

The Master Plan



Foreword by **Peter Duffy**



In this Master Plan we have set out the context for the growth and development of Bournemouth Airport over the next 25 years. We have identified the challenges, the opportunities and the actions that we need to take. It comes at a time of unprecedented growth in passenger numbers and routes. We prepared this Master Plan in response to the Government's Future of Air Transport White Paper and consulted widely on it in the summer and autumn of last year. We are grateful for the comments and suggestions that were made in response to the consultation on the draft and we have made changes to our plan in the light of these responses.

The White Paper, published in 2003, suggests that Bournemouth could grow to between 3 and 4 million passengers per year by 2030. In 2005/2006 we were close to 1 million passengers, so this represents significant growth. The White Paper was drawn up with the impacts of climate change to the fore and it assumes that aviation will increasingly have to meet its external costs if it is to develop. The forecasts of growth and the assessment of the environmental effects were reiterated in a Progress Report into the White Paper that the Government published in December 2006.

Our success is enabling us to connect the region to many European destinations, providing those essential links that a thriving business community and leisure industry demands. We are gaining recognition as a major contributor to the regional economy, through job creation, inbound tourism, and the benefits an airport brings in encouraging inward investment. The majority of our customers are from the immediate conurbation, although increasingly we are seeing people coming from further afield to take advantage of the ease and convenience of using a traveller-friendly regional airport.

During the consultation on the draft Master Plan, we received many expressions of local support and encouragement to develop the airport but also a recognition that the airport has an impact on the local area. We will continue to be proactive; listening to, and working with, our neighbours. We aim to use our success to bring benefits to the region. As we grow we aim to maintain our good relations with the surrounding community by embracing all of the measures leading to sustainable aviation and by encouraging our excellent, and much valued, community relationship.

The Master Plan explains how we plan to accommodate and deliver our vision whilst continuing to upgrade and enhance the facilities for our passengers and customers. Our key objective is to grow the business profitably to maximise the significant social and economic benefits the airport brings to our region. Our Master Plan addresses the implications of this growth, in particular relating to road traffic and the impact of our activities on the sensitive sites of nature conservation importance. In fact, in responding to the consultation we have added considerably more to the Master Plan to address these points. The over-riding themes of our proposals are to minimise our land-take requirements, reuse existing developed land wherever possible and adopt a flexible phased approach to deliver capacity only when required. We believe such a concept embraces the principles of sustainable development.

Our challenge now is to take forward the development of Bournemouth Airport and deliver the economic and social benefits for Dorset and the South West as a whole.

A handwritten signature in black ink, appearing to read 'Peter Duffy', with a large, stylized flourish at the end.

Peter Duffy
Managing Director, Bournemouth Airport

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1. Introduction

1.1 The purpose of the Master Plan

The Future of Air Transport White Paper (The White Paper) was published by Government in 2003 and provides a strategic policy framework for airport development in the UK over the next 30 years. It anticipates by 2030, Bournemouth Airport (BOH) could attract around 4 million passengers per annum (mppa) assuming that one new runway is built in the South East. This compares with 917,000 passengers in 2005/06. The White Paper supports the provision of further terminal capacity within the airport's boundary to accommodate this projected growth, subject to nature conservation impacts being mitigated, improved road access and enhanced bus links from Bournemouth Travel Interchange. In December 2006 the Government reaffirmed its aviation policy in a Progress Report in Parliament.¹

The White Paper recommends that airport operators prepare, and keep up to date, master plans. The Government has published 'Guidance on Airport Master Plans' that explains their purpose as, '... a mechanism for airport operators to explain how they propose to take forward this strategic framework in the form of airport-specific proposals, designed to help inform the regional and local planning processes and facilitate engagement with a wide range of stakeholders.'

The guidance sets out the matters that may be included in the Master Plan: forecasts, infrastructure proposals, safeguarding and land/property take, surface access initiatives, impact on people and the natural environment, and proposals to minimise and mitigate impacts.

The guidance makes clear that where proposals are being brought forward before 2015, the Master Plan should contain more detail than for longer-term proposals, in order to retain flexibility. It also proposes that master plans are updated at regular intervals to ensure that they continue to reflect revisions to regional and local plans, the continuing evolution of airport development proposals and other relevant issues. The guidance note proposes that this take place at roughly five yearly intervals.

In terms of the appropriate level of detail, the guidance suggests that, 'The plans are not expected to take the form of detailed engineering or architectural drawings such as those that might accompany a planning application, but to be of value they ought to contain sufficient information, including drawings where appropriate, so that they may be clearly understood by laymen as well as professionals.'

This Master Plan is Bournemouth's response to the White Paper. It describes our development proposals in the context of forecasts of growth and analysis of those parts of the airport site where change is needed. It also addresses the implications of this planned growth including the positive economic and social benefits and the potentially negative impacts, for which we have set out mitigation measures.

¹ The Future of Air Transport Progress Report, Department for Transport, December 2006

1.2 The structure of the Master Plan

The scale and impact of the changes proposed at Bournemouth are relatively modest in comparison with many other airports. Nevertheless, growth will bring significant social and economic benefits to the area along with environmental impacts that need to be sensitively managed. We have endeavoured, therefore, to set out in a clear, succinct and open manner the policy context for the planned growth, forecasts of growth, our proposals, our assessment of the possible impacts of the planned growth and any necessary mitigation measures.

In preparing this Master Plan we have used a number of specialist consultants to assist us with the design of our planned new facilities, planning policy, traffic and transport, noise and air quality.

The Master Plan is reflective of the Statement of Intent issued to local authorities in 2005, which set out the intended approach for the long-term development of the airport and of the results of the consultation process undertaken on the draft Master Plan in summer 2006

The commercial activities at the airport are split into two sectors, broadly north and south of the main runway. The two sectors' development and growth will complement each other, given the synergies that exist between the aviation-related uses found on both sites. This Master Plan relates to the operational area of the airport, also referred to as the southern sector. There is a separate Master Planning process for the business park or northern sector, setting out a commercial development programme for this sector. For a complete picture of the airport as a whole, this Master Plan should be read in conjunction with the emerging Master Plan for the northern sector. Both Master Plans will form important evidence sources for the Bournemouth Airport Action Area Plan, preparation of which is being led by Christchurch Borough Council.

1.3 Consultation Statement

How did we consult?

The airport conducted a 12 week consultation programme with stakeholders and local residents from July to October 2006. We welcome all of the comments that have been made.

Six key questions were asked to guide respondents:

1. Do you agree with the suggested policy approach as set out in Chapter 3 of the master plan?
2. What issues and challenges do you think face Bournemouth Airport and which of these do you regard as most important to resolve?

3. Do you have comments on the expectations of future traffic growth?
4. Do you have comments on the management of the nearby sites designated for nature conservation?
5. For the period to 2015, are there any facilities you would like developed at Bournemouth Airport?
6. Do you agree with Bournemouth Airport's proposals beyond 2015?

To capture as wide a range of feedback as practicable, the draft Master Plan was:

- Issued to the Bournemouth Airport Consultative Committee, which comprises local and county authorities, Bournemouth, Christchurch and Ringwood chambers of trade, the Dorset Federation of Residents' Association and the Association of British Travel Agents;
- Sent to 65 consultees, listed in Appendix 1, including local authorities, the Department for Transport, the Civil Aviation Authority, English Nature, the Government Office for the South West, local parish councils and Members of Parliament. This is broadly in line with the statutory consultees adopted for the Bournemouth Airport Area Action Plan consultation carried out by Christchurch Borough Council;
- Published on the airport's website (www.bournemouthairport.com);
- Exhibited at Christchurch and Bournemouth libraries and council offices to facilitate feedback from the general public.

Response to the Master Plan

In general, the response to the master plan is favourable, with consultees welcoming the opportunity to have input at an early stage and many acknowledging the importance of the proposals for the region's transport infrastructure and economic growth.

Respondents included:

- National and regional authorities;
- Local authorities;
- Parish councils;
- Business interests;
- Local residents and residents' associations;
- Environmental groups.

We have amended the Master Plan in the light of comments made particularly in the following areas:

- Improved public transport connections, travel planning, upgrades to the local road network and other surface access improvements;
- Managing environmental impacts and climate change, and;
- Commitments to the monitoring and management of noise and air quality.

Follow up

Through the work of the Airport Consultative Committee, the airport management and owner, Manchester Airport Group, will continue to listen to and work with local residents, organisations and key stakeholders to maintain good relations with the surrounding community.

2. Bournemouth Airport

2.1 History of the airport

Bournemouth Airport was originally built during World War II to provide an operating base for the RAF. Shortly before the end of the war it was converted into a municipal airport and the Government designated it as the intercontinental airport for the UK. By 1945, long haul routes were being flown to North and South America, Africa and Australasia. In 1951 the Vickers Aircraft Company established a production facility at the site, which at its peak became a major employment site for the area, employing over 6,000 people.

The airport was incorporated under the Airports Act in 1986 and was owned by Bournemouth Borough Council (BBC) and Dorset County Council (DCC). It passed into private ownership in April 1995 and in 2001 was acquired by Manchester Airport plc, joining Humberside and East Midlands Airports as part of the Regional Airports Division of Manchester Airports Group.

2.2 Business today

We are currently one of the UK's fastest growing airports. The airport's passenger throughput increased from 271,000 in 2000 to 495,000 in 2004 and 917,000 in 2005/6. The rapid growth has resulted from the introduction of further routes by low-cost operators boosting the thriving charter market. These routes would previously only have been available by travelling out of the region. The airport now serves both business and leisure passengers and currently offers access to more than 65 destinations directly through 30 different operators.

