

HSPG Position Paper: Environmental Principles

Second Draft for Discussion

October 2018

This paper has been drafted in response to a request from HSPG to develop a position paper on the environmental effects of an expanded Heathrow. This first draft represents a starting point for discussion with HAL, HSPG Core Group and Members.

Scope

Introduction

The airport together with its supporting uses and infrastructure has a significant impact across the sub region, spatially, socially, economically and environmentally, that cuts across administrative boundaries. Development at the airport, whether as a two runway or three runway option will have an impact on its immediate and wider surroundings.

The Heathrow Strategic Planning Group has been formed to enable collaborative working towards better spatial planning, the management of impacts, and maximisation of benefits resulting from the development of the airport. Each member of the Group will have their own individual policy positions on a third runway, and membership of the Group does not require any particular position of support or opposition.

As part of this collaborative process, the Group has formulated this Position Statement setting out the HSPG position in relation to the environmental effects of Heathrow expansion. It sets out the outcomes that the members of the HSPG agree should be secured in respect of the planned expansion of Heathrow and which will steer the work that is undertaken through HSPG.

The Group has established an Environmental sub-group to focus on the environmental effects of the scheme in relation to addressing impacts, mitigation and improvements. A Green and Blue infrastructure working group has also been formed and has formulated a Landscape framework for the airport including a focus on greenspaces, river corridors and integration of the airport infrastructure into the wider environment.

Environment is also one of the four main themes of the HSPG Vision and Development Principles¹ which are Placemaking, Environment, Transport/Infrastructure and Socio/Economic. These are aligned to the National Planning Policy Framework and Airports National Policy Planning Statement requirements to achieve sustainable development and secure net gains in relation to economic, social and environmental objectives. HSPG's overall Vision is to achieve integrated sustainable development capitalising on the airport development as a springboard. A HSPG Environment sub-group has been set up to develop HSPG's response to the environmental implications of the emerging Heathrow Airport expansion². HSPG's Environmental objectives are:

- **To be leaders in environmental management and Best Practice** - with a commitment to lead the way in strategies and measures to minimise environmental harm and maximise environmental benefits for the long term
- **Achieve integrated sustainable development** - We want to capitalise on the airport development as a springboard to achieve new levels of sustainable development across the sub-region. From big ideas to clear strategies, upheld by a commitment to embed sustainability across all levels of decision making. We aim for an integrated approach to sustainable development as the 'golden thread' to connect across all themes. This will help to develop comprehensive solutions such as the reduction of car use through high quality urban densification around key hubs connected by an improved transport infrastructure.
- **Well-designed sub-regional green infrastructure strategy** - We want to develop a wider strategy for green corridors, planting and surface water management, to ensure an integrated approach to landscape and habitat management. This will also help to improve public access to open and natural spaces in the subregion.

¹ Vision and Development Principles for the Heathrow sub-region, Heathrow Strategic Planning Group (HSPG), June 2016

² Heathrow Strategic Planning group (HSPG) Accord, October 2017

- **Achieve the biggest step change improvements in key measurable targets** - We aim to take on a holistic view on issues such as air quality emissions. We intend to develop appropriate measures to target the right source and thus achieve measurable improvements in air quality. We want to address the right organisations to influence local enforcement. This will help us achieve noticeable results such as reduction in overall car use, provision of electric points and improved cycle infrastructure.
- **Setting high expectations for airport operations** - As a group, we intend to develop an integrated strategy to influence decisions on issues such as night flights and noise. Through this, we hope to achieve a principle of respite and runway alternation to improve the wider environment and the amenity for neighbouring residents and businesses and other more sensitive occupiers such as schools.

‘Without prejudice’

These comments are all made within the terms of the HSPG / HAL collaborative working and Service Level Agreement, respecting commercial confidentiality and limiting opportunity for detailed analysis and discussion within the HSPG organisations or more widely. The comments are made on a strictly ‘without prejudice basis’ to any position the HSPG and individual member organisations may take in future, and the organisations reserve the right to withdraw or change any comment made here without prejudice to their position.

Scope of the Environmental Position Paper

The Paper sets out HSPG’s position in relation to environmental principles for the scheme, broken down by environment topic area. The Paper will also inform HSPG’s position during the DCO process. This draws together the information gathered from an array of written communications and meetings which have taken place over 2018, including members responses to Consultation 1, meetings with individual Members, masterplanning workshops, environmental sub-group meetings, green and blue infrastructure sub-group meetings and member’s responses to the EIA Scoping Report. A programme for delivery of each element would be agreed with HAL at later stages of scheme development.

The Paper focuses on the environmental principles of airport design, in its widest sense, and operational issues. The Paper does not cover detailed comments on the EIA assessment process (which have previously been dealt with in the HSPG response to EIA Scoping Report). In addition, transport, public health and Low Emissions Zone issues are set out in the own separate Position Papers and not covered in detail in this position paper. Airspace issues are being resolved separately to the ongoing EIA process through Heathrow’s three stage consultation process and are therefore not covered in detail in this position paper.

