



Department  
for Transport

# Appraisal of Sustainability: draft Airports National Policy Statement

## Non-technical summary

Moving Britain Ahead

February 2017

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Department for Transport  
Great Minster House  
33 Horseferry Road  
London SW1P 4DR  
Telephone 0300 330 3000  
Website [www.gov.uk/dft](http://www.gov.uk/dft)  
General enquiries: <https://forms.dft.gov.uk>



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Editorial Note: On 3 February 2017 at 17:00, the Department for Transport added Editorial Notes in the web version of this document (on pages 19 and 24) to correct three small factual inaccuracies, two on page 19 and one on page 24. These corrections have been highlighted in the web version of this document and listed on a correction log published at [www.gov.uk/dft/heathrow-airport-expansion](http://www.gov.uk/dft/heathrow-airport-expansion). These three inaccuracies have been corrected in all hard copy printed versions of this document.

# 1. Introduction

The Government believes there is a need for increased airport capacity in the South East of England by 2030.<sup>1</sup> It has produced a draft Airports National Policy Statement, which sets out why the increased capacity is needed and how it will be achieved. National Policy Statements undergo a democratic process of public consultation and Parliamentary scrutiny, before being designated (i.e. when the National Policy Statement comes into force). They provide the framework within which the Planning Inspectorate makes its recommendations to the Secretary of State. These recommendations are then reviewed by the Secretary of State who makes the final decision on whether to grant or refuse development consent (permission to proceed to construction).

Legislation requires that these documents must be accompanied by an Appraisal of Sustainability of the policy set out in the National Policy Statement. The Appraisal of Sustainability will assess the potential environmental, economic and social impacts of the proposed policy in the National Policy Statement, and may incorporate other assessments required as a matter of law (for example a Strategic Environmental Assessment, a Habitats Regulations Assessment or an Equalities Impact Assessment) or policy (for example a UK Government impact assessment or health impact assessment).

This non-technical summary is intended to summarise the key findings of the Appraisal of Sustainability for the draft Airports National Policy Statement. The non-technical summary is comprised of the following sections:

- 1) **Scheme background and context**, which sets out how and why the Government believes there is a need for additional airport capacity in the South East of England;
- 2) **The preferred scheme**, setting out why the Government believes that additional airport capacity is best delivered via the Heathrow Northwest Runway scheme;
- 3) **Alternatives to the preferred scheme**, outlining the two other schemes for airport expansion shortlisted by the Airports Commission;
- 4) **The draft Airports National Policy Statement**, which sets out details of the draft Airports National Policy Statement;
- 5) **The Appraisal of Sustainability process**, showing how the Appraisal of Sustainability was developed and the headlines of the report; and
- 6) **Next steps** to highlight the process that will follow in the future.

The proposed Heathrow Northwest Runway Scheme would be a nationally significant infrastructure project under the Planning Act 2008.<sup>2</sup> This means that the applicant would need to make an application to the Secretary of State for development consent to build a new runway at Heathrow Airport. Development consent is granted by the Secretary of State through a development consent order, which sets out the powers to construct and operate the scheme. The application would be subject to an Environmental Impact Assessment.

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<sup>1</sup> <https://www.gov.uk/government/speeches/aviation-capacity>

<sup>2</sup> <http://www.legislation.gov.uk/ukpga/2008/29/contents>

By law, before designating an Airports National Policy Statement, an Appraisal of Sustainability must be carried out.

This Appraisal of Sustainability is a strategic level assessment. It is based on the contents of the draft Airports National Policy Statement. The Appraisal of Sustainability considers alternatives to the Government's preferred scheme as set out in the draft Airports National Policy Statement, including the outline masterplans supplied to the Airports Commission for the three shortlisted schemes.

This Appraisal of Sustainability considers the impacts of expansion without the benefits of the mitigation package put forward by scheme promoters, unless stated otherwise. The Government has outlined that it expects a significant mitigation package to be put in place by the promoter of its preferred scheme to ensure that, wherever possible, significant effects are avoided, reduced or offset.

Further project level design will be required, which will inform an Environmental Impact Assessment carried out by the promoter. This would include an assessment which is likely to include effects identified in the Appraisal of Sustainability, as well as more detailed mitigation, developed as detailed design progresses. This will also be developed through consultation with both affected communities and other stakeholders.

## 2. Scheme background and context

The independent Airports Commission<sup>3</sup> was set up in September 2012 to recommend a solution that would enable the UK to maintain its position as Europe's most important aviation hub. The Airports Commission's recommendation can be read in full in its Final Report.<sup>4</sup>

The Airports Commission concluded that, without additional airport capacity in the South East, London's airports would be full by 2040.<sup>5</sup> A longlist of more than 50 proposals was considered, and the Airports Commission put forward a shortlist of three schemes, comprising the Heathrow Northwest Runway Scheme, an Extended Northern Runway Scheme, and the Gatwick Second Runway Scheme.<sup>6</sup> In its Final Report, it recommended a Northwest Runway at Heathrow Airport, in combination with a significant package of measures to address its environmental and community impacts. In December 2015, the Government accepted the Airports Commission's case for airport expansion in the South East by 2030 and its shortlist of schemes for expansion.<sup>7</sup> The Department for Transport also undertook further work on air quality, noise, carbon and managing the impacts of expansion on affected local communities.