Table 2.1 shows the structure of passenger traffic at Bournemouth International Airport in 2005, in terms of the total number of passengers on scheduled and charter and international and domestic services. International services accounted for around 84% of the passengers handled by BOH in 2005. This is above the average proportion of international traffic compared to all UK airports (78%) and UK regional airports (63%).

	Scheduled	Charter	Total
Western Europe	63%	20.0%	83.3%
Other Destinations	0.0%	0.9%	0.9%
Total International	63.3%	20.9%	84.2%
Channel Islands	0.0%	0.4%	0.4%
Other Domestic	15.3%	0.1%	15.4%
Total Domestic	15.3%	0.5%	15.8%
Total	78.6%	21.4%	100.0%

Source: Civil Aviation Authority

Table 2.1 The structure of passenger traffic at Bournemouth International Airport in 2005

Scheduled services account for nearly 80% of the passengers handled at BOH in 2005, which is below the average for all UK airports (85%) but above the average when compared against other regional airports (75%). This reflects the strong growth of low fares airlines at BOH.

In 2005, there were 83,000 aircraft movements (a movement is a landing or a take-off). Passenger air transport movements make up a relatively small proportion of total aircraft movements; however, they are the focus of the Airports White Paper and this Master Plan.

Table 2.2 illustrates aircraft movements in further detail.

Movement type	Number
Light aero club	49,980
Air taxis, private and business aviation	13,000
Military/Maintenance	3,780
Cargo/Mail	3,240
Passenger air transport	13,000
Total	83,000

Table 2.2: Aircraft movements

2.3 Location and catchment area

Bournemouth Airport lies within the South East Dorset conurbation, on low-lying land between the Stour and Moors Rivers. The conurbation, which includes the towns of Bournemouth, Christchurch and Poole, has a population of approximately 345,100. Southampton, Portsmouth, Winchester, Salisbury, Dorchester and Weymouth are all within an hour's drive of the airport.

The nearest settlements are the village of Hurn a mile to the south-east and the larger suburban development of West Parley, two miles to the west. There are a number of dispersed farms, businesses and other dwellings closer to the airport.

At a strategic level, road access is very good. The airport lies 7km to the north of Bournemouth town centre, 5km to the north-west of Christchurch town centre and 2km to the west of the A338 Ringwood to Bournemouth spur road, a dual carriageway that joins the A31 trunk road at the Ashley Heath interchange. The A338 also provides good road access across the heart of the conurbation and to the rail, bus and coach interchange at Bournemouth Travel Interchange.

At the local level, the B3073 Parley Lane connects the airport to the local primary route network and runs along the southern perimeter providing links to both sectors of the airport. To the west, the B3073 joins the A347 and A348, which form the principal links from the airport to Poole. Matchams Lane passes to the east of the airport and provides limited access to the eastern half of the northern sector.

Around half of all departing passengers reside in the Bournemouth and Poole area. Figure 2.1 demonstrates the results of a passenger origin survey carried out by both the CAA and the airport's marketing team in 2005, that clearly illustrates this point. Passengers from Southampton, Salisbury, Dorchester, Portsmouth and Basingstoke also make up a significant proportion of total travellers. The airport has recently witnessed a rise in passengers from outside the immediate catchment area, most of which travel on easyJet, Ryanair and Thomsonfly flights.

The vast majority of passengers (approximately 80%) travel to the airport by private car. Approximately a quarter of these passengers park their car at the airport whilst the majority are 'dropped off'. Around 2% of passengers travel by bus.

2.4 The airport site and surrounding area

The total area of the airport site (i.e. north & south sectors) is approximately 366 hectares. Sixty seven hectares are designated as areas of nature conservation interest.

Land at the airport falls broadly into three swathes; see figure 2.2. The north of the airport comprises an area of heath and river corridor, most of which has Site of Special Scientific Interest (SSSI) status. The heath is also identified as a Special Protection Area (SPA) in recognition of its international value as habitat for supporting rare birdlife.

South of this heathland is the northern sector, an area of industrial and commercial development, split by a disused runway into north-west and north-east sectors. Most of the employment is concentrated in the north-west sector. The north-east sector is the focus of the airport's aviation maintenance operations and also contains a local flying club. A Master Plan is being developed that sets out a strategy for the future development of the northern sector.

In 2003, a draft Master Plan was drawn up for the northern sector by EDAW. This was presented to local authority partners but has never been formally published. The plan recommended major B1 and B2/8 development in the western sector and major B1 development in the east together with major new highway infrastructure linking to the A338 in the east. Feasibility work underpinning the report identified that the proposals identified were not commercially viable, largely due to the costs of infrastructure provision.

Work to reassess and review the development opportunities on the northern sector is underway, with the objective of bringing the strategy up to date to reflect the current market and policy opportunities and challenges. Through the consultation on the Master Plan for the airport, it is clear that the development of synergies between the northern and southern sectors to deliver benefits to both is an aspiration of many respondents.

The southern sector, also referred to in this document as the operational airport, includes the terminal buildings but primarily consists of the airfield itself, an extensive open area crossed by the runway, taxiways and an abandoned runway. This Master Plan relates to the future development of this sector, although the clear synergies between development of the operational airport and the future development of the northern sector will be highlighted.

The main operational airport activities are located at the eastern end of the southern sector and include: the passenger terminal, car parks and administrative offices; see figure 2.3. A number of commercial activities, some aviation related e.g. the aviation museum, are also accommodated in this area. Immediately adjacent to the airport's terminal building at the entrance to the site is the NATS air traffic control training centre.

The airport has one runway, which is 2,271 metres in length. While the typical passenger aircraft in use at the airport are Code C sized e.g. Boeing 737 and Airbus A320/321, the runway is capable of handling the larger Code D and E sized aircraft e.g. Boeing 747, 757, 767, 777 and Airbus A330/340 aircraft.

The operational airport's apron area consists of aircraft stands and taxiways. Taxiways connect the runway to the aircraft parking stands. The operational airport has four contact stands adjacent to the terminal (taxi-in/push-out), five remote stands (three taxi-in/push-out & two tail-in/taxi-out) and two self manoeuvre stands for smaller aircraft.

2.5 Employment

The majority of the employment at the airport is concentrated in the northern sector, which contains most of the industrial activity. Future employment growth in this sector was considered in the EDAW Master Plan and is being reassessed in current work. Passenger processing, freight handling and air traffic control training are concentrated in the southern sector although some support services are also found in the northern sector.

The airport as a whole provides a wide range of aviation services including aircraft manufacture, maintenance and refitting, the design, production and supply of avionics systems and instruments, defence contract work, pilot tuition and air traffic control training. Much of the employment is of a highly skilled nature.

It also accommodates a wide range of non-aviation related activities, including the sale and repair of motor vehicles, grain storage and furniture manufacture.

In 2005, there were around 2,700 people employed by companies based at the airport site as a whole. However, only a relatively small number of these are involved in the day to day operation of the airport; approximately 17.5%, some 480 people, which equates to 380 full time equivalents. At present, employment is dominated by the airport company (36%). This is common amongst smaller airports where the airport company often provides a range of services that are outsourced to other organisations at larger sites. The next largest sector is airlines and handling agents (22%). In other European airports this is usually the largest sector, but the mix reflects Bournemouth's current status as predominately a low cost airline spoke with relatively few staff based on site. Following the launch of Thomsonfly in March 2005, this percentage will have increased with the creation of in excess of 70 full time jobs.

Following employment surveys, we estimate that around 82% of those employed in operational roles at the airport are resident within Dorset with Bournemouth itself being the most common residence; 24% of employees. Table 2.3 shows our estimate of the distribution of the on-site jobs by place of residence. It is interesting to note that a substantial number of employees live outside the South West region. We estimate that, in 2005, the 380 full time equivalent jobs generated an income of £9.6 million in the county of Dorset.

Indirect employment and income is generated in the chain of supplies and goods and services to the direct (on and off-site) activities. The estimates of indirect employment and income have been derived from the survey of the companies located at BOH undertaken in 2005. On this basis, we estimate that BOH supported around 120 full time equivalent indirect jobs in the county of Dorset, which in turn generated indirect income of around £2.5 million in the county. Induced employment and income is generated by the spending of the direct (on and off-site) and indirect incomes. The estimates of induced employment and income have been derived from a survey of companies located at BOH undertaken in 2005 and from assumptions regarding the operation of the Dorset and South West economies. On this basis, we estimate that BOH supported around 180 full time equivalent induced jobs in the county of Dorset and generated induced income of around £3.9 million for the county.

Tourism is a major sector within the sub-region as recognised in the Regional Economic Strategy. It is estimated that there were 4.5 million visitors to the sub-region in 2004, the majority of whom were domestic visitors. There were 318,000 overseas visitors to Dorset and whilst the airport only handled 50,000 of these, the potential to develop these numbers is enhanced considerably through the expansion of destinations served by the airport.

The expansion of international destinations can also assist with company location decisions. Having an international airport is often on the 'shopping list' for potential inward investors as they examine regions in which to locate. Growth at the airport ensures that this requirement can be fulfilled and that the sub-region is not immediately removed from consideration.

Area	Number	Per cent
Bournemouth	90	24.4%
Poole	40	11.4%
Christchurch	40	11.1%
Rest of Dorset	140	35.6%
Dorset	320	82.4%
Elsewhere in South West	10	3.1%
South West Region	330	85.5%
Hampshire	50	12.3%
Elsewhere in South East	10	1.6%
Elsewhere in UK	0	0.6%
Total	380	100.0%

Note: All employment estimates have been rounded to the nearest 10 jobs. Columns may not sum due to rounding
Source: York Aviation LLP

Table 2.3 Distribution of on-site employees by place of residence (full time equivalents)

2.6 Passenger terminal facilities

The operational airport's existing passenger terminal comprises two principal structures; see figure 2.3.