Air Quality

Introduction

The following section sets out HSPG's position in relation to management of air quality for Heathrow expansion. These will be subject to change once further detail on the Surface Access Strategy and airspace proposals are available. A separate Low Emission Zone Position Statement has been produced by HSPG; with a high-level provided in this section.

Air Quality Strategy

AQ1: An air quality strategy should be developed and implemented to enable National Air Quality Objectives to be achieved as quickly as possible. It should cover both construction and operational stages. A commitment should be adopted for continuous reduction in levels of nitrogen oxides, particulates and carbon monoxide to improve air quality in target areas.

Low Emission Zone

AQ2: An enforcement and binding intervention regime e.g. Clean Air Zone and /or Ultra Low Emission Zone should be adopted. The design should deliver reduction in public exposure to harmful roadside pollutants.

AQ3: Evidence should be provided that the LEZ will not displace air quality effects out from the airport and into surrounding communities.

AQ4: The Heathrow Low Emission Zone should adopt a common approach with the Mayor of London's LEZ and surrounding local authorities LEZs in Berkshire, Buckinghamshire and Surrey.

AQ5: Heathrow should not cause an exceedance of Air Quality Management Area (AQMA) pollutant limit levels.

Low Emission Transport

AQ6: Evidence should be provided for investment in low emission transport to and within the airport during both construction and operational stages, to include a low emission bus fleet and taxis. For example, this could include provision of ULEV taxi ranks and supporting EV charging infrastructure at the airport, rail links, supporting complete electric journeys from home to Heathrow, and low emission airport operations vehicles.

AQ7: A ringfence of funds from car parking revenues and vehicle charging should be adopted to support low emission measures and sustainable transport projects in the local area with the aim of phasing from car travel to more sustainable modes.

Air Quality Modelling and Monitoring

AQ8: HSPG consider that the air quality data the airport currently utilises relies too much on modelled emissions using Defra background maps rather than actual emissions. There is considerable disparity

between the two data sets. Continuous air quality monitoring stations should be funded and deployed at key locations to establish an accurate baseline.

AQ9: Monitoring stations should be installed at locations which are near to air quality hotspots and the most sensitive air quality receptors in the local area, with the locations and monitoring regime agreed with HSPG. This would provide evidence of whether airport expansion is displacing air quality effects to the wider community areas.

AQ10: The baseline air quality modelling should incorporate real world Emissions Factor Toolkits and allow for a quantified level of uncertainty within the modelling process.

AQ11: Currently air quality modelling includes only public highways. Air quality modelling should include vehicle emissions from all landside roads at the airport, including perimeter roads and access roads into the central terminal area.

AQ12: The contribution of aircraft stands and operational changes to the existing runways and taxiways should be included in the air quality modelling for the proposed expansion.

AQ13: The contribution of on-site generation of heat and electricity to power the airport should be included in the air quality modelling. These emissions account for around 4% of current airport NOx emissions.

Construction Air Quality Effects

AQ14: The air quality effects of construction traffic should be included in the air quality modelling.

AQ15: All construction vehicle fleets should comply with Euro VI (or better) emissions standards and evidence provided that haul routes have been planned to minimise offsite impacts.

AQ16: Evidence should be provided on the cumulative air quality and dust effects of the many projects being planned and constructed concurrently in the local area, and the mitigation measures adopted to reduce cumulative effects to a non-significant level. This should include airport enabling schemes outside the DCO envelope, other regional DCO projects and ongoing ARD projects in the area. The cumulative effects should be considered over an extended period to at least 2040.

AQ17: HSPG should be consulted on the construction environmental management planning to ensure measures are appropriate and acceptable.

Noise and Vibration

Introduction

The following section sets out HSPG's position in relation to management of noise for Heathrow expansion. These will be subject to change once further detail on flight path and airspace proposals are available.

Operational Noise

NO1: In accordance with the airports NPS, the noise management mitigation package should drive improvement adopting the mitigation hierarchy of firstly reducing the noise generated at source; optimising the distance between the source and noise-sensitive receptors; restricting activities as appropriate between different times of day; and finally mitigating the impact at receptors including through noise insulation.

NO2: A compulsory night flight ban should be adopted for a minimum period 11.30pm – 6.00am as recommended by the Airports Commission.

NO3: The design of airspace should reduce the number of people experiencing significant adverse effects, using 54dB_LA_{eq} threshold as onset of significant annoyance and 51dB_LA_{eq} threshold for assessment in accordance with Government recommendations.

NO4: The design of airspace should include provision of reliable, predictable periods of respite and relief including full runway 'alternation'.

NO5: The Independent Commission on Civil Aviation Noise (ICCAN) should oversee and advise on mechanisms and penalties to ensure noise targets are met; to operate with full independence from the CAA and HAL.