On 25 October 2016, the Government announced that its preferred scheme was a new Northwest Runway at Heathrow Airport.<sup>8</sup> The Government placed particular weight upon the performance of the Heathrow Northwest Runway scheme in: providing economic and employment benefits; long haul flights and connections; domestic connectivity; lower fares; support for the freight industry; and surface access links to the rest of the UK.

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<sup>3</sup> <https://www.gov.uk/government/organisations/airports-commission>

<sup>4</sup> <https://www.gov.uk/government/publications/airports-commission-final-report>

<sup>5</sup> *Airports Commission: Final Report*, p3

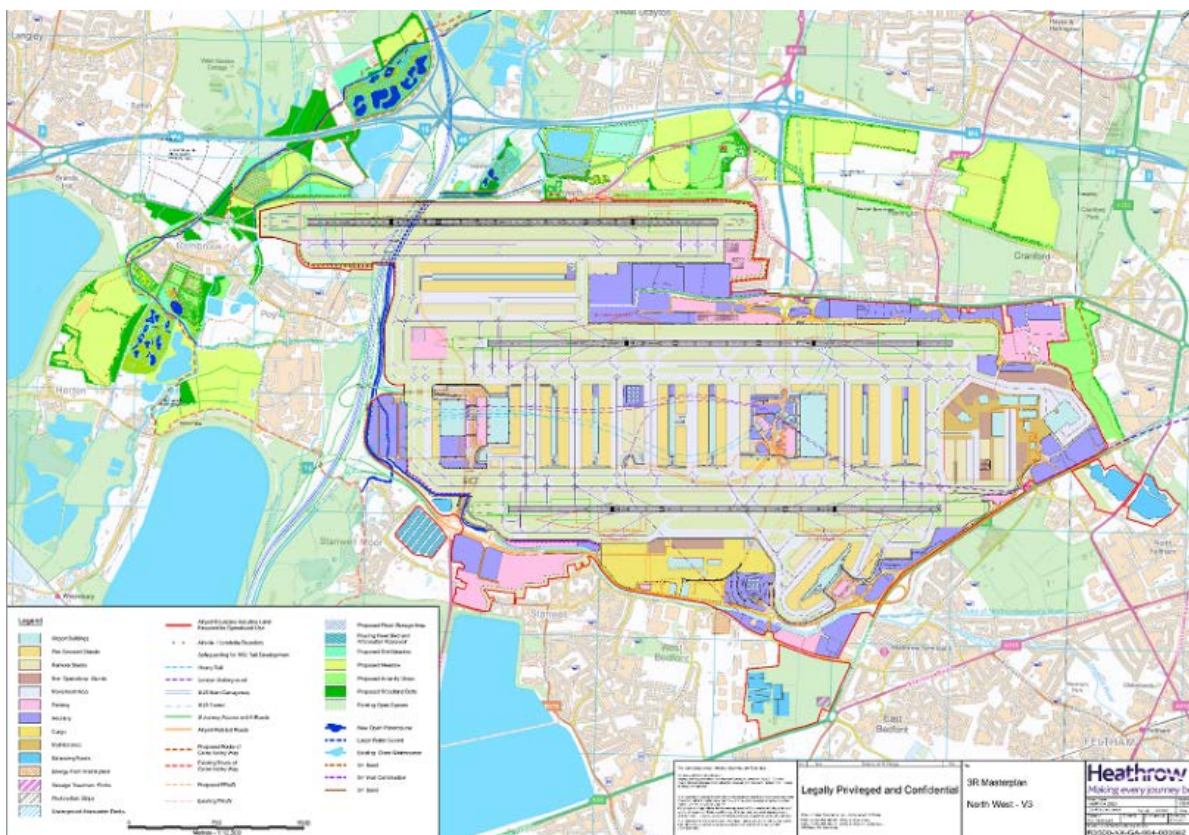
<sup>6</sup> <https://www.gov.uk/government/publications/airports-commission-interim-report>

<sup>7</sup> <https://www.gov.uk/government/speeches/aviation-capacity>

<sup>8</sup> <https://www.gov.uk/government/speeches/airport-capacity>

### 3. The Government's preferred scheme

The Heathrow Northwest Runway scheme would consist of a new, full length runway of at least 3,500m, constructed to the Northwest of the current Northern Runway at Heathrow, sitting further to the west than the existing runways. This is forecast to allow an operating capacity of at least 740,000 flights departing and arriving per year.<sup>9</sup> While the exact detail of supporting infrastructure for the scheme will be determined via the planning and regulatory process, other new infrastructure or reconfiguration of existing infrastructure, including new terminals, could also be provided to serve the new runway.



*Illustrative Heathrow Northwest Runway scheme masterplan. Source: Airports Commission Final Report*

Heathrow Airport is the busiest two-runway airport in the world. The airport is the busiest in the UK and in Europe, and the sixth busiest in the world. The airport has a capacity of 480,000 air transport movements per annum, limited by a planning cap, and is operating at over 98% of this capacity.

Heathrow Airport is one of the world's major hub airports, serving around 180 destinations worldwide,<sup>10</sup> including a diverse network of onward flights across the UK

<sup>9</sup> *Airports Commission: Final Report*, p29. Each flight departing or arriving is known as an air transport movement, the total number of which is measured per annum

<sup>10</sup> <https://your.heathrow.com/takingbritainfurther/vision/new-destinations/>

and Europe. Building on this base, expansion at Heathrow Airport will mean it will continue to attract a growing number of transfer passengers,<sup>11</sup> providing the added demand to make more routes viable. In particular, this is expected to lead to more long haul flights and connections to fast-growing economies, helping to secure the UK's status as a global aviation hub, and enabling it to play a crucial role in the global economy.