Firstly, the main terminal building consists of a one and two storey structure housing both landside and airside functions, including check-in area, departure lounges, information desk, cafe, restaurant, shops, offices and meeting rooms. When this building was erected in the early 1980s, it was intended that it would be the first phase of a new terminal.

Secondly, a series of older, linked, single storey prefabricated structures house airside functions, including security, customs and passport control, departure lounges, duty-free shopping, an arrivals hall with baggage reclaim and accommodation for 'meeters and greeters'.

Much has been done to improve the day-to-day running of the terminal in recent years. Recently the restaurant housed within the 1980s building has been transferred from landside to airside and connected to the departure lounges. This has provided much improved facilities

for departing passengers and enables them to move quickly from check-in to the departure lounges. Despite such improvements, which have maximised the efficiency of the available footprint, the building has some fundamental limitations that will inhibit future growth and cannot be remedied. In particular, the airside arrivals accommodation is relatively small, inflexible and at the end of its life.

Changing passenger needs, increased security measures and a growing business combine to require major improvements to facilities.

2.7 Aircraft maintenance

Aircraft maintenance is an area of significant economic activity at the airport. BASCO has hangarage in the northern sector that can accommodate up to seven narrow-bodied aircraft for routine maintenance and upgrades.

FR Aviation, part of the Cobham Group, offers aircraft maintenance services including design, engineering support and technical services. European Air Charter maintains a fleet of aircraft and other operators provide support to general aviation. All of these activities are undertaken in the northern sector, require access to the operational airfield and are typical examples of the synergies between the two sites as referred to in paragraph 1.2.

2.8 Cargo

Cargo operations are located in the southern sector and handled 11,600 tonnes of cargo in 2005, principally mail, newspapers and magazines. Jet2.Com operate from the cargo hangar located to the south-west of the main terminal; see figure 2.3. Cargo aircraft make use of the remote stands.

This Master Plan does not contain any specific proposals for the growth of cargo traffic. It is anticipated that the current throughput will be at least maintained.

2.9 Car parking

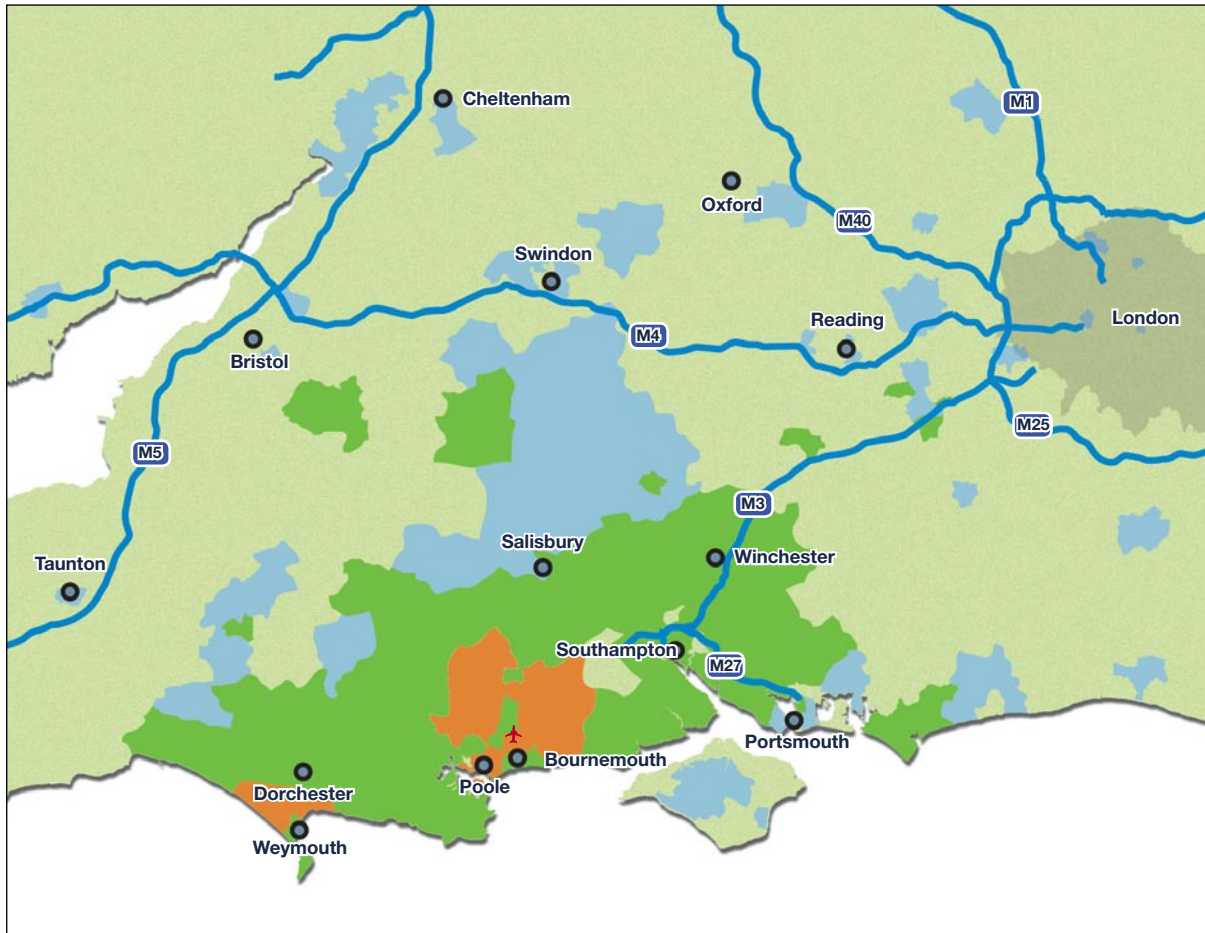
There are three passenger car parks within the southern sector with space for approximately 2,177 cars; see figure 2.3. An additional 139 spaces are available for staff parking. During the 2005 peak summer period 22% of the passengers parked in a car park and 59% were 'dropped off'. 15% made use of rental cars, 2% taxis and 2% used the bus. The predominance of drop off traffic and its associated trip generation (double the trips associated with onsite parking) is an area of concern and changing behaviour to reduce road traffic is a key theme of our surface access strategy.

Car parks 1 and 2 are suitable for short and long stays and are a few minutes walk from the terminal building. Car park 1 is located immediately in front of the terminal and has dedicated disabled parking spaces adjacent to the pedestrian access route to the terminal. Car park 2 is situated just north of the terminal and includes an area of overflow parking, which is made available during the busy summer periods. Car park 3 is closest to the terminal and is primarily used for collecting arriving passengers. Table 2.2 shows the number of parking spaces by car park.




Car Park	Spaces
1	1414
2	708
3	55
Total	2177

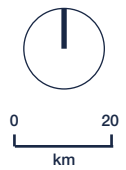
Table 2.4 Car parking provision

Figure 2.1: Passengers' point of origin



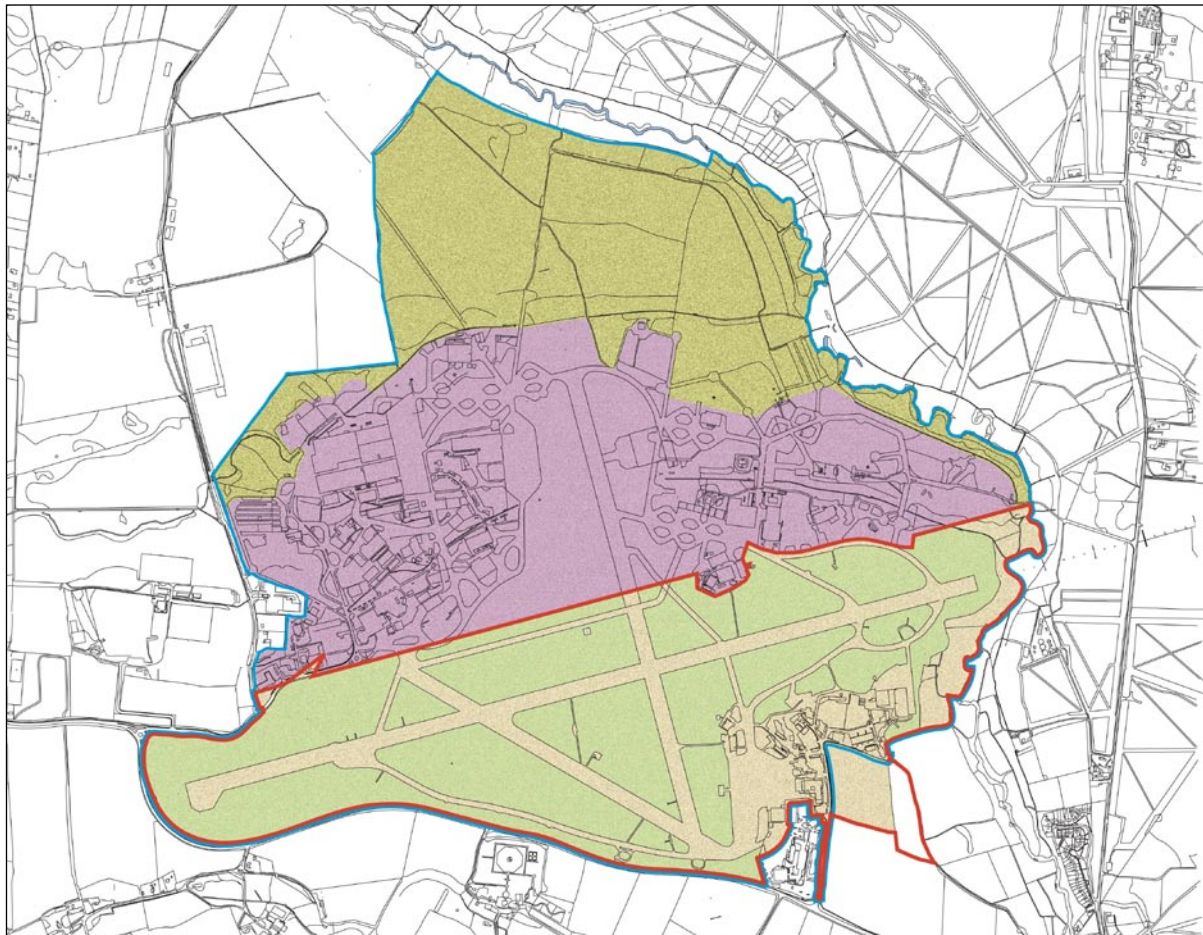
 Bournemouth airport





-  High number of passengers originating from area
-  Moderate number of passengers originating from area
-  Low number of passengers originating from area