NO6: The contribution of aircraft stands, operational changes to the existing runways and taxiways, and engine testing facilities should be included in the noise modelling.

NO7: Evidence should be provided of the effects of operational noise on the tranquillity and enjoyment of recreational areas, urban public space and the countryside affected by airport operations. Measures should be taken to minimise adverse impacts as part of a balanced airspace approach. Details on appropriate mitigation should be provided, as standard approaches, for example noise insulation, will not be applicable.

NO8: Indicative flight paths should include consideration of Performance Based Navigation (PBN) flight paths. Sensitivity testing of PBN based flightpaths with a smaller degree of noise dispersion, versus wider dispersed flight paths potentially distributing noise more equally, should be undertaken adopting worst-case criteria. Flight paths should also offer predictable periods of respite for communities. This range of indicative airspace designs should then be subject to ongoing review and revision.

Compensation and Mitigation Package

NO9: A community compensation package, including noise insulation for residential, recreational and other sensitive receptors, should be provided including regular progress reporting. The mitigation and compensation package should be World Class and proportionate to the impact of the expanded airport; eligibility should apply equally to existing and new premises. Details should be provided on how noise insulation will be made to appeal better and improve uptake amongst eligible property owners when compared to the current scheme.

NO10: All homes in the local area that are eligible for noise insulation should be provided for under the Quieter Homes Scheme and reach tenanted property as well as home owners. The mitigation package should provide for increases in noise levels for receptors as well as absolute noise levels.

NO11: HSPG has concerns regarding the increased costs of operational noise to meet the required noise standards for new buildings, including housing and schools. It is estimated that the build cost for compliant facilities would be increased by around 20%, which reduces the ability to meet statutory obligations. The difference in cost should be borne by HAL through an agreed mechanism.

NO12: Verification that noise insulation is still working as intended in relevant properties should be included in future operational monitoring

NO13: The current fixing of the noise insulation compensation boundary is considered to be premature and it should be reviewed and revised once flight paths are determined.

NO14: The design and layout of buildings, structure, and mitigation bunds should minimise noise impacts of ground sources and final approach paths

Noise Respite

NO15: Predictable periods of noise respite should be provided for our local communities The ANPS states *'the applicant should put forward plans for a runway alternation scheme that provides communities affected with predictable periods of respite'* and we would therefore expect periods to remain the same or improved.

Noise monitoring

NO16: Noise monitoring locations should be deployed at key locations to establish an accurate baseline and ensure HAL, regulators and residents and businesses understand current noise levels and how potential changes may impact on health, particularly night time noise, and the use and enjoyment of public space. These locations include schools and parks where outdoor access is central to their use.

Construction Noise Effects

NO17: In accordance with WHO night-time noise guidelines, the L_{Amax} parameter should be adopted for night-time construction works to protect residents against sleep disturbance and determine sound insulation or temporary re-housing requirements

NO18: The Construction Environmental Management Plan should be developed and consulted on with HSPG to ensure all practicable local measures to minimise environmental effects are identified. Measures should include robust night time working protocols with night-time work avoiding sensitive receptors and the noisiest activities.

LOAEL, SOAEL and UAEL

NO19: Appropriate values for Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) should be consulted on and agreed with HSPG as soon as possible.

NO20: Aircraft noise and aircraft ground noise should be assigned separate values for LOAEL and SOAEL as the character of noise (a series of high level, transient noise events versus steady state noise) is different. This is in accordance with the approach used to assess noise at other UK airports.

NO21: Details should be provided on specific actions that should be taken to prevent an Unacceptable Adverse Effect Level (UAEL) from occurring, separate from the general noise control measures proposed for normal operation.

Carbon and Climate Change

Introduction

The following section sets out HSPG's position in relation to carbon management and climate change for Heathrow expansion. These will be subject to change once further detail on the Surface Access Strategy and airspace proposals are available.

Construction Effects

CC1: Site plant, vehicles and construction sites should be operated in accordance with relevant sustainability, emission and environmental health standards, and be carbon neutral.

Operational Effects

CC2: Aircraft emissions account for approximately 95% of all current Heathrow related carbon emissions (site operations and travel to/from the airport account for 5%). Evidence should be provided on the steps HAL will take to achieve their carbon reduction targets with dates, including adoption of fuel-efficient aircraft and sustainable biofuel. It should include monitoring and contingency planning.

CC3: Higher landing fees for higher emission aircraft should be implemented, with revenue directed towards carbon reduction initiatives.

CC4: Interim carbon reduction targets should be adopted to reduce risks associated with setting long-term targets alone

CC5: Airport supporting facilities, surface access to the airport, ARD, and the wider supply chain should be included in all considerations of greenhouse gas emissions and climate change.

Greenspace

CC6: The EIA should address the effects of loss of green space areas on carbon and climate change related to its role in carbon storage, temperature regulation and flooding, with appropriate mitigation measures identified.