**Expansion via the Heathrow Northwest Runway scheme would provide the biggest boost to connectivity**, particularly in terms of long-haul flights. This is important to a range of high-value sectors across the economy in the UK which depend on air travel, as well as for air freight as capacity increases, and should boost trade and GDP.



**Expansion via the Heathrow Northwest Runway scheme would quickly provide benefits to passengers.** The Heathrow Northwest Runway scheme is expected to provide benefits to business and leisure passengers and the wider economy (not including wider trade benefits) of up to £61 billion over 60 years.<sup>12 13</sup> This benefit includes the lower fares that passengers can expect to pay as a result of increased competition between airlines, relative to no expansion.

Expansion via the Heathrow Northwest Runway scheme should deliver additional jobs at the airport, through its supply chain, and in the local community. The Heathrow Northwest Runway scheme is expected to generate tens of thousands of new jobs.

**Heathrow Airport is better connected to the whole of the UK by road and rail than the other shortlisted schemes.** Heathrow Airport already has good road links via the M25, M4, M40 and M3, and rail links via the London Underground Piccadilly Line, Heathrow Connect and Heathrow Express. In the near future, it will be connected to Crossrail, plans are being developed for improved rail access via Western and Southern Rail Access schemes. Heathrow Airport will additionally be linked to HS2 via Old Oak Common. Journey times will be 53 minutes from Birmingham, 1 hour 23 mins from Manchester, and 1 hour 38 mins from Leeds.

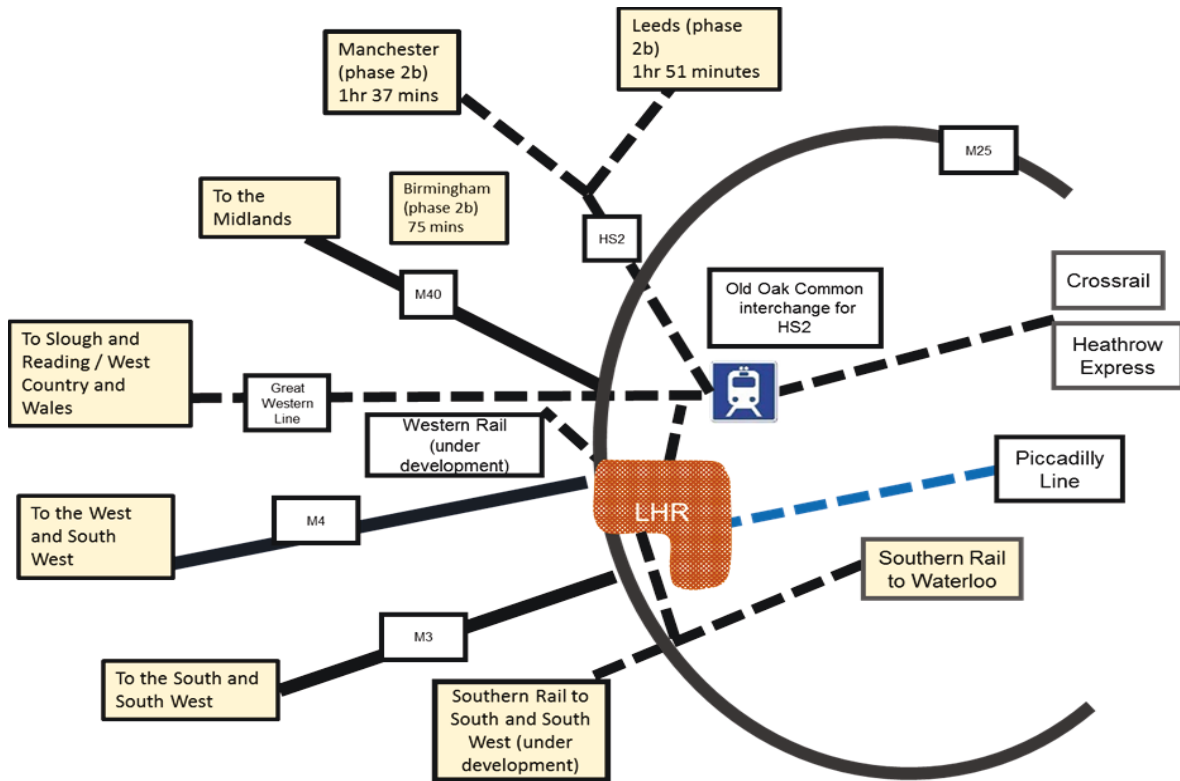
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<sup>11</sup> Passenger numbers include those changing planes, who are therefore counted twice, reflecting the fact that they arrive on one flight and depart on another

<sup>12</sup> For clarity of presentation, only the central estimate in the 'carbon traded' scenario is presented here. This does not imply any Government position on future carbon policy. Estimates under different carbon and demand scenarios are available in section 3.13 of the Appraisal of Sustainability, Appendix A-3: Economy. For background on the carbon and demand scenarios themselves, see sections 3 and 4 of the Airports Commission's *Strategic fit: updated forecasts* <https://www.gov.uk/government/publications/airports-commission-final-report-strategic-fit>