Data taken from CAA passenger survey 2005. Areas are defined by the 1st half of a passenger's postcode e.g. BH1

Figure 2.2: The airport's existing key sectors

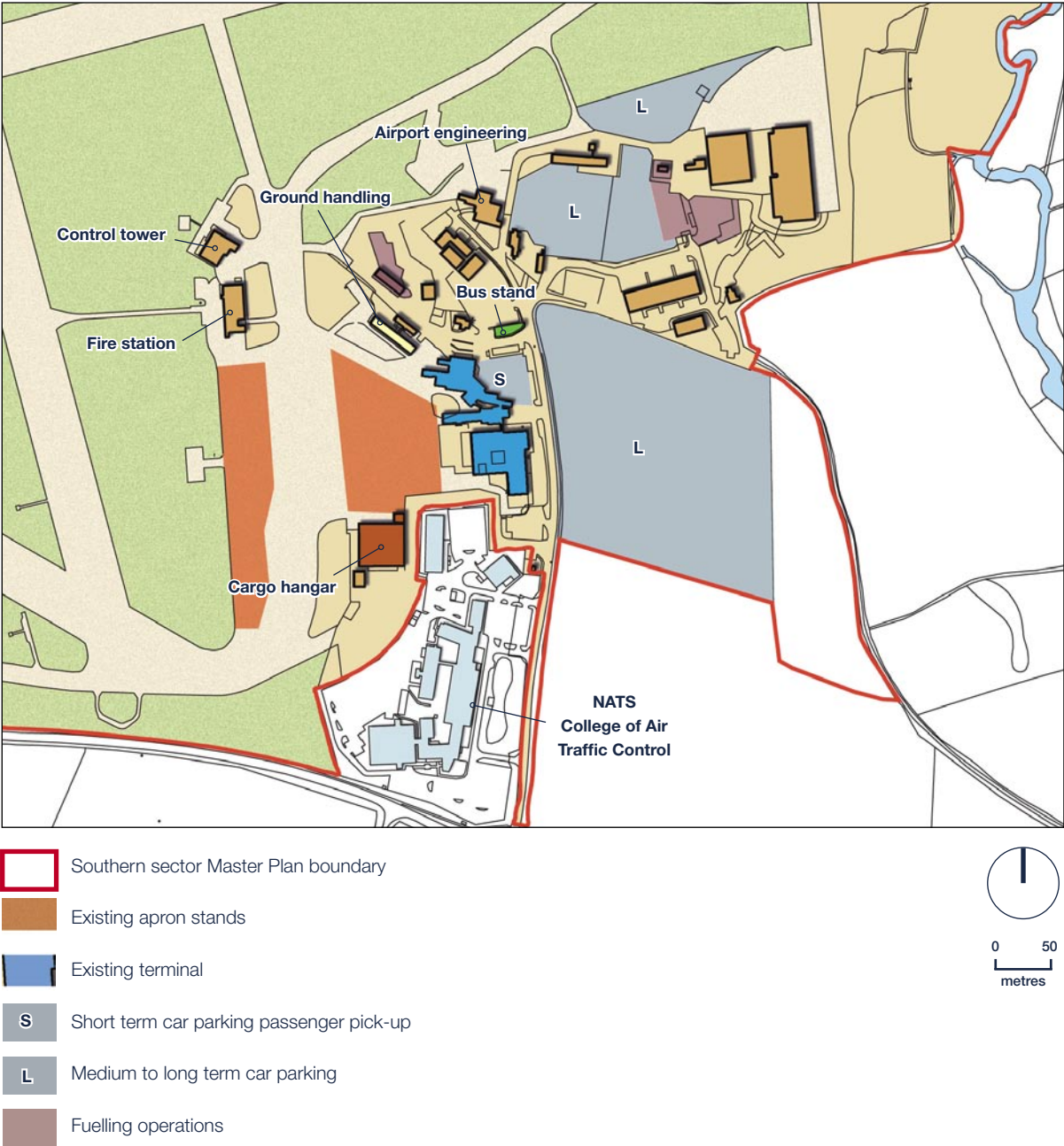


-  Southern sector Master Plan boundary
-  Manchester Airport Group's ownership
-  Heathland (protected habitat)
-  Northern sector Master Plan area



0 200
metres

Figure 2.3: Existing operational airport land uses in the southern sector



3. Policy Context

3.1 National policy

Transport

National aviation policy is set out in the Air Transport White Paper (the White Paper) December 2003 and the Future of Transport: a network for 2030 White Paper, July 2004. The White Paper supports the further growth of Bournemouth Airport and highlights the likely requirements for improvements to road access to serve the airport and its business park alongside further enhancements to bus links from Bournemouth Travel Interchange and a need to mitigate against any effects on adjoining ecologically sensitive sites

It is important to note that the White Paper was prepared with the issue of climate change to the fore and that the forecasts and growth projections emerging from it were constrained as a result. The projections that emerged were subject to environmental taxation sensitivity tests and the Government reiterated its commitment that the aviation industry should cover its environmental and external costs. Whilst not specifying the measures to recover these costs, it does say that these may include the taxation of aviation fuel and trading schemes. The White Paper represents a balanced approach to providing additional capacity at the UK's airports reflecting both the costs and benefits of air travel.

The White Paper fully explored the contribution of the aviation sector to the economy of the country. Whether it be through a measure of the value of exports by air, the attraction of good air links to business, the value of the tourism sector or the direct contribution of the aviation industry to the economy, growth in the aviation sector is seen to be vital to the economic well-being of the country.

The stated position of the White Paper was repeated in The Future of Transport White Paper, again explaining that the conclusions of the Aviation White Paper were fully cognisant of the climate change issue.

The Government has recently reaffirmed its policy stance towards aviation in The Future of Air Transport Progress Report published in December 2006. In delivering the Report to Parliament, the Secretary of State said that it 'confirms the detailed strategy set out in 2003 for the sustainable development of air travel to 2030, balancing the growth aspirations to travel and the economic benefits that it brings with the need to protect the environment. The Progress Report confirms our earlier assessment that demand for air travel will continue to grow strongly.' In line with the conclusions of Sir Rod Eddington's recent study on transport infrastructure, it acknowledges the benefits that 'meeting this demand brings to business and individuals across the UK.'

The planning policy framework – a changing system

Our Master Plan has been prepared at a time when the planning system is in a stage of transition. The provisions of the Planning and Compulsory Purchase Act 2004 modify the English planning system at national, regional and local policy and procedural levels. At the national level the Government is publishing a new set of national planning policy statements. Planning Policy Statements will eventually replace Planning Policy Guidance Notes (PPGs). Further changes will no doubt begin to emerge following the publication of three key reports:

- The Stern Report on the economics of climate change and development, October 2006;
- The Eddington Report on the long-term links between transport and the UK's economic productivity, growth and stability in line with the Government's broader commitment to sustainable development, December 2006; and,
- The Barker Report, December 2006, an independent review of land use planning focusing on the link between planning and economic growth.

This Master Plan reflects emerging thinking as represented in those reports.

The Master Plan also takes full account of existing national planning policies regarding:

- Delivering Sustainable Development (PPS 1);
- Transport (PPG 13);
- Green belts (PPG 2);
- Planning and Noise (PPG 24);
- Biodiversity and Geological Conservation (PPS 9);
- Planning for Sustainable Waste Management (PPS 10);
- Planning and Pollution Control (PPG23);
- Development and Flood Risk (PPG 25).

3.2 Regional planning policy

South West Plan

Regional Planning Guidance for the South West (RPG10) was published in 2001, but is now being replaced by a Regional Spatial Strategy (RSS) in accordance with the provisions of the Planning and Compulsory Purchase Act 2004. A draft of the RSS was published and consulted on and the Examination in Public commenced in Spring 2007. The RSS will set a long-term regional framework for development from 2006-2026.

The draft RSS builds on the provisions of the White Paper with the aim of meeting more of the South West's demand for air services within the region, to reduce surface travel to airports outside the region and congestion on the M4 corridor. Policy 12 stipulates that this need

will be met by using spare capacity and developing existing airports in the region, especially Bristol, Exeter and Bournemouth. This Master Plan illustrates how Bournemouth Airport can be developed to meet the objectives of the emerging RSS.