Scheme Design

CC7: Evidence should be provided on the specific design and embedded mitigation measures to be adopted to address climate change. This could include the choice of materials, resource management, how the design of the scheme minimises emissions during the operational phase, provision of a network of routes for sustainable travel, and construction approaches. This should be set out in the Sustainability 2.0 strategy ahead of DCO approval

Climate change resilience

CC8: Measures to reduce the impacts of climate change on the immediate local area and improve local resilience should be considered as part of the package of mitigation measures.

CC9: Evidence should be provided that flood storage requirements have taken into account potential meteorological changes associated with climate change. Climate change rainfall uplifts and river flows should be included.

Community

Introduction

The following section sets out HSPG's position in relation to the effects on community from Heathrow expansion, including aspects related to sustainable transport including cycling and walking. A separate Transport Position Statement has been produced by HSPG which provide further details on sustainable transport measures.

Housing and Employment

CM1: Housing for construction workers should utilise existing empty and vacated homes where possible and located to minimise travel by car. Where new housing is required this should be sited in the most environmentally advantageous locations with suitable accessibility to construction areas.

CM2: The implications for the local and wider housing market and social infrastructure of new jobs associated with the airport, including travel to work implications, should be researched using a study specification agreed with HSPG. It should include the impacts on housing and employment land need, and all sectors of housing including market, private rented sector and affordable housing, over all the phases of growth.

Community Facilities, Recreation and Amenity

CM3: Secondary community mitigation measures should include improvement of nearby green areas for biodiversity and recreation funded through a 'quality of life' fund. Mitigation should deliver the equivalent or better provision than any displaced activities.

CM4: The design should deliver a positive, outward facing design toward local communities, provide suitable accessibility to the public via attractive routes/corridors for sustainable transport and provide the necessary landscape setting, screening and buffer zones.

CM5: The design should address, and not increase, severance and isolation of local communities, including severance of green infrastructure and access to local businesses.

Community Compensation and Mitigation

CM6: A community mitigation fund should be implemented, providing a significant increase on the 2018/19 budget for the Heathrow Community Fund during the construction phase of the project. This should include priority for community and environmental projects in areas directly affected by construction activities and include the Heathrow Community Engagement Board.

CM7: Evidence should be provided that scheme construction and operational planning will phase development to minimise disruption to communities and ensure adequate facility provision prior to displacement.

Sustainable Transport

CM8: A spatial strategy should be developed to deliver the measures required to maximise sustainable travel routes to the airport, including walking and cycling links separated from roads and integrated into a wider green infrastructure network.

CM9: The design should include measures to enhance the local rights of way network including regional and nationally promoted routes and local routes.

CM10: Transformative 'sustainable transport modes' (public transport with buses / rapid transit vehicles, cycling and walking) should be fully incorporated in the design to improve access for airport workers to move around the airport and access the surrounding communities.

CM11: The proposed Southern Road Tunnel should be included in the design and be suitable for use of all sustainable transport modes.

Historic Environment

Introduction

The following section sets out HSPG's position in relation to the effects on heritage from Heathrow expansion including direct effects and effects on the setting and context of local heritage.

Heritage Assets

HE1: Designated and non-designated heritage assets and the wider historic environment should be conserved and opportunities taken to investigate, better understand, enhance and celebrate local assets.

HE2: Archaeological investigations should include building recording with a commitment to develop and implement a research framework from the early stages of the project through to completion. Archaeological findings should be shared with local communities prior to archiving.

HE3: The design should take into consideration the effect of land use changes, traffic congestion or pollution events on the function of heritage assets, for example the closure of historic pubs.

HE4: An enhancement package should be provided for Conservation Areas building on the heritage mitigation scheme to achieve wider objectives to achieve a comprehensive package of traffic management, environmental and social economic compensatory and mitigation actions.

HE5: Evidence should be provided on mitigation measures adopted to address any increased visitor pressure on heritage assets due to increased accessibility to these sites due to airport expansion.

Setting of Heritage Assets

HE6: Evidence should be provided on the mitigation adopted to address changes to the setting of all heritage assets within the proposed ZTV. The current focus of the scheme development in relation to heritage setting is very narrow and should be extended to consider long term operations effects and effects beyond noise and vibration effects. The visual effect of overflying aircraft should also be considered.

HE7: The design should robustly protect and enhance heritage setting where large scale new development is immediately adjacent to village cores. For example, the setting of surviving areas of Harmondsworth and Colnbrook village cores could be significantly affected by airport and associated development, diverted roads and displaced facilities. Community development projects should be implemented to maintain and build community and 'village life' both during and post construction to ensure that the villages retain their sense of 'home' and 'community' rather than just simply places where people live on a temporary basis.

Design

HE8: The design of structures and layout should respond to and reference historic environment significance, rather than being standardised, particularly for airport related development and supporting facilities. The design should better reveal the significance of heritage assets and respond positively to historic character.