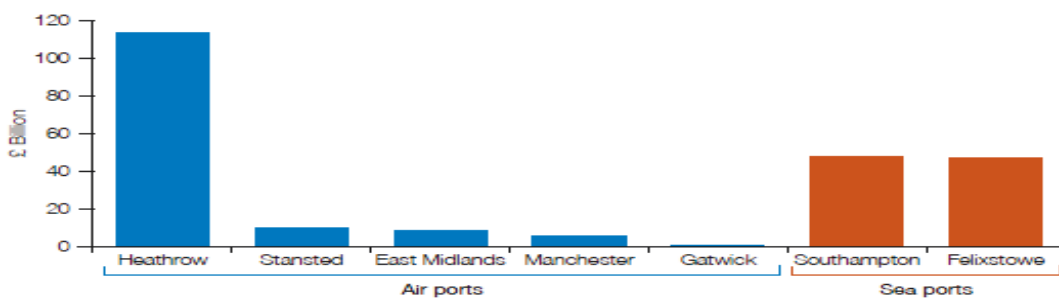
<sup>13</sup> This includes passenger benefits to UK residents, non-UK residents, and international-to-international interliners





Heathrow Airport future surface access links. Source: Department for Transport

**Heathrow Airport directly delivers the greatest growth opportunity for freight.** The plans for a new runway include a doubling of freight capacity at the airport. Heathrow already handles more non-EU freight by value than all other UK airports combined and twice as much as our two largest container ports – Southampton and Felixstowe. Compared to Gatwick, Heathrow’s total freight handling is around 20 times larger by tonnage, and non-EU freight handling is over 200 times larger by value.



Freight by value compared to other ports in 2015. Source: Department for Transport

### Supporting measures, enhancement, and mitigation of impacts

The Government recognises that any airport, which can bring many positive impacts, can also have negative local impacts. That is why the Government agrees with the Airports Commission’s conclusion that a comprehensive package of mitigation measures is needed to address the environmental and community impacts of the expansion, and to make the development more acceptable to the local community that surrounds Heathrow Airport.

## 4. Alternatives to the preferred scheme

The two other schemes shortlisted by the Airports Commission and assessed in the Appraisal of Sustainability are:

Gatwick Second Runway scheme: proposes a new full length runway to the south of the existing runway (of around 3,400m), with a separation between the runways of 1,045m. While the exact detail of scheme design would be determined via the planning process, the shortlisted design also proposes a new terminal building to the south of the existing South Terminal (i.e. at the eastern end of the runways), plus a new pier and satellites. The new runway is forecast to enable a proposed operating capacity of 560,000 flights departing and arriving per year.



*Illustrative Gatwick Second Runway scheme masterplan. Source: Airports Commission Final Report*

Gatwick Airport is the busiest single runway airport in the world. It is also the second busiest in the UK, the ninth busiest in Europe, and the 37<sup>th</sup> busiest in the world. Like Heathrow Airport, it has continued to grow over recent years, handling over 40 million passengers and 73,000 tonnes of air freight (of which the non-EU share was worth £500 million) in 2015. The airport has a capacity of 280,000 air transport movements per annum, and is operating at around 94% capacity.

Heathrow Extended Northern Runway scheme: proposes to extend the existing northern runway to the west. This would create two separate 3,000m runways, with a 650m safety zone between the two. The runways would be used for departures and arrivals at the same time, effectively operating as two separate runways. While the exact detail of supporting infrastructure for the scheme would be determined via the planning and regulatory process, the shortlisted scheme design also proposes a new terminal building to the west of the current terminal area. The scheme is forecast to provide an operating capacity of 700,000 flights departing and arriving per year.



*Illustrative Heathrow Extended Northern Runway scheme masterplan. Source: Airports Commission Final Report*

### **Other schemes considered**

In addition to the three shortlisted schemes, further feasibility studies were undertaken on a new airport in the inner Thames Estuary. The Airports Commission published the findings on these studies in September 2014. They concluded that a Thames Estuary scheme was not appropriate for shortlisting.<sup>14</sup>

Further details regarding each of these schemes can be found within the Appraisal of Sustainability.

<sup>14</sup> <https://www.gov.uk/government/publications/inner-thames-estuary-airport-summary-and-decision>

## 5. The draft Airports National Policy Statement

The draft Airports National Policy Statement sets out:

- The Government's draft policy on the need for new airport capacity in the South East of England by 2030;
- The Government's preferred location and scheme to deliver additional capacity in the South East by 2030; and
- The matters that an applicant will need to address when it brings forward an application for development consent to which the draft Airports National Policy Statement applies, for example in relation to providing mitigation to address the impacts of the development.

The draft Airports National Policy Statement is also related to other policies at a national level. These include:

- The Aviation Policy Framework,<sup>15</sup> which sets out the high level objectives and policies for aviation and its role in driving growth, creating jobs and facilitating trade, whilst at the same time addressing a range of local environmental impacts;
- The National Networks National Policy Statement,<sup>16</sup> which sets out the Government's policies to deliver development of the national road and rail networks and;
- The National Planning Policy Framework,<sup>17</sup> which provides a framework within which local authorities can put in place local plans to bring forward developments (including airport development).

There are also a number of other existing policies relating to noise, carbon emissions and climate change, airspace, economic regulations, connectivity to other airports and safety and security.