3.3 Local planning policy

The Planning and Compulsory Purchase Act 2004 introduces local development frameworks (LDFs), which will eventually replace local plans. Structure plans will be phased out. The airport is located within the administrative area of Christchurch in the county of Dorset. The Borough of Christchurch is at the early stages of preparing its LDF under the new system. Therefore, the relevant development plan documents at this time are:

- The Bournemouth, Dorset and Poole Structure Plan, adopted 2000
- The Borough of Christchurch Local Plan, adopted 2001.

Bournemouth, Dorset and Poole Structure Plan

The structure plan provides a framework for local planning and ensures that provisions for development are realistic and consistent with national and regional policy. The adopted structure plan identifies:

- That Bournemouth Airport is the only significant commercial airport in Dorset;
- That it is a major growth area for employment (80ha in the northern sector is defined as industrial/business uses);
- Expresses strong support for the improvement of existing facilities, particularly the provision of a new replacement terminal building;
- That the site is washed over by green belt (excluding northern sectors);
- Further implications of this are considered in chapter 5.

Within the green belt, there is a national presumption against inappropriate development. Such development may only be allowed if exceptional circumstances can be demonstrated. Operational developments at Bournemouth (and other UK airports in the green belt) have been able to demonstrate exceptional circumstances.

A replacement structure plan was started. However, following advice from the Government, it was not progressed in favour of developing the new RSS strategic policy framework.

Borough of Christchurch Local Plan

In contrast with regional and structure plan policy, the current local plan makes no specific policy provision for the improvement of facilities at the airport. The council considers that a

comprehensive strategy is needed to deliver the true potential of the airport as a whole. Our Master Plan, together with that prepared for the northern sector contributes to this objective. We anticipate that, by working closely with Christchurch Council, both Master Plans can form an invaluable part of the evidence base for the Airport Area Action Plan.

The local plan details the green belt boundary established by the structure plan. Previously in drawing up the local plan, there was a move to remove the operational airport site from the green belt in the same way that the northern sector has been. However, it was deemed that there were not sufficient grounds to amend the green belt boundary, which guidance states should be altered only in exceptional circumstances. The government's support for growth at Bournemouth Airport in the White Paper was in full knowledge of its green belt location.

Local transport policy

Each county and unitary authority is required to produce a local transport plan (LTP) to demonstrate the authorities transport priorities for the next five years. The adopted Bournemouth, Poole and Dorset LTP covers the period 2006-2011.

The transport plan recognises that a particular feature of the airport site is the heavy reliance on the car for commuting to employment areas. The specialist nature of the employment means that workers are drawn from a wide area. The LTP makes strong reference to developing the operational airport's surface access strategy (SAS) in which the key action areas include:

- Delivering improved transport choices to and from the airport's terminal;
- Reducing private car use by employees and passengers.

The current SAS is in the process of being revised through consultation with the Airport Transport Forum and supported by a detailed transport assessment undertaken in connection with the proposals presented in this Master Plan. The revised SAS and this Master Plan will provide sufficient detail to enable future revisions of the LTP to accommodate the surface access needs of the operational airport.

New Forest National Park

The New Forest National Park came into existence in March 2005 and the park authority took up its powers in April 2007. The airport does not fall within the boundary of the National Park though flight paths cross over it. We expect to work closely with the National Park Authority in the future.

3.4 Land use

Public Safety Zones

Public Safety Zones are at either end of the runway and are defined by the Civil Aviation Division of the Department for Transport (DfT). They are a planning policy tool to control development in the specified risk contour areas. The types and level of development affected are set out in DfT Circular 1/2002. The aim of the policy is to restrict development in order to control the number of people on the ground within the risk contour area.

Aerodrome safeguarding

Safeguarding is required to ensure that development outside of the operational airport does not adversely affect its safe operation. The safeguarding process is set out in Circular 1/2003. It involves the local planning authority consulting on any planning applications that may impact on operational safety. Principal developments of concern are those that would:

- Create obstacles to flight paths e.g. masts, tall buildings;
- Produce light that may interfere with runway approach lights e.g. adverts;
- Interfere with the radar or other navigational aids e.g. windfarms; and,
- Attract birds, increasing the risk of bird strike e.g. lakes, refuse tips and quarries.

Safeguarding maps provided to local authorities specify the areas within which applications may have safeguarding implications. It is not anticipated that the proposals contained in this Master Plan will alter the geographical extent of the maps currently in force.

Noise

Planning Policy Guidance Note 24 'Planning and Noise' states 'when assessing a proposal for residential development near a source of noise, local planning authorities should determine into which of the four noise exposure categories (NECs) the proposed site falls, taking account of both day and night-time noise levels.' The noise levels defined in the above categories are defined in paragraph 6.3.

Flooding

The airport lies adjacent to the Moors River flood plain. In line with the requirements of PPS25 'Development and Flood Risk' and the Christchurch Local Plan, developments at the airport should be subject to a flood risk assessment to ensure that areas downstream are not subject to a greater risk of flooding due to increased surface water run-off.

4. Forecasts

4.1 Introduction

Airports are widely recognised as bringing major social and economic benefits to the surrounding regions. These impacts go beyond the direct effect of their operation on local employment to the wider benefits that air service accessibility brings to regional business interests and consumers, e.g. inbound tourism.

Bournemouth Airport provides essential infrastructure to support regional economic growth as well as being a commercial entity in its own right. The airport supports employment directly in the southern and northern sectors and also indirectly in the chain of suppliers providing goods and services.

Benefits of growth

Bournemouth Airport is a vital infrastructure facility in an increasingly global society. Access to national and international markets and transport links are essential for businesses in making location decisions. Airports with good connectivity can act as a powerful magnet for companies. Bournemouth has thriving 'air intensive' financial, business, educational and tourism services sectors, which are somewhat dependent upon air service accessibility. The growth of the airport throughout the Master Plan period will enhance the growth potential of the region, which will increase the demand for air travel.

Air transport provides accessibility to the global economy and enables regions outside of London to participate more competitively in the global market place. The trend towards the globalisation of companies creates a demand for an ever-widening network of air services at key regional airports and the South East Dorset conurbation is no exception. As such, the 'value added' from the future growth of Bournemouth Airport will be an important factor in attracting new inward investment from outside the area, retaining existing companies and facilitating their expansion.

Whilst the economic benefits that accrue from a strong and growing airport are very significant, the services provided by the airport also fulfil an important social function. They enable good and affordable access to a multitude of destinations in the UK and overseas for local residents visiting colleagues, family and friends and reduce the need to travel outside of the region to access air travel.

The operational airport can play an expanding role in making inbound tourism possible, providing a gateway to the New Forest National Park, the Jurassic Coast world heritage site and the area's many beaches. Tourism is an important sector of the local and regional economy. The advent of 'no frills' airlines such as easyJet, Ryanair and Thomsonfly is particularly stimulating the development of new tourism markets across Europe, based around short breaks and flexible low-cost travel arrangements. Access to holiday travel is an important quality of life indicator and the future growth of the airport will enhance this social benefit.

Above all, the most important contribution of a growing and maturing airport will be the enhanced connectivity it will provide, an essential component of modern life. A more accessible South East Dorset conurbation will bring many benefits including attracting new employees, students to the area's language schools and tourists. Avoiding the need to travel to London airports to access international destinations also avoids the need for considerable amounts of surface traffic to leave the region.

The following sections sets out the forecasts showing how the operational airport is predicted to grow over the Master Plan period.

4.2 Passenger forecasts

The White Paper anticipates that by 2030 Bournemouth Airport could attract around 3 mppa if two new runways are built in the South East, rising to 4 mppa should only one be built. We have prepared our passenger forecasts based on the assumptions used by the Department for Transport in the White Paper but have also allowed for the more recent changes that have taken place at the airport due to the influence of the 'no frills' sector. Our projections are shown in table 4.1.

Year	Passengers
2005/06	932,000
2009/10	1,800,000
2014/15	3,000,000
2029/30	4,500,000

Table 4.1: Passenger forecasts

4.3 Aircraft movement forecasts

In terms of aircraft movements, we do not expect general aviation or freight activity to increase significantly. It is anticipated that aircraft maintenance activities at the airport will grow but the level of associated movements is unlikely to exceed two or three a week. Our forecasts of passenger aircraft transport movements (ATMs) are shown in table 4.2. The current fleet mix is Boeing 737-300s, Boeing 737-800s, Airbus 321s or similar but is likely to change over time.

Year	ATMs
2005/06	13,000
2009/10	18,000
2014/15	27,000
2029/30	39,000

Table 4.2: ATM forecasts

4.4 Employment forecasts

When forecasting employment growth that may be generated by the proposals, it is necessary to consider four employment categories:

- Direct: employment directly related to the operational airport;
- Indirect: employment resulting from the local chain of suppliers to firms directly involved in the airport's operation;
- Induced: employment arising locally through the personal expenditure of those employed either directly or indirectly;
- Catalytic: employment created by opportunities for influencing business location decisions and attracting inbound tourism, both business and leisure, to the region.

Table 4.3 summarises current and forecast levels for the operational airport related employment and excludes any aircraft maintenance related employment in the northern sector.

Year	Direct	Indirect	Induced	Total
2005	380	120	180	680
2015	740	240	270	1360
2030	940	270	430	1650

Table 4.3 Employment forecasts (full time equivalents)

Growth in traffic at the airport will be one of the catalysts to stimulate and attract investment and hence employment growth in the northern sector.