HE9: HSPG expects to see responsive nonstandard and detailed design around historic village cores and in areas where historic character survives, to enhance it and the sense of place and historic environment interpretation including public art, building and public realm design, as well as being through more conventional interpretative display and outreach programmes

HE10: Evidence should be provided of consideration of the recreation of historic landscape features as mitigation. New non-designated local assets should also be identified and enhanced. For example, the creation of new Orange Pippin orchards in Colnbrook and Harmondsworth could enhance the setting and interpretation of heritage assets, and features with links to aviation history could be identified and enhanced.

Land Quality

Introduction

The following section sets out HSPG's position in relation to the effects on land quality from Heathrow expansion.

LQ1: Details should be provided on the proposed mechanism for Ground Investigations to be delivered if these do not form part of the DCO application.

LQ2: The airport expansion mitigation package should include measures to remediate local contaminated sites, including multiple dilute and disperse landfills.

LQ3: Further details should be provided on the impact of expansion on agriculture and the rural economy, including the mitigation and compensation proposed for agricultural tenants and farm businesses outside the Compulsory Purchase Zone.

LQ4: A strategy for sustainable after-use of land should be provided, including information on who will have responsibility for managing and maintaining land in future and how management will be funded (for example through endowment and revenue generating opportunities and a legacy strategy).

Resources and Waste

Introduction

The following section sets out HSPG's position in relation to the effects on resources and waste from Heathrow expansion.

Sustainable Resource Management

RW1: The expansion should adopt sustainable design and construction principles to minimise consumption of non-renewable resources, maximise use of sustainably sourced aggregates and minimise construction and demolition waste sent to landfill.

RW2: A strategy should be developed detailing how and where waste will be disposed and the sources of materials. The strategy should be based on the waste management hierarchy, with waste moved up the hierarchy wherever possible.

RW3: All construction bulk materials and waste should be imported and exported by rail and use of rail maximised for all other components and materials. This should apply to all supporting planning applications and ARD associated with airport expansion. Measures to achieve a net balance of landfill/demolition waste with excavated materials should be adopted.

Waste capacity

RW4: Waste capacity in the south-east is limited and any net increase in non-inert landfill and a reduction in void space would result in a major burden on local authorities. Evidence should therefore be provided of that waste management measures have been pushed up the hierarchy and that options for the scheme, including all associated development, to manage its own waste before considering offsite disposal has been fully investigated.

RW5: Lakeside Energy for Waste Plant will be lost as part of the airport expansion. This facility is a strategic element of modern waste management infrastructure. Its loss would have knock on implications for waste management capacity in the wider area and evidence should therefore be provided that there will be adequate capacity and continuity in waste management provision.

Water

Introduction

The following section sets out HSPG's position in relation to the effects on the water environment from Heathrow expansion, including in relation to flood risk, surface water and groundwater.

Flood Risk

WR1: Many of the areas around the airport are in flood risk zones and have experienced major flood events. Evidence should be provided that the expansion will reduce flood risk rather than maintain current levels of flood risk.

WR2: Flood plain compensation should be provided for any lost flood storage and locations identified. Floodplain compensation areas should be located away from any areas of development allocated in local plans and contaminated land/former landfill. The level at which mitigation is required (from modelling flood risk) should be discussed and agreed with the Environment Agency, LLFA and HSPG.

WR3: A plan in relation to ownership and maintenance responsibilities of the floodplain compensation areas should be provided.

WR4: An emergency flood plan, including access and operating arrangements in extreme flood events should be included in the Flood Risk Assessment

WR5: Sewer flooding should be considered in relation to flood risk planning and management.

WR6: Flood risk compensation and mitigation should be multifunctional, provide and link strategic habitats and aligned and integrated with biodiversity and green infrastructure plans.

WR7: Flood storage requirements must encompass potential increases in rainfall associated with climate change and include sustainable drainage systems.

WR8: The Flood Risk Assessment should incorporate consideration of the health risks associated with fear of flooding, since the flood events in 2014 public perception about flooding risks may not match those concluded within a flood risk assessment.

WR9: In addition to the upstream compensation areas, evidence of sustainable flood attenuation measures to manage and improve the risk of surface water flooding directly at the airport and downstream should be provided.

Groundwater

WR10: Evidence should be provided on measures to be adopted to ensure the quality of ground water is protected, including consideration of the displacement of groundwater and the effect of flood compensation areas on groundwater flood risk.

Water Resources

WR11: Evidence should be provided on measures adopted to ensure sustainable use of water resources including onsite reuse of grey water, water demand reduction, effects on local supply and discharge back to surface waters.

WR12: Details should be provided on measures to be adopted to ensure the quality of surface waters is protected including groundwater monitoring, and the quality effects of changes in flow rates and levels in local rivers.

River Corridors

WR13: Wherever possible, watercourses should be retained as open channels. Compelling evidence should be provided on the need for any covered river corridors or culverts. Rivers should attain a good ecological status in accordance with the Water Framework Directive and existing status should not be reduced.