### **Airspace consultation**

In parallel with the consultation on the draft Airports National Policy Statement, the Government has published its consultation on UK airspace policy, which will consider a number of important changes that are linked to, but not dependent on, the Heathrow Northwest Runway scheme. This includes the Government's proposals on a new Independent Commission on Civil Aviation Noise. Our proposed changes to the UK's airspace policy will support the continued growth of the aviation sector while balancing the needs of communities affected by aircraft noise

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<sup>15</sup> <https://www.gov.uk/government/publications/aviation-policy-framework>

<sup>16</sup> <https://www.gov.uk/government/collections/national-networks-national-policy-statement>

<sup>17</sup> <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

## 6. The Appraisal of Sustainability process

The Appraisal of Sustainability is comprised of 12 topics, which represent key areas likely to be affected by additional airport capacity. The appraisal assesses the impacts of the three schemes against objectives for each topic, for example maximising economic benefits and minimising noise.



The objectives contained in the Appraisal of Sustainability framework are set out below. More detail regarding the Appraisal of Sustainability framework and the appraisal questions can be found in the Appraisal of Sustainability report.

Appraisal of Sustainability topic	Appraisal of Sustainability objective
<b>Community</b>	
	1. To avoid or minimise negative effects on community viability, including housing, facilities and indirect effects
	2. To avoid or minimise disproportionate impacts on any social group
<b>Quality of life</b>	
	3. To maintain and where possible improve the quality of life for local residents and the wider population
<b>Economy</b>	
	4. To maximise economic benefits and to support the competitiveness of the UK economy.
	5. To promote employment and economic growth in the local area and surrounding region
<b>Noise</b>	
	6. To minimise and where possible reduce noise impacts on human receptors
<b>Biodiversity</b>	
	7. To protect and enhance designated sites for nature conservation
	8. To conserve and enhance undesignated habitats, species, valuable ecological networks and ecosystem functionality

<b>Soil</b>	
	9. To protect sites designated for geodiversity
	10. To minimise loss of undeveloped soils and of best and most versatile agricultural land, and protect soil against erosion, contamination and degradation
<b>Water</b>	
	11. To protect the quality of surface and ground waters, and use water resources sustainably
	12. To minimise flood risk and ensure resilience to climate change
<b>Air quality</b>	
	13. To improve air quality and reduce emissions consistent with EU, national and local standards and requirements
<b>Carbon</b>	
	14. To minimise carbon emissions in airport construction and operation
<b>Resources</b>	
	15. To minimise consumption of natural, particularly virgin non-renewable, resources
	16. To minimise the generation of waste in accordance with the principals of the resource efficiency hierarchy
<b>Historic environment</b>	
	17. Conserve and where appropriate enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains
<b>Landscape</b>	
	18. To promote the protection and improvement of landscapes townscapes, waterscapes and the natural features, including areas of tranquillity and dark skies

Potential impacts are outlined within each topic specific assessment, but it is recognised that impacts can also cover more than one topic.

The Appraisal of Sustainability considers the impacts for sustainability objectives during construction and during operation and has assumed that the additional airport capacity will be:

- Constructed between 2020 and 2025;
- Opened from 2025/2026; and
- Operational from 2030.

The promoters of all three shortlisted schemes continued to refine their schemes following the formal submission of scheme designs to the Airports Commission in May 2014 and in discussion with the Government. These refinements were not captured within the Airports Commission's appraisals, but the refinements have been assessed as part of the schemes considered within the Appraisal of Sustainability.

The following assumptions were considered during the assessment of the shortlist:

- The amount of land needed;
- The road and rail requirements;
- The airspace requirements; and
- The predicted demand for flights and growth in passengers.

### **Heathrow Airport today with two runways (baseline), impact of a Heathrow Northwest Runway scheme, and supporting measures**

The purpose of the Appraisal of Sustainability is to assess the performance of the shortlisted schemes under each of the 12 topics listed in the table demonstrating the headline impacts of expansion via a Northwest Runway at Heathrow Airport. Where possible positive or negative effects are identified, the Appraisal of Sustainability sets out the action ('supporting measures') which Government will require the applicant to take forward in order to enhance or mitigate impacts, for example furthering economic benefits by asking the airport operator to commit to increasing the uptake of apprenticeships.

The order of preference in addressing the impacts of effects is to:

1. Prevent or avoid negative effects;
2. Reduce or minimise negative effects; and
3. Offset, ameliorate or compensate for negative effects.

The draft Airports National Policy Statement contains Government policy in relation to mitigation and sets out the matters which any applicant bringing forward an application to which the Airports National Policy Statement applies will need to address.

The table below sets out the headlines from the key findings of the Heathrow Northwest Runway scheme. In particular it shows:

1. **Heathrow today** (the baseline). This column is a summary of Heathrow Airport and the surrounding area with two runways as it is today. Heathrow Airport is located within an urban location and therefore has a baseline which is commensurate with the positive and negative impacts that urban locations usually have.
2. **The expected impact of expansion at Heathrow Airport**. This column provides a summary of the expected impact of expansion, i.e. the Heathrow Northwest Runway scheme. It should be noted that this is the impact of expansion without 'supporting measures' which create enhancements or mitigations. The Airports Commission recommended that development of a Northwest Runway at Heathrow Airport is accompanied by a world-class community compensation package. Impacts have been assessed against the expected future baseline.
3. **Supporting measures for an expanded Heathrow Airport**. The Government agrees and has further developed the Airports Commission's recommendation that development of a Northwest Runway at Heathrow Airport should be accompanied by supporting measures, which both enhance positives and mitigate negative impacts. This column highlights some of the supporting measure proposals, which will be subject to consultation.