5. Proposals

5.1 Introduction

Government guidance on the preparation of airport master plans asks airports to set out comprehensive proposals for the period to 2015 and in less detail for the period 2015 – 2030. Our future strategy is to grow in a sustainable way to meet the needs of business and residents. We expect to meet the forecasts of growth for Bournemouth set out in Chapter 4. To achieve these, a number of physical changes will be needed in the southern sector in both of these periods.

We have established a number of key objectives to guide our growth, whilst at all times maintaining high levels of security, safety, quality and service to our customers:

- Our growth will be underpinned by a commitment to sustainable development;
- We will make the best use of existing infrastructure in line with Government guidance and minimise the use of non renewable resources;
- We will only implement physical changes to accommodate clear evidence of demand;
- We will continue to work with the relevant highways and planning authorities to ensure that the impacts of our growth on the highways network and on local communities can be properly managed;
- We will incorporate new and evolving technologies and energy efficient measures in new building design;
- We will continue to and look to extend our proactive environmental management of sensitive ecological areas.

We do not need additional land in order to meet the Government's aspirations for Bournemouth Airport, as set out in the White Paper. All of our physical changes can be accommodated within land in our direct ownership or currently under lease. The only related off-site works needed relate to improvements to the highways network and to the wastewater drainage system that serves the airport. The operational airport is characterised by a large tract of open land containing the runway and taxiways and a relatively small concentration of built development around the terminal building.

Operational development at Bournemouth Airport has had to demonstrate exceptional circumstances to allow it in its green belt setting. The approximate area of land within the Master Plan boundary is 1,487,000 sq.m. of which operational pavement, access infrastructure and buildings equate to 32% of the total area. Physical buildings only actually consist of 1.3% of the total area. This helps to retain the openness which is a key feature of green belt. Civil airports in the UK have a low ratio of buildings to open land and can actually act as a buffer to the sprawl of urban areas.

5.2 Policy approach

Previous sections have set out the forecast growth of the operational airport and have described the policy context within which that growth is to take place. The land on which the operational airport is sited is in the green belt. Development within the greenbelt is strictly controlled and inappropriate development is not allowed unless exceptional circumstances can be demonstrated. Christchurch Borough Council is to prepare an Airport Action Area Plan to provide a planning framework for the implementation of aviation and employment development across the whole airport site and for the sustainable growth of the operational airport. Consultation has already taken place on an initial issues and options paper which set out the background to planning policies for the airport site, a vision and objectives for the site and related issues and options for the development of both the operational airport and the northern development sector. The airport's position within the green belt was an issue that was recognised as requiring to be addressed given the inherent tension between the green belt designation and new development needed to deliver national policy.

As part of our response to the issues and options, we recommended the designation of an airport operational area within which operational airport development would be contained. It would prove a useful means of restricting and redirecting uses inappropriate to the operational requirements of the airport whilst at the same time allowing for the growth of the airport in line with government policy. In proposing an operational area, we have taken account of the green belt allocation and the need to make the most efficient use of land within the operational area. Green belt policies will continue to restrict the kind of 'honey pot' developments that may be attracted to locating close to the airport and the operational area policy approach will restrict the types of uses at the operational airport. The operational area boundary should be defined through the Airport Action Plan process and the list of appropriate uses also defined. Such a policy approach has proved successful in the guiding and controlling of development at other airports in the UK that are sited in green belts.

Appropriate development within an airport operational area has been defined within a number of planning documents notably Annex B to PPG13 Transport, a variety of development plan documents, for instance, the Manchester, Leeds and Bristol unitary development plans and most recently the panel report into the submitted draft of the North East RSS. Through the Airport Action Area Plan process we will seek to encourage the adoption of a similar regime for Bournemouth airport. The following list represents a summary of those uses that have been deemed appropriate and tested through policy and applications:

Operational facilities and infrastructure including:

- Runways and taxiways;
- Aircraft apron and apron services buildings;
- Aircraft fuelling and storage facilities;
- Emergency and control authorities facilities;
- Control tower, air traffic control accommodation and ground and air navigational aids;
- Facilities for the maintenance, repair and storage of service vehicles.

Passenger and terminal facilities including:

- Passenger facilities including catering and retail;
- Administrative accommodation for airlines, handling agents, tour operators, airport authority and government agencies;
- Public and staff car parking;
- Public transport facilities, including buses, coaches and taxis;
- Facilities for general aviation

Cargo facilities including:

- Freight forwarding warehouses and bonded warehouses;
- Associated accommodation for airline agencies, freight forwarders and government agencies;
- Lorry parking, fuelling and servicing facilities;
- In-flight catering and flight packaging facilities.

Airport ancillary infrastructure including:

- Car rental, maintenance and storage facilities;
- Hotel accommodation;
- Training centres for airlines and related services;
- Ancillary office accommodation;
- Maintenance facilities for aircraft and avionics;
- Petrol filling stations;
- Sewage, waste handling and waste water facilities and other utility infrastructure.

Landscaping works including:

- Strategic planting, earth mounding and habitat creation.

Internal highways and infrastructure including.

- Cycleways, footways and roadways.

In this document, we have set out the changes required at the airport for the period up to 2015 in detail and in principle up to 2030 to meet our growth projections. In addition, we also explain the implications for other activities currently taking place within the southern sector. What we have established is that we can accommodate our development requirements up to 2030 on land under our control.

5.3 Proposals to 2015

Runways and taxiway system

The runways and taxiway system at the airport are more than adequate for the forecast growth. At 2,271 metres, the runway is capable of dealing with all of the airport's requirements. This covers both passenger air transport movements typically Code D and C or smaller and the

aircraft maintenance businesses located in the northern sector, which deals with Code E and D type aircraft and smaller.

There will be a need to realign a length of taxiway and provide suitable drainage as part of wider redevelopment plans outlined below. As part of the future development of maintenance operations a combined engine test and aircraft wash facility is likely to be included in the northern sector. This would require a new area of apron and associated drainage.

Passenger terminal facilities

Over the last few years, there has been a rolling programme of upgrading our passenger terminal facilities. The passenger terminal is now close to capacity and further enhancements are needed. The annual throughput of passengers is less important than being able to comfortably accommodate passenger throughput during the busiest hours of the year. Terminal design criteria are chosen to reflect this and will include new technologies and advancements in operational processes. This can increase and enhance the efficiencies of the terminal facilities, provide space for improvements in operational processes and capacity for the expected growth in passenger numbers.

We will, therefore, have to provide additional terminal space in the period to 2015. At present, we have a total of 5,430 sq.m. of terminal space to house passenger check-in and arrival facilities, enquiry desks, passenger lounges, security and control authority space, cafeteria and shop facilities and management offices. To accommodate forecast passenger growth to 2015, a total terminal floor area of approximately 8,800 sq.m. is needed.

In addition to providing extra space, to make the terminal convenient for our customers we need to improve the physical relationship between passenger lounges and the routes by which passengers connect with their aircraft. There is also a need to provide improvements that reflect the 'gateway' role the airport affords to visitors to the region, as in many cases the airport will be visitors' first and last impression of the region.

We have evaluated two alternatives to enhance passenger terminal facilities. The first is to construct a new terminal building for which we currently have outline planning permission. This was for a building of 8,400 sq. m floorspace located to the south-west of the existing terminal. The current outline planning permission for a new terminal has a number of planning obligations attached to it relating to the operation of the airport, e.g. night-flight restrictions, wastewater provision, highway access and there is a Section 106 agreement with Christchurch Borough Council containing a number of additional commitments.

The second alternative would be to improve and selectively extend on the existing terminal site.

We have undertaken an assessment of the financial and environmental costs and benefits of both options, taking account the requirement to provide excellent service to our customers whilst bearing in mind our objectives set out in paragraph 5.2.

We have decided to pursue the second option set out above. This will allow a phased investment and improvement of our existing terminal facilities, to match demand as it occurs; see figure 5.1. By doing this we can commence an upgrade of our existing accommodation at an early stage and so very quickly start to further improve the facilities. Our focus will be to assist the smooth operation of the terminal and to improve the service to our customers with minimal impact through the development process. We will work closely with the borough council to formulate our proposals and to take forward any agreements applying to the previous consents.

We consider this to be a more sustainable solution. It will also allow us to build in a rational manner to match the year on year growth and, if demand does not materialise in line with our forecasts, we will not have undertaken development prematurely. Proposals to develop a terminal on an entirely new site to the north of the runway were discounted after initial review, as the infrastructure, resource and cost implications would have proven to be prohibitive and to abandon the existing infrastructure of the southern sector would be an entirely unsustainable approach. It would also reduce the area of land available for employment and commercial development in the northern sector – one of the most important allocated sites in the structure and local plans.

Subject to the necessary approvals we plan to commence construction on the first phase of the terminal redevelopment in 2007/08. This will provide additional departures lounges, through new build and redevelopment of the existing 1980s building; extend the check in hall; provide additional commercial / retail facilities and enhanced security screening facilities. We also plan to construct a new building to house an arrivals concourse, customs and immigration facilities and a new international baggage reclaim hall. In this first phase, we will be building, refurbishing and redeveloping approximately 8,800 sq.m. in total of floorspace, which includes refurbishment of the original 1980s terminal building structure.

The existing make up of the terminal area lends itself to this phased development, which can be undertaken with minimal disruption to our operations. In terms of design, we will reflect the designs of the most recent buildings to significantly improve the cohesiveness of the area. We also plan to erect new facades at an early stage so as to give an early visual improvement to the terminal building.

These improvements are not just to the terminal. At an early stage these works will improve the passenger drop off / pick up areas and also the relationship between departures lounges

and aircraft parking stands. Section 6 Managing the Impacts of Growth sets out the standards that we will apply to all new developments on-site in order to maximise the energy efficiency of buildings and to incorporate sustainable development principles.