WR14: The rivers upstream and downstream of any modified river corridors should remain as natural as possible.

WR15: River buffer zones should be included in the design that are, as a minimum, in line with Environment Agency guidance. Existing river buffer zones should be safeguarded.

WR16: HSPG should be consulted in relation to local knowledge of the river systems including developing appropriate and effective mitigation.

WR17: A plan setting out ownership and maintenance requirements and responsibilities of diverted and modified rivers, should be provided.

WR18: Details should be provided on how ordinary watercourses (streams, drainage ditches and ponds) outside the main river system will be diverted or altered, the impacts on the hydrological system and mitigation measures.

Drainage

WR19: Information on locations where drainage will be discharged should be provided. Evidence should be provided on how wastewater will be managed given limited local capacity.

WR20: Evidence should be provided on how SUDs and Natural Flood Management will be prioritised according to the SUDs hierarchy and incorporated into drainage systems.

Biodiversity

Introduction

The following section sets out HSPG's position in relation to the effects on biodiversity from Heathrow expansion, including in relation to ecological sites, biodiversity offsetting, compensation areas and design.

Ecological Sites

BD1: Ecological sites, including formal designations and local areas of importance, should be protected and enhanced with evidence provided on arrangements for ongoing monitoring, maintenance and management, including long term funding. Where loss or harm is unavoidable, biodiversity off-setting should be implemented.

BD2: The mitigation hierarchy should be adopted for impacts on biodiversity. Avoidance of impacts should be prioritised above mitigation or compensation measures, and onsite mitigation and compensation should be considered before offsite mitigation and compensation.

BD3: Biodiversity impacts of the scheme should be considered in a wider context as ecology impacts can occur a long distance from the source of impact, especially for river catchments and protected sites. Evidence should be provided on reasons for selection of study areas.

BD4: Evidence should be provided on how biodiversity offsetting and compensation will deliver improvements in ecological status for sites which need to be improved in accordance with the Habitats Directive.

Biodiversity Offsetting, Compensation and Net Gain

BD5: The proposals should deliver a net gain for biodiversity applying the principles in the Defra 25-year plan. Details on the metric to be used should be provided.

BD6: Biodiversity offsetting calculations should consider locally important habitats. All green space sites important for maintaining biodiversity should also be included in offsetting calculations including gardens, allotments, parkland, wastelands and other unlisted sites.

BD7: Biodiversity offsetting and compensation areas should be located as close as possible to the areas and receptors affected, improve habitat connectivity and pooled to achieve greater biodiversity benefits.

BD8: Biodiversity offsetting is difficult to apply for water habitats, due to the difficulty in measuring various important features including potential downstream impacts. Information should be provided on the mechanism proposed for calculating and offsetting water habitats.

BD9: Compensatory habitats are not always suitable for all species. Biodiversity offsetting should incorporate consideration of species specific recolonisation potential.

BD10: Wildlife corridors should be large enough to be effective and be delivered in accordance with Natural England guidance.

BD11: Existing and compensation sites should be managed and maintained over the lifetime of the development. Information should be provided on future monitoring, management and targets for these sites including funding mechanisms.

BD12: Clear evidence should be provided on how quantitative losses have been balanced with qualitative gains to achieve biodiversity betterment.

BD13: Details of an effective river monitoring program during construction and operation should be provided. The monitoring program should be sufficiently comprehensive to identify any impacts to downstream ecosystems.

BD14: Evidence should be provided on how indirect effects, including increased traffic, increased emissions/pollution, increased travel and business demands, additional flight paths, etc., have been taken into account in biodiversity offsetting and compensation.

BD15: Evidence for the suitability of sites for biodiversity offsetting and compensation should be provided as there are significant restrictions in the local area including historic landfill, mineral sites undergoing restoration and areas with local plan proposals.

Design

BD16: The GLA's Natural Capital account for London should be implemented as a key component for sustainable project design. Biodiversity and green infrastructure considerations and best practice should be incorporated in early design.

BD17: Evidence should be provided on how connectivity of habitat and effect on protected and common species has been considered in the design.

BD18: The creation of wetland habitats should be a key driver when opportunities for flood storage areas are being explored.

Landscape and Visual Amenity

Introduction

The following section sets out HSPG's position in relation to the effects on landscape and visual amenity from Heathrow expansion. The section on Green and Blue Infrastructure provides further information.

Design

LS1: The design should be of the highest quality with an external appearance that is respectful of setting of the surrounding local context and character.

LS2: The design should include landscape screening, corridors, breaks and buffers to protect and enhance the character and visual amenity of surrounding areas, including where impacting the views and setting of surrounding residential area, public open spaces and green belt. This should be undertaken in accordance with the ANPS and Very Special Circumstances tests.

LS3: Additional considerations should be incorporated into the design including views from key vantage points, landscape character variations, vegetated and open space areas and land requiring remediation.

Local Character Areas

LS4: A plan should be provided of the local character areas, highlighting where the opportunities exist for management particularly in areas of lesser quality, urban and degraded landscapes.

