

# The impacts of expansion 1 of 2

A number of technical studies have been undertaken as part of the planning and design processes. These have reviewed the impact of new facilities, more passengers and more flights on the local economy and environment. These studies will form the basis of an Environmental Impact Assessment that will be submitted with the planning application.

Past responses to the consultation exercises held have also helped to focus this work.

## Economic impacts

Bristol International Airport has commissioned an Economic Impact Study of the development proposals. The findings show that Bristol International Airport operates in a strong sub-regional economy with low unemployment and high GDP.

### Regional

The growth proposals would create a range of 3,865 – 4,025 additional jobs between 2008 and 2015 in the South West Region. This includes direct, indirect and induced jobs; and is net of all jobs generated by outbound tourism to destinations elsewhere.

In terms of additional income, it would bring a range of £328 – £343 millions in 2015 to the region net of airport construction costs and outbound tourism expenditure. The net present value of this additional income is between £432 and £445 million in 2015.

### Local

On a conservative basis for assessing local impact there would be between 804 and 865 total additional jobs for residents of the West of England by 2015.

Additional annual gross value added for the West of England sub-region would be between £28 and £30 million in 2015.

The majority of local service businesses surveyed have had either no impact or a positive impact from the proximity to the Bristol Airport and their forecasts for the future are even more optimistic. The majority of businesses see the Airport expansion as an opportunity rather than a threat to their business.

## Environmental impacts

### Air quality

Detailed air quality modelling has been prepared as part of the Environmental Impact Assessment. The levels of pollutants are assessed against the Government's 'National Air Quality Objectives'. The most significant pollutants at the airport are nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). Based on field work undertaken within the local community we anticipate that air quality will remain within the National Air Quality Objectives within the area surrounding the Airport. We are currently undertaking assessments to confirm this.



### The following air quality impacts have been considered:

- Potential changes due to increased road traffic on local and airport roads;
- Potential changes due to taxiing aircraft, aircraft at stand and other airside operations.

### What is NO<sub>2</sub> and PM<sub>10</sub>?

Nitrogen dioxide (NO<sub>2</sub>) is an air pollutant which, at high concentrations can damage the health of vulnerable individuals such as people with asthma or other respiratory conditions. The major source of NO<sub>2</sub> in the UK is road transport.

Particulate matter (PM<sub>10</sub>) is classified based on the size of the particulates. Particulates of less than 10 microns (µm) are referred to as PM<sub>10</sub>; PM<sub>10</sub> can be further subdivided into fine particulates smaller than 2.5 µm, referred to as PM<sub>2.5</sub>. Particulate matter of less than 10 µm are of concern as they are likely to be inhaled by humans, with the fine particulate matter of less than 2.5 µm being of the greatest concern. Particulate matter is of concern as it may be linked to increased mortality rates, episodes of hospitalisation and incidence of disease. The main sources of particulate matter are road transport, industrial processes and electricity generation, as well as re-suspended particulates and secondary particulates, principally formed in the atmosphere from the reaction of gaseous emissions.

## Landscape and visual impact

Landscape and visual impacts have been carefully considered during the design and planning process. The options for development have been chosen to minimise detrimental visual and landscape effects.

### The following factors have been considered:

- The need to minimise development on the Broadfield Down ridgeline and consolidate development close to the terminal. The effects of development on the Mendip Hills Area of Outstanding Natural Beauty have been an important consideration.
- The need to limit development in close proximity to the A38 to prevent a perception of encroachment of built development eastwards to Felton Common.
- The need to limit the perceived impact on the openness of the Green Belt.
- The need to limit the impact of additional lighting associated with the proposed developments.

### Examples of how we have worked these considerations into our proposals:

- The height of multi storey car park has been constrained so that its roof is level with the existing terminal forecourt;
- The terminal extension has been designed to deliver a high quality building;
- The new aviation fuel storage depot incorporates underground fuel tanks
- A comprehensive landscape scheme has been developed to screen and soften any major structures and improve biodiversity

## Noise

Noise is a key issue for many local communities and we are therefore carrying out detailed modelling to look at the effects. We are committed to working with our airline partners to ensure that the aircraft operating at Bristol International Airport are the quietest and most modern aircraft available. Looking into the future, they will be quieter still. The noise modelling takes this into account alongside the extra flights and use of larger aircraft to accommodate additional passengers per flight.

### The following impacts have been considered:

- The increase in ATMs, changes to aircraft fleets and noise emissions;
- Potential change in the number of people living within the 57dB LAeq air noise contour (a noise level which, based on research by Government, is used to signify the level of daytime noise marking the onset of 'significant community annoyance');
- The number of households exposed to high levels of air noise (i.e. where the Government would require Bristol International Airport to offer household assistance with the costs of relocating); and
- The number of households 'highly annoyed' by air noise (according to an accepted aircraft noise-annoyance relationship).