Aircraft parking aprons and stands

We currently have four contact aircraft parking stands and will need to increase this number as we grow. Our typical passenger aircraft are Code C sized e.g. Boeing 737-300 / 737-800 and we will generally use this as the design code for the aircraft parking stands. We do also attract, from time to time, larger Code D sized aircraft e.g. Boeing 757, 767, and so will maintain the existing Code D taxi lane between the eastern and western aprons to allow for these larger aircraft.

The existing aircraft parking stands adjacent to the terminal are not optimally arranged, though efficient use is made of the available area. We plan to rationalise the existing four contact stands and deliver two new stands by 2008; see figure 5.1. Approximately 12,400 sq. m. of new or improved hardstanding will be required for these two additional stands. In doing this we will undertake careful space planning to give more room for service road access for airside operational vehicles. We will provide a covered pedestrian walkway along the length of our new departures area to facilitate pedestrian movement between the terminal building and the aircraft on stand.

Away from the terminal building, we plan to rationalise and improve the existing three remote stands on the western side of the taxilane. Passengers will be taken to aircraft using these stands by bus.

In the period to 2015, the operations to improve and rationalise aircraft parking space will require in total some 13,500 sq. m. of new or improved hardstanding with associated surface water drainage systems, the design of which would be agreed with the Environment Agency.

A further important element of our business relates to the 'executive' or 'business aviation' sector, where Bournemouth has a small but important level of activity. Within the period to 2015, we anticipate that this activity will be accommodated by the new stand arrangement.

Car parking and the airport surface access strategy

As noted in paragraph 3.3, the operational airport's SAS is currently being reviewed in conjunction with the Airport Transport Forum. We have modelled the traffic implications of the growth proposals set out in this document and have set out the conclusions in Section 6. These conclusions, together with the development of an airport-wide green travel plan (i.e. putting in place measures to address passenger and staff access to the airport as well as business access to the northern sector), will form the basis of this revised SAS.

Efficient and safe surface access is crucial for the future growth and development of the airport. Government policy encourages the integration of transport systems and seeks to direct new development to sustainable locations that are well served by public transport. Airports are identified as major opportunities to deliver these objectives. Airport operators, with the support of their partners, are expected to take the lead in improving the quality of surface transport access, encouraging use of more sustainable modes of managing road traffic. The key issue is to manage the growth in road traffic associated with the airport's development.

While limited public transport links to Bournemouth Travel Interchange and the town centre are available, most of our passengers (59%) are 'dropped off' at the airport by friends or family. Each 'drop off' and subsequent collection gives rise to four car journeys for every return air trip. That is, the air passenger is brought to the airport; the vehicle then returns. It comes back to the airport to collect the air passenger and takes them home. By contrast a passenger driving to the airport and parking will generate two road trips per return air trip i.e. one to, and one from the airport. It follows that action to change this pattern of behaviour and switch it to either parking on site or public transport usage will have the greatest benefit from a road traffic point of view.

Our target is to progressively reduce the ratio of vehicle trips generated per passenger. This relatively simple measure will accurately reflect any success in changing the behaviour patterns of both staff and passengers. The ratio is calculated by dividing the total number of road traffic movements into the airport site by the numbers of air passengers. This will require the installation of automatic traffic counters on our access point to allow daily, monthly and annual trends to be analysed.

The revised SAS and green travel plan will promote the enhancement of the public transport links, but it is anticipated that due to the airport's location the car will remain the predominant mode of transport. Public transport options by their nature are only viable when a critical mass is reached. The revised SAS and Airport Travel Plan will attempt to develop the synergies between the northern and southern sectors to enhance the development viability of public transport and other sustainable transport options. We will work with bus service providers to develop routes that are able to cater for both passengers and staff at the airport and for staff on the northern sector. We will work with the local authorities to examine, develop and promote both walking and cycling routes to serve both the northern and southern sectors. Further details are set out in Section 6.

Taking account of the relatively slow growth of the public transport mode share, a key element of our SAS will continue to be to ensure that sufficient reasonably-priced, parking space is available. This may go some way to encouraging some of those people who are 'dropped off' at present to use their own vehicle and, thereby only create two journeys per return air trip. The demand for car parking is influenced by the number using public transport, the mix between

business and leisure travellers and the mix between charter and scheduled flights. From a congestion, safety, convenience and operational point of view it is necessary for the airport to have sufficient capacity to meet demand including at times of peak demand (be that weekly, daily or hourly). Contingency plans also need to be in place for times of extraordinary demand, for example, if there is major disruption or sudden changes affecting air traffic or the road network.

At present there are approximately 2,177 medium/long term passenger parking spaces (car park 1 and 2). To accommodate the future volumes of activity the additional spaces shown in table 5.1 will be required.

Year	Additional spaces
2006/08	670
2009/10	844
2014/15	2030
Total additional spaces	3544
Total provision	5666

Table 5.1: Future car parking provision

To accommodate this additional car parking a number of options were assessed against operation, construction, environmental and financial criteria. Certain options were severely constrained by the sensitive habitats that surround the airport. The assessment concluded that the most favourable option is to develop in the southern sector. As well as rationalising uses on site, particularly in the area to the north-east of the terminal, to provide a more efficient use of developed land we will look to develop alongside the south-west taxiway; see figure 5.2. Relative to the other options, this option offers benefits in that it is within the airport's boundary and is currently managed in accordance with the airport's habitat management programme for operational grass areas. The close proximity of the proposed parking area to the terminal minimises the distance passengers need to be transported between the two. The transport route to the new car park could either be accommodated within the southern sector's boundary, or via Parley Lane, utilising the junction currently permitted in conjunction with the new terminal building.

The proximity of the current parking to the terminal is a key part of providing an efficient passenger process through the airport and this feature needs to be maintained. We will seek to retain car parking within the airport operational area.

We propose to enhance the facilities for bus and coach access to the terminal with the construction of a bus drop-off and turning area close to the main terminal building, see figure 5.1. Coming off this loop, the existing airside access road will be realigned and improved.

Related ancillary infrastructure

The growth in passenger throughput will lead to an increase in wastewater beyond the capacity of the airport's current treatment works. It will therefore require the creation of additional capacity. The current scheme of providing a new sewer to run from the southern sector directly to the Holdenhurst wastewater treatment works, located adjacent to the A338 is being reviewed. A preliminary assessment of appropriate pipeline routes was carried out in conjunction with the new terminal building application, and a preferred route was identified. Preliminary design and scheme development will be progressed in 2007.

Wessex Water as consulted during the determination of this route and will be commissioned to review the scheme requirements and develop the proposals further, in line with the requirements of the Master Plan. The construction of a new system would be the subject of a separate planning application, which would be accompanied by an assessment of its environmental implications.

New facilities and accommodation will be provided for crew and ground operations staff serving the stands. The existing aircraft fuelling operations will be rationalised and expanded to match the growth in ATMs. The existing fire station will be developed to cater for new appliances and expanding crew-training needs.

Other activities

The Bournemouth Airport site contains a community of aviation related activities, reflecting in part its history of aircraft production after the Second World War. Most related activities are located in the northern sector, however, there are also some aviation but not operational airport related activities currently located in the southern sector. These activities are important to this community but, as the operational airport grows, some may need to be relocated.

If such relocation is required, we will work with our tenants to seek to accommodate them in suitable premises elsewhere within the northern sector. The principle we will follow here is for the southern sector to concentrate on operational airport related uses, with the gradual relocation of non-operational related activities.

5.4 Proposals beyond 2015

Runways and taxiway system

We do not currently anticipate any need for modification to the runway and taxiway system in the period 2015 – 2030.

Passenger terminal facilities

In the period 2015 – 2030, our phased gradual extension of the passenger terminal facilities will continue. By 2030 we anticipate that the total floorspace needed for the terminal operations will be around 12,700 sq.m. The same principles set out in paragraph 5.2 will apply, in that additional space/redevelopment will be undertaken as and when there is demand to support it.

Aircraft parking aprons and stands

Cargo aircraft currently use the same apron area as passenger aircraft. As we rationalise and extend the passenger aircraft stand area there will be a need to accommodate the displaced cargo aircraft. To do this we plan to create a dedicated cargo aircraft parking area, the stands sized such that they can accommodate up to two Boeing 767s for shared passenger operations, see figure 5.1. We do not anticipate any significant increase in cargo operations and so have not made any further allocations within the southern area to cater for any expansion.

Parking

In this latter part of the Master Plan period, we anticipate that an additional 2,860 car parking spaces will be required. The provision of these additional spaces was also included in the assessment mentioned in paragraph 5.3, and it was concluded that initially they would best be provided in part by extending parking within the proposed the new south-west car park, see figure 5.3. The remaining additional spaces will be accommodated in new car parks to be located on land in the northern sector. Space for this car park would be safeguarded during the development of the northern sector. Figure 5.3 shows an indicative area on its key to illustrate the extent of land that would be required, but we have not shown this ascribed to a particular area of land in the northern sector to avoid being prescriptive or pre-emptive of the master planning and Airport Action Area Planning processes for the northern sector. The new car park would require a bus service to transport passengers to and from the terminal via Parley Lane.

Further enhancements to the public transport offer will become possible as passenger numbers grow and the critical mass required to support services grows.

Other activities

Our strategy for other activities in the period 2015 to 2030 is similar to that for the next ten years. We will continue to welcome operational airport related activities to the southern sector, but will increasingly seek to relocate non-operational activities to the northern sector; so as to make the best use of the space in the southern sector as part of the core operational airport related uses.