LS5: Any open space which is replaced should, where appropriate, provide similar landscape, and the same accessibility and amenity to the affected neighbourhoods.

Lighting

LS6: Evidence should be provided of how light pollution has been considered in scheme assessment and design, and lighting options selected to minimise light pollution, in relation to effects on both residents and wildlife. A lighting strategy should be provided to include all associated development.

Green and Blue Infrastructure

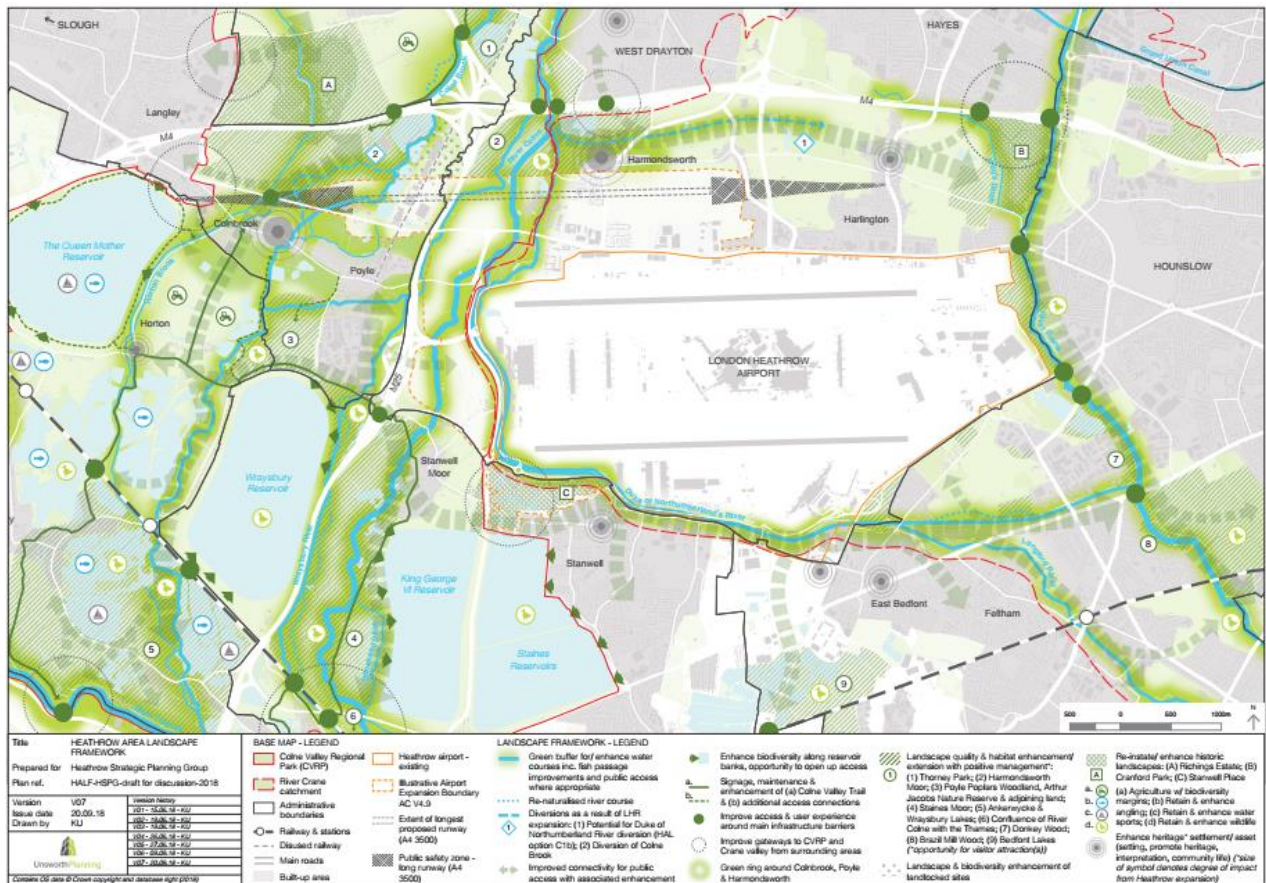
Introduction

The following section sets out HSPG’s position in relation to developing a design incorporating Green and Blue Infrastructure. A draft ‘Heathrow Area Landscape Framework’ has been produced by HSPG and involved inputs from Environment Agency, Historic England and Natural England. The intention of the Landscape Framework is to inform design and accommodation of Green and Blue Infrastructure associated with the development and the Heathrow Spatial Vision.

Green and Blue Infrastructure Plan

GB1: A clear spatial strategy for green and blue infrastructure should be produced at an early stage to inform decisions about overall layout and design of the airport. HSPG has developed a preferred strategy as illustrated in Figure 1. This may be subject to further refinement.

Figure 1: HSPG Landscape Framework Plan



GB2: A Green and Blue Infrastructure Plan should be implemented which adopts a landscape-scale vision and multi-functional approach to mitigation. This should detail long-term management proposals, delivery and maintenance of mitigation and compensation measures, responsibilities and a comprehensive funding plan for affected areas.

GB3: Green and Blue Infrastructure must connect and function in its own right, rather than utilising areas of land remaining once airport-related development has been planned. The Plan should consider strategic green corridors that connect both habitats and recreational/commuter routes and provide a multi-directional network.

GB4: A 'Green Loop' around the airport should be provided as a continuous habitat and recreational corridor, connecting to existing and proposed green and blue networks. Evidence should be provided that the Green Loop will be sufficiently wide to function effectively for both wildlife and recreation.

GB5: The permanent loss of functional Colne Valley Regional Park land should be compensated by resourcing the expansion of the boundaries of the Park elsewhere in the Colne Catchment.

GB6: The Plan should improve access to the countryside and to local opportunities for sport and recreation and compensate and mitigate any losses or harm. Routes for people should feel safe and attractive to use with nearby land uses laid out and designed to animate the routes and provide natural surveillance.

GB7: The design should make the best use of waterfront opportunities and green network around the whole airport.

Green Belt and Open Land

GB8: A formal review to establish the comparative value, function and potential role of areas of open land and green belt should be undertaken. This should then be used to inform the emerging design.

GB9: The scheme should minimise land take in the Green Belt and other protected open land, the natural environment and neighbourhoods, in accordance with Very Special Circumstances tests and with evidence provided on why alternatives have been rejected if green belt land is proposed to be lost.

GB10: A significant proportion of ARD should be dispersed to the network of surrounding town centres, commercial/industrial centres and regeneration areas throughout the Heathrow sub-region and hinterland, minimising the loss of Green Belt and open land. This should be planned and managed including through the Joint Spatial Planning Framework.

GB11: The London strategic ring of green and blue infrastructure should be maintained and consolidated where weak, including areas of green belt land. Loss of green belt and other open land will need to be compensated.

Settlements

GB12: Historic villages should be enhanced in terms of their setting and character, with 'Green Envelopes' where appropriate. This should take account of the green/recreational space either presently or potentially accessible to these communities.

GB13: Within the 'Green Envelopes' a programme of enhancement should be adopted and evidence provided on how the historic character of key settlements will be maintained and enhanced in future. HSPG should be included in the decision-making process for future uses of historic infrastructure.

GB14: Buffer zones of public open space should be provided between major parking areas and residential areas. The scale of development in areas adjoining residential areas should be reduced and be sensitive to the local landscape context.

Connectivity

GB15: Green corridors should be adopted on a wider strategic level, adapting strategic long-term plans that will ensure that these green corridors remain, integrate into a wider network, and are improved for the benefit of people and wildlife.

GB16: The design should ensure that habitat connectivity can be protected and enhanced between the upper Colne Catchment and the River Thames.

GB17: The design should provide green corridor connectivity including to the south of the airport where current links are poorer. Corridors on all sides of the expanded airport should act as radial spokes to link the Heathrow Green loop to the Colne Valley and Crane Valley which will provide significant recreational and biodiversity benefits.

GB18: The existing green connectivity should be maintained through Crown Meadow. Retention of Crown Meadow is vital to maintain habitat and recreational connectivity as one of the 'green corridors' to the west of the airport where the Green Belt and Colne Valley Regional Park is at its narrowest.

GB19: The design should improve physical connectivity for public access, including enhancing access and user experience around main infrastructure barriers. Gateways from surrounding areas should be improved including reducing severance due to major roads and railways.

GB20: Evidence should be provided that opportunities for enhancing the banks of local reservoirs have been explored with the Water authorities. This should include a contribution to 'greening' the local environment and improving connectivity.

Cumulative effects

Cumulative Effects

CU1: Evidence should be provided that a coordinated approach with the other major infrastructure projects in the local area has been undertaken in relation to the masterplan, particularly around connectivity. In accordance with PINs guidance, a holistic mitigation strategy should be developed to ensure cumulative effects with other major developments are mitigated.

CU2: Evidence should be provided that mitigation has been developed to address cumulative environmental effects, particularly in relation to construction stage impacts and transport and environmental impacts on local communities.

CU3: The schemes to be considered in the cumulative assessment should include consideration of an extended period to at least 2040 and include other airport related planning applications, other DCO schemes and ARD development. The list of developments should be reviewed on a regular basis. Minerals and waste related development and the Esso Southampton to London Pipeline should be included in cumulative assessment.

CU4: The cumulative effects assessment should address the cumulative effect of housing growth in the local areas over time. A larger population would be subject to the environmental effects of the scheme as the local population grows.

Appendix A: Additional Information

HSPG Vision (2016):

HSPG Outcomes Statement (2017)

HSPG Meeting Minutes, HSPG EIA Scoping, Environmental sub-group, Green and Blue Infrastructure sub-group, masterplan options