Detailed information on Heathrow Airport with two runways today (the baseline), impacts of the Heathrow Northwest Runway Scheme, and supporting measures can be found in the relevant topic assessments at Appendix A of the Appraisal of Sustainability. A similar assessment of the alternative schemes to the preferred scheme, the Gatwick Second Runway scheme and the Extended Northern Runway scheme, has been carried out. A full breakdown of the assessment and the comparative merits of each scheme can be accessed in the Appraisal of Sustainability report, including sensitivity analysis based upon different future economic scenarios to present a full range of impacts



<b>Economy: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a new Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>• Heathrow Airport supported 84,400 jobs in 2011</li> <li>• An extensive cluster of foreign owned firms, which are attracted by good connectivity around Heathrow Airport, contributes over 170,000 jobs</li> <li>• Historic growth in Gross Value Added (the value of goods and services produced) has been above average in the surrounding Heathrow area Local Enterprise Partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of between 37,740 and 76,650 local jobs by 2030 and between 39,100 and 78,360 jobs by 2050</li> <li>• Expected to provide benefits to business and leisure passengers and the wider economy (not including wider trade benefits) of up to £61 billion over 60 years<sup>18</sup></li> <li>• Improvement to the transport network to accommodate passenger growth</li> <li>• Improved connectivity for businesses, including better access to foreign markets, boosting productivity, trade and GDP</li> </ul>	<ul style="list-style-type: none"> <li>• The positive impacts on the economy would be enhanced by the promoter providing 5,000 additional apprenticeships</li> </ul>

<sup>18</sup> For clarity of presentation, only the central estimate in the 'carbon traded' scenario is presented here. This does not imply any Government position on future carbon policy. Estimates under different carbon and demand scenarios are available in section 3.13 of the Appraisal of Sustainability, Appendix A-3: Economy. For background on the carbon and demand scenarios themselves, see sections 3 and 4 of the Airports Commission's Strategic fit: updated forecasts <https://www.gov.uk/government/publications/airports-commission-final-report-strategic-fit>

<b>Quality of Life: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>• The areas surrounding Heathrow Airport are more densely populated than the national average.</li> </ul>	<ul style="list-style-type: none"> <li>• Disruption to the road network could result in increased congestion during the construction phase</li> <li>• Loss of housing and the remaining residents would experience the disruption of an extended construction period</li> <li>• Displacement of Harmondsworth Primary School and community facilities</li> <li>• Additional employment opportunities, both locally and nationally, from airport expansion construction jobs, airport operational jobs and supporting industries</li> </ul>	<ul style="list-style-type: none"> <li>• Mitigation measures which will address the impacts to quality of life are described in the other topics – see air quality, noise, biodiversity, cultural heritage and landscape</li> <li>• Relocation of community facilities where possible</li> </ul>

Noise: Heathrow Airport today with 2 runways (baseline)	Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations	Supporting Measures
<ul style="list-style-type: none"> <li>Approximate number of people currently affected by noise:<sup>19</sup> 266,100</li> <li>It is anticipated that in future aircraft will be quieter than aircraft used today, which would lead to a decrease in the number of people in the area currently affected by aircraft noise without a third runway</li> </ul>	<ul style="list-style-type: none"> <li>Around 257,800* people will be affected by noise by 2030 with the Northwest Runway scheme<sup>20</sup>.</li> <li>Around 36,900* more people will be affected by noise with a third runway than compared to a two runway Heathrow Airport in 2030</li> </ul>	<ul style="list-style-type: none"> <li>A noise envelope with noise performance targets to be tailored to local priorities</li> <li>Expectation of a six-and-a-half hour ban on scheduled night flights</li> <li>Predictable respite to be provided through runway alternation</li> <li>Noise insulation for residential properties and schools</li> </ul>
<p>* Editorial Note: The marked figures should read “252,000” instead of “257,800”, and “34,700” instead of “36,900”. The Department for Transport added this Editorial Note on 3 February 2017 at 17:00 to correct these two factual inaccuracies.</p>		

<sup>19</sup> Based on the number of people exposed to noise levels of at least 57dB LAeq 16hr, the value traditionally regarded by Government as marking the approximate onset of significant community annoyance

<b>Soils: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>The largest quantity of land within the site is agriculture</li> <li>No sites designated for geodiversity sensitivity have been identified within a 5km radius of the site</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 900 hectares of land would be required for the scheme, with around 430 hectares of this comprising agricultural land. This land cannot be compensated by providing land elsewhere</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to be minimised during the detailed design stage of the development by using good design principles, including site layout, and providing for the protection of soils during construction</li> </ul>
<ul style="list-style-type: none"> <li>Sources of contamination have been identified within the area of Heathrow Airport, including previous fuel spillages and landfills</li> </ul>	<ul style="list-style-type: none"> <li>Soils may become polluted during construction and runway use. The structure of the soil could also be damaged</li> </ul>	<ul style="list-style-type: none"> <li>The potential for contamination can be reduced through design</li> </ul>
<b>Community: Heathrow today with 2 runways (baseline)</b>	<b>Impact of a new Northwest runway in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>Heathrow Airport is situated within an urban area on the edge of West London</li> <li>Communities surrounding Heathrow Airport will be subject to pressure from urban development in future years</li> </ul>	<ul style="list-style-type: none"> <li>Up to 783 homes would need to be demolished to create space for the new runway</li> <li>Some community facilities would need to be demolished.</li> <li>New homes and community facilities are required to support a new runway</li> </ul>	<ul style="list-style-type: none"> <li>Commitment from Heathrow Airport to pay 125% of market value plus taxes and reasonable moving costs for all owner occupied homes within the compulsory acquisition zone and to pay 125% of market value plus taxes and reasonable moving costs for all owner occupied homes within an additional</li> </ul>

<sup>20</sup> Based on the number of people exposed to noise levels of at least 57dB LAeq 16hr, the value traditionally regarded by Government as marking the approximate onset of significant community annoyance.