The airport's fire training ground is located in the northern sector. Maintaining such a facility is essential to the safe operation of the airport and to its continued licensing by the CAA. Subject to development coming forward in the northern sector during the period 2015-2030, see figure 5.3, it may be necessary to relocate the fire training ground to a new location within the northern sector. This will require the construction of an area of additional hardstanding, engineered to control discharges arising from training activities in accordance with the Environment Agency's requirements.

Figure 5.1: Southern sector Master Plan proposals for 2015 and 2030

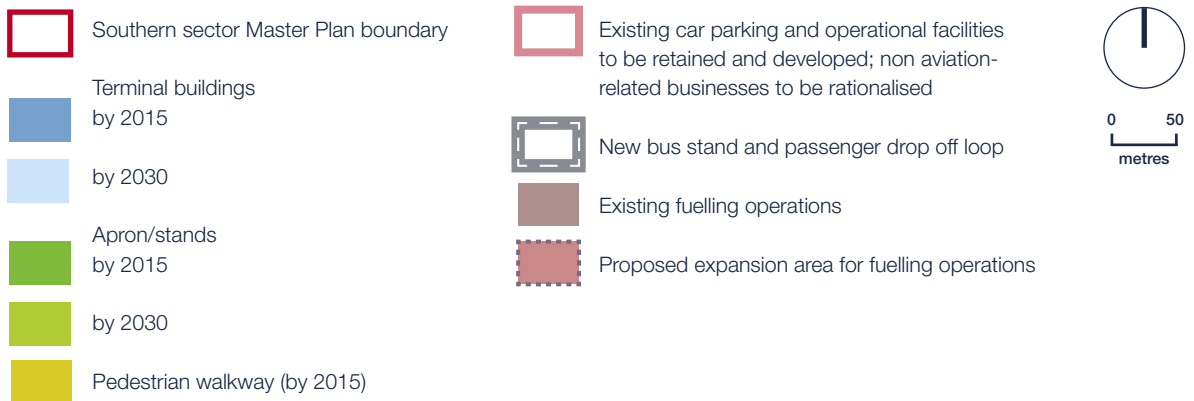
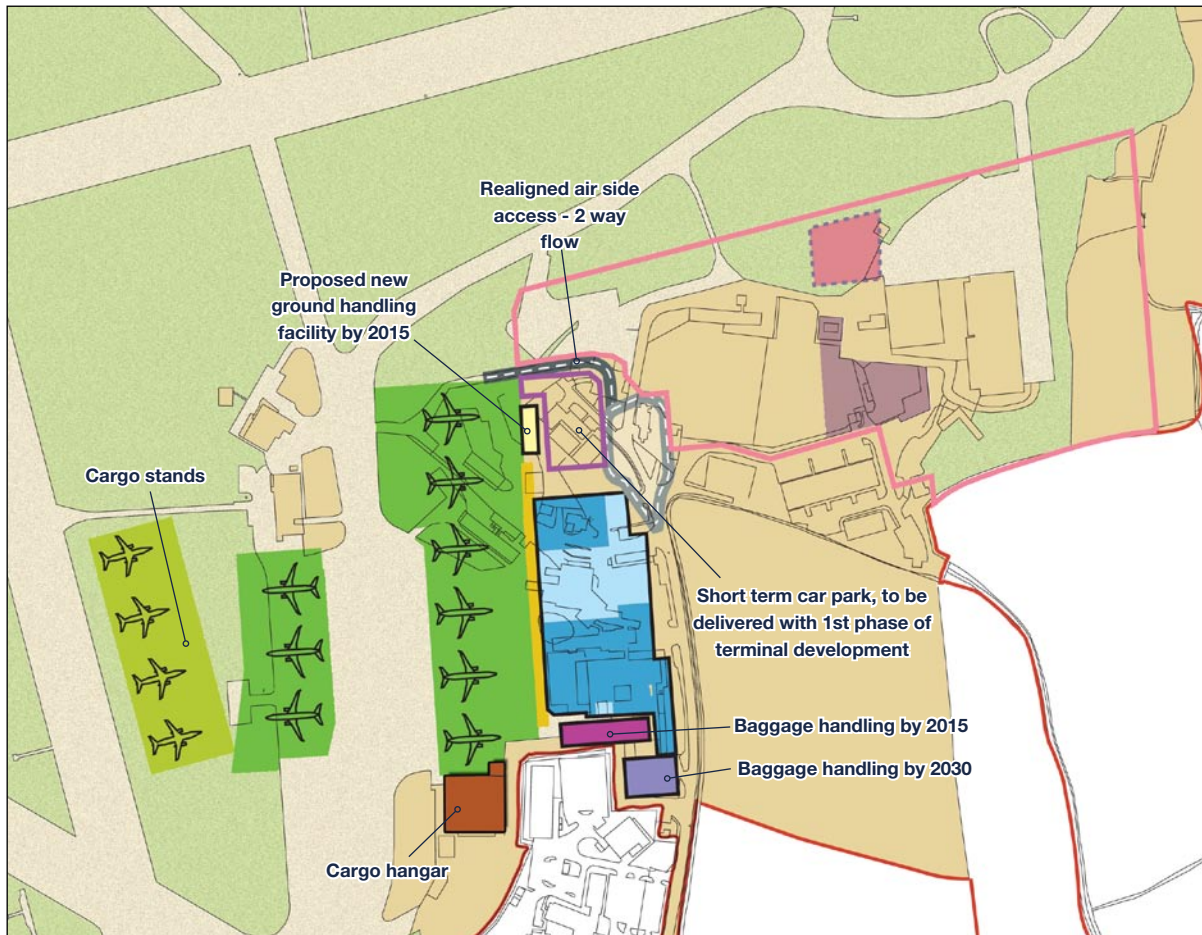


Figure 5.2: Car parking development by 2015

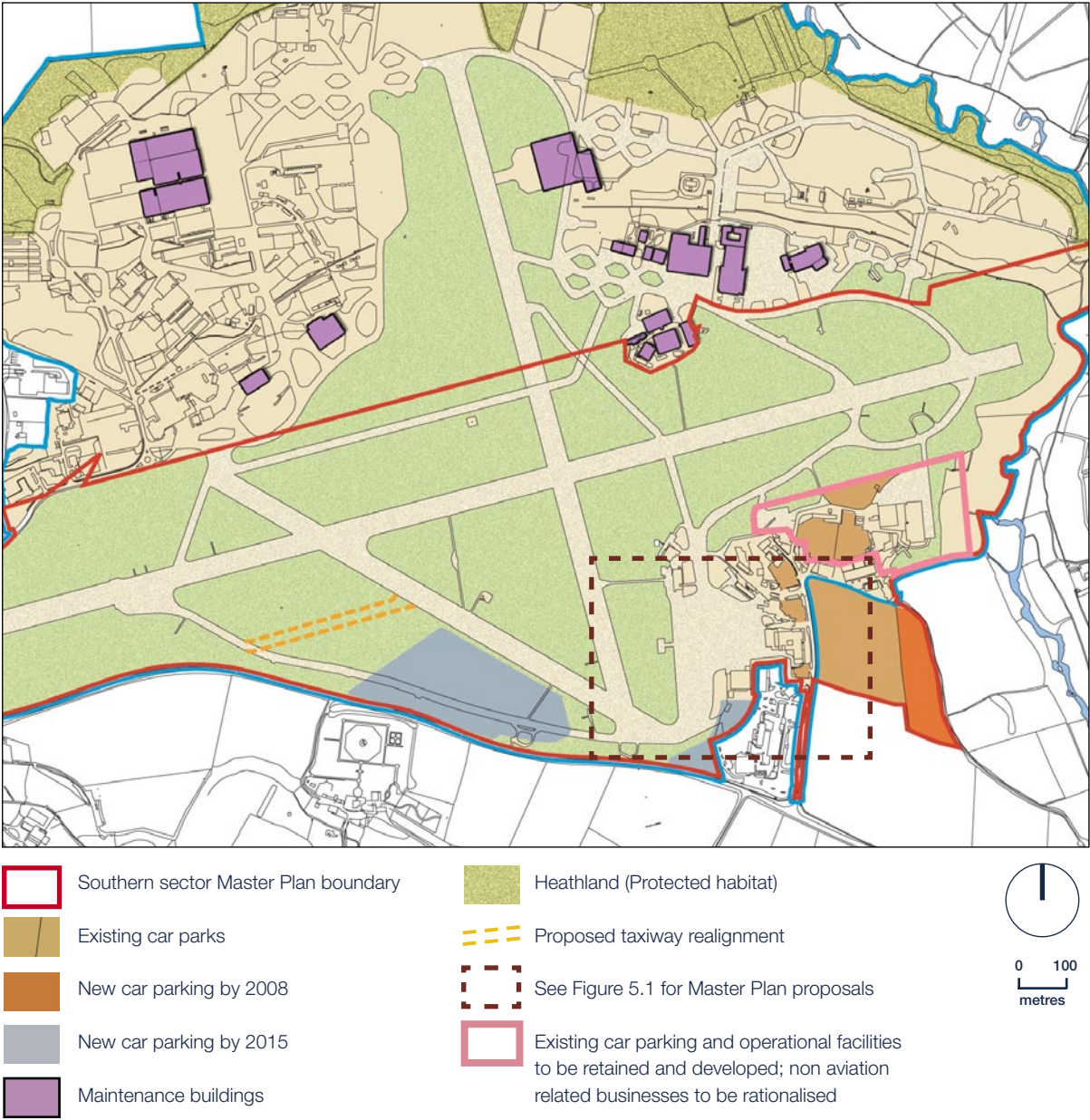
