishes the degree to which the Park can meet its environmental/ community potential and severely reduces the quality of the local landscape.

The collaborative approach being taken to the expansion project by HAL and the HSPG creates an opportunity for a more structured approach to be established for the management and maintenance of new green infrastructure and public realm within the expansion zone and potentially to address some of the dilapidations evident within the existing public realm.

After expansion, management and maintenance will be needed:

- To implement the correct management and maintenance of new GI assets to achieve mitigation.
- To maintain the wider (off airport) landscape and public realm associated with sites and infrastructure created as part of expansion. We promote this for the southern ('Ivers to Thames') part of the CVRP but it could be a principle also applied on a wider basis.

The landscape and public realm outside Heathrow's own managed estate is disparately owned. It and falls within five different local authority areas. There is no single focus of management or maintenance. This is evident in the variable standards of maintenance visible throughout the area. The Colne Valley Regional Park CIC is well placed to offer a more cohesive and consistent service. It would do this by:

- Employing staff to oversee management and maintenance
- Delivering 'additionality' to the routine services delivered by local authorities and other agencies.
- Offering direct employment opportunities incorporating an apprenticeship scheme
- Providing a response service to Heathrow and the public at large to attend to maintenance/management issues as they arise. Interfacing with local authorities/agencies to establish and maintain the best standards possible for the Heathrow zone.

Working within the spirit of Heathrow's own aspirations for a better Heathrow, the project would create opportunities to deliver benefits to contribute towards Heathrow's 'Responsible Heathrow 2020' objectives.

Benefits of a Management and Maintenance Service approach:

- There will be greater confidence that mitigation measures can be delivered for the long term
- Planning obligations will be met and sustained
- GI assets will be safeguarded from avoidable loss or neglect
- The quality of the local environment will be better for residents, visitors and employees with a consistent approach across a 'whole-landscape' scale.
- Heathrow's reputation will be enhanced.
- Good quality environments are good for the local economy
- The community will be able to be involved in the management and maintenance of their local GI assets
- Employment and apprenticeship opportunities will be created in the maintenance of GI.
- There will be potential to achieve higher standards of maintenance of public realm through cross boundary engagement with local authorities and other agencies.
- The service would host an apprenticeship trainee scheme for people to develop skills in the maintenance of public spaces/landscapes

- There can be economies of scale as each GI area would otherwise need its own management and maintenance
- Potentially assisting local authorities to deliver services more cost effectively

The project would achieve these benefits by:

- Providing cohesive and consistent management and maintenance of GI assets across administrative and ownership boundaries.
- Ensuring that maintenance regimes deliver their mitigation objectives/targets.
- Safeguarding the long term protection of GI assets (dependant on tenure arrangements)
- Delivering apprenticeship opportunities as part of maintenance programmes.
- Supporting local authorities/agencies and local communities to improve standards of maintenance/cleanliness throughout the Heathrow expansion zone through a cross boundary maintenance standards protocol.
- Ensuring that Heathrow's reputation is enhanced and promoted by achieving a better quality of environment in the vicinity of the airport within the expansion zone.
- Providing a priority resource able to respond quickly and effectively to management and maintenance issues that arise within the zone.
- Working with and as part of local communities to maximise the community benefits delivered by the GI, including with Heathrow's Better Neighbourhoods and other community engagement initiatives.
- Providing an agency to continue the collaborative approach to management and maintenance to create a more integrated and resilient green infrastructure legacy.

What opportunities would be provided? Please tick or highlight all relevant:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Integration of development proposals with landscape/townscape character <i>e.g. new planting or greening opportunity</i> | <input checked="" type="checkbox"/> Improves visitor perceptions of the area surrounding the airport |
| <input checked="" type="checkbox"/> Conservation and maintenance of valued local landscapes and townscapes <i>e.g. improves settings to heritage assets</i> | <input checked="" type="checkbox"/> Provides environmental gains to microclimate, climate change resilience etc. |
| <input checked="" type="checkbox"/> Enhancement or restoration of local landscape/townscape character | <input checked="" type="checkbox"/> Habitat and biodiversity enhancements |
| <input checked="" type="checkbox"/> Creates positive new landscape character or features | <input checked="" type="checkbox"/> Access and connectivity improvements |
| <input checked="" type="checkbox"/> Benefits the relationship between the airport and its surroundings <i>e.g. creates spaces to enable people to enjoy views of the airport</i> | <input checked="" type="checkbox"/> Community involvement |
| <input checked="" type="checkbox"/> Brings land into cultivation or makes it more useful and productive | <input checked="" type="checkbox"/> Other – please provide details in the 'further comments' box |

What is the history of this opportunity: *e.g. is it 'brand new' or, if there is a history, what has prevented the scheme being implemented to date?*

It is a new proposal that would be designed to respond to a recognised need for newly created or enhanced assets to be managed and maintained. It would provide a mechanism for Heathrow to secure its commitments to GI mitigation but also maximise the contribution the assets would make to Heathrow's 2020 vision.

This is necessary to protect the investments and for mitigation to be effective for the long term.

Without appropriately informed management and maintenance there is a high risk that mitigation will not be achieved or would be fragmented and that the benefits of investment will not be realised.

Are there any other constraints to the delivery of this opportunity *e.g. timing, services or other infrastructure, landowners etc.?*

Land ownership arrangements/willingness of third party owners to participate

Funding

Financial commitment to maintenance obligations by relevant third party bodies (though also presenting opportunities for cost-effective maintenance of the wider landscape e.g. for local authorities).

Ability to secure an operational base within or close to the Colne Valley Regional Park

Ability/capacity of existing organisations to undertake the role.

Further comments

Delivering long term management and maintenance would create new opportunities for Heathrow to achieve its aspirations for local communities, the local environment, employees and the local economy. Consistent high quality maintenance of green spaces and public realm will derive additional environmental, social and economic benefits from the project.

Joined up management and maintenance on a landscape scale would maximise potential for ongoing enhancement of sites to improve access and biodiversity networks.

Joined up management & maintenance on a landscape scale would provide communities on the edge of 5 local authorities with a simpler, more direct and responsive route to resolving maintenance incidents.

We envisage that the project would be tied to Heathrow and landowners/partners through a formal performance/delivery arrangement.