		<p>voluntary purchase / acquisition zone incorporating the area known as the "Heathrow Villages"</p> <ul style="list-style-type: none"> <li>• A Community Engagement Board to work with local stakeholders</li> <li>• A Community Compensation Fund</li> </ul>
<b>Biodiversity: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>• 8 sites of importance for biodiversity at International level within 15km of Heathrow Airport</li> <li>• 34 Sites of Special Scientific Interest, 4 National Nature Reserves and 9 Local Nature Reserves within 15km of Heathrow Airport</li> <li>• 80 non-statutory sites designated for county importance for wildlife within 5km of Heathrow Airport</li> <li>• Key protected species include bats, otter, water vole, reptiles (including grass snake and slow worm), and various species of birds</li> </ul>	<ul style="list-style-type: none"> <li>• Potential loss of habitats, species, valuable ecological networks and ecosystems</li> <li>• Potential for indirect effects from habitat loss, reduced water quality, recreational disturbance and poor air quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Compensation land to be provided, including habitat creation</li> </ul>

<b>Water: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>• There are 8 watercourses, 5 lakes/reservoirs and 1 groundwater body in the area surrounding Heathrow Airport. The majority of these water bodies are classified as 'Artificial / Heavily Modified Water Bodies' and their environmental status is not expected to improve</li> <li>• The South East of England is 'water stressed' due to availability of water</li> <li>• It is expected that climate change may increase peak river flows by 10% up to 2025 and by 25% up to 2085. Rainfall may also increase during this period by 5% and 20% respectively</li> </ul>	<ul style="list-style-type: none"> <li>• At least 12km of watercourse would need to be diverted or realigned including major diversions of the Colne Brook and the Poyle Channel</li> <li>• The diversion of the River Colne may also affect wetlands at Staines Moor Site of Special Scientific Interest, for instance by affecting the flow of water, which may in turn affect wildlife habitats</li> <li>• The quality of surface water and groundwater could be affected by pollutants and sediment created from constructing the airport and by de-icing and cleaning chemicals once the runway is in operation</li> <li>• There is potential for increased flood risk from reducing the greenfield area available to absorb rainfall and redirecting flows so that flooding occurs elsewhere</li> </ul>	<ul style="list-style-type: none"> <li>• Methods used to construct the runway would be chosen and adapted to minimise risks of polluting water</li> <li>• The proposed design of the runway has set aside more land for flood attenuation and storage (47ha) than is being lost to development (40ha). This is likely to lead to an increase in the overall flood storage for the catchment from surface water</li> <li>• The impact on local water resources can be minimised through planning and design for the efficient use of water, including water recycling</li> <li>• The project should adhere to any National Standards for Sustainable Urban Drainage Systems and have regard to relevant legislation and policy such as the Water Framework Directive</li> </ul>

		<ul style="list-style-type: none"> <li>The design of the runway should aim to reduce or avoid impacts on water at the Staines Moor Site of Special Scientific Interest</li> </ul>
<b>Air quality: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>Road traffic, in particular diesel engines, is the principal source of emissions causing poor local air quality.</li> <li>Aircraft emissions have relatively little impact as they disperse significantly before reaching people or ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>As well as leading to more journeys by air, increased air capacity is likely to increase the number of cars and other vehicles travelling to and from the airport.</li> <li>However, the biggest impact on air quality is not from the preferred scheme, but the level of emissions in urban areas more generally</li> </ul>	<ul style="list-style-type: none"> <li>The promoter has put forward a series of measures to minimise air quality impacts during construction and operation which Government expects to be honoured and cemented through the development consent order process.</li> <li>In addition the promoter has committed to targets to increase the numbers of people accessing the airport by public transport.</li> <li>Development consent will only be granted if the Secretary of State is satisfied that the scheme will be compliant with air quality legal requirements.</li> </ul>

Carbon: Heathrow Airport today with 2 runways (baseline)	Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations	Supporting Measures
<ul style="list-style-type: none"> <li>• Between 1990 and 2015, UK greenhouse gas emissions reduced by 38%</li> <li>• At present, aviation is a relatively small contributor - emissions from flights departing the UK account for around 6% of UK greenhouse gas emissions</li> <li>• Emissions are projected to grow as demand for air travel is forecast to increase within the range of 1% to 3% a year up to 2050. Aviation is therefore likely to be a significant contributor in coming decades</li> <li>• Emissions from flights departing Heathrow (both domestic and international) are currently around 19MtCO<sub>2</sub> p.a. This represents around 55% of the total from UK departing flights (34 MtCO<sub>2</sub> p.a.)</li> </ul>	<ul style="list-style-type: none"> <li>• Emissions at Heathrow Airport could increase by* up to 22 MtCO<sub>2</sub> p.a. with the Northwest Runway scheme.<sup>21</sup></li> <li>• Emissions from flights make up around 90% of these emission associated with the scheme over the period assessed. The remainder is comprised of emissions from vehicles accessing the airport, airport buildings and airside ground operations and the construction work</li> <li>• Analysis by the Airports' Commission has shown that a new runway is deliverable within the Government's international carbon commitments</li> </ul>	<ul style="list-style-type: none"> <li>• The promoter has put forward a series of measures to minimise carbon impacts during construction and operation which Government expects to be honoured and cemented through the development consent order process</li> </ul>

\* Editorial Note: The marked sentence should read “increase to up to 22 MtCO<sub>2</sub>” rather than “increase by up to 22 MtCO<sub>2</sub>”. The Department for Transport added this note on 3 February 2017 at 17:00 to correct this inaccuracy.

<sup>21</sup> For clarity of presentation, only the central estimate in the ‘carbon traded’ scenario is presented here. This does not imply any Government position on future carbon policy. Estimates under different carbon and demand scenarios are available in the Appraisal of Sustainability, Appendix A-9: Carbon. For background on the carbon and demand scenarios themselves, see sections 3 and 4 of the Airports Commission’s Strategic fit: updated forecasts <https://www.gov.uk/government/publications/airports-commission-final-report-strategic-fit>



<b>Resources and Waste: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>Minerals and metals are a combination of natural non-renewable and other resources vital for the construction, manufacturing and energy industries. Opportunities and supporting infrastructure for reclaiming, re-using and recycling construction materials are increasingly available in the UK</li> </ul>	<ul style="list-style-type: none"> <li>Significant amounts of non-renewable raw materials would be required to construct the new runway and large amounts of waste would be produced through building demolition and ground excavation</li> <li>The Lakeside Energy from Waste facility at Colnbrook would need to be demolished, which may also impact waste management in the area</li> </ul>	<ul style="list-style-type: none"> <li>The promoter should seek to minimise the volume of waste sent for disposal unless it can demonstrate that it is the best overall environmental, social and economic outcome</li> </ul>
<b>Historic Environment: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>Within the area of land needed for expansion, including land for surface access corridors, there is 1 Grade I listed building, 22 Grade II* listed buildings, 2 Scheduled Monuments and 2 Conservation Areas. There are also 167 non-designated assets within this area</li> <li>In addition to the above, there are further designated and non-designated assets within 5km of the area boundary</li> </ul>	<ul style="list-style-type: none"> <li>21 listed buildings would need to be demolished and there would be harm to the setting of 54 listed buildings immediately surrounding the new runway. The setting of 166 designated assets in the wider area may be affected</li> <li>167 archaeological remains would be lost or damaged and a further 90 could be affected by changes to their setting</li> </ul>	<ul style="list-style-type: none"> <li>The promoter should look for opportunities for new development to enhance and better reveal the significance of heritage assets</li> </ul>

<b>Landscape: Heathrow Airport today with 2 runways (baseline)</b>	<b>Impact of a Heathrow Northwest Runway Scheme in the absence of any supporting measures which create enhancements or mitigations</b>	<b>Supporting Measures</b>
<ul style="list-style-type: none"> <li>• Heathrow Airport sits within a largely man-made landscape of predominantly urban / industrial nature</li> <li>• A locally designated, locally valued Area of Landscape Importance is located on the south west edge of the 5km study area. Four Registered Parks and Gardens lie within the 5km study area and Areas of Open Access Land lie close to the Thames Path National Trail in the southern part of the study area</li> <li>• Views towards the airport from the north, east and south are restricted by built development. Raised reservoir embankments and vegetation along the M25 and M4 and waterways also constrain views of the airport</li> </ul>	<ul style="list-style-type: none"> <li>• Impact on the visual appearance of the landscape</li> <li>• Additional flight capacity would negatively affect the darkness of the skies and general tranquillity of the wider landscape</li> <li>• Partial loss of the Colne Valley Regional Park</li> </ul>	<ul style="list-style-type: none"> <li>• Compensatory land to be provided to recreate recreational green spaces</li> <li>• Appropriate design, materials, layout and landscaping schemes to be used to minimise effects</li> </ul>

<ul style="list-style-type: none"><li>• The character of local settlements is predominantly of ordinary quality and character, and is reasonably tolerant of change. The area is under pressure from urban development given its proximity to London, its major transport links and the airport</li></ul>		
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Monitoring

It is a legislative requirement that the significant effects identified through the Appraisal of Sustainability process are monitored so that any issues which may arise are quickly spotted. It will be the responsibility of an applicant to propose a monitoring strategy as part of the project development and detailed design process.

## 7. Next steps

The process set out in the Planning Act 2008, as amended by the Localism Act 2011, streamlines the process for securing consent to build major infrastructure projects, like the preferred scheme. Under the previous system, for example, the Heathrow Terminal 5 inquiry took eight years from the first planning application to Government approval.

We believe that people rightly need certainty, so this process is designed for speed without losing fairness. The Government has set out why it believes the UK needs a Northwest Runway at Heathrow Airport, and the evidence for that decision. The public and Parliament are now being consulted. Once views from this consultation have been taken into account, a final Airports National Policy Statement and Appraisal of Sustainability will be laid in Parliament. There will then be the opportunity for a vote in the House of Commons, ensuring that all MPs, representing all parties, have a say in this matter of vital national interest.

It will then be a matter for an applicant to submit an application for development consent in accordance with the policy contained in the Airports National Policy Statement. Such an application is also subject to consultation and discussion with communities, and then a formal planning inquiry overseen by the Planning Inspectorate follows. The Planning Inspectorate will then recommend to the Secretary of State whether or not development consent should be granted. The Secretary of State will make a final decision on whether to grant or refuse development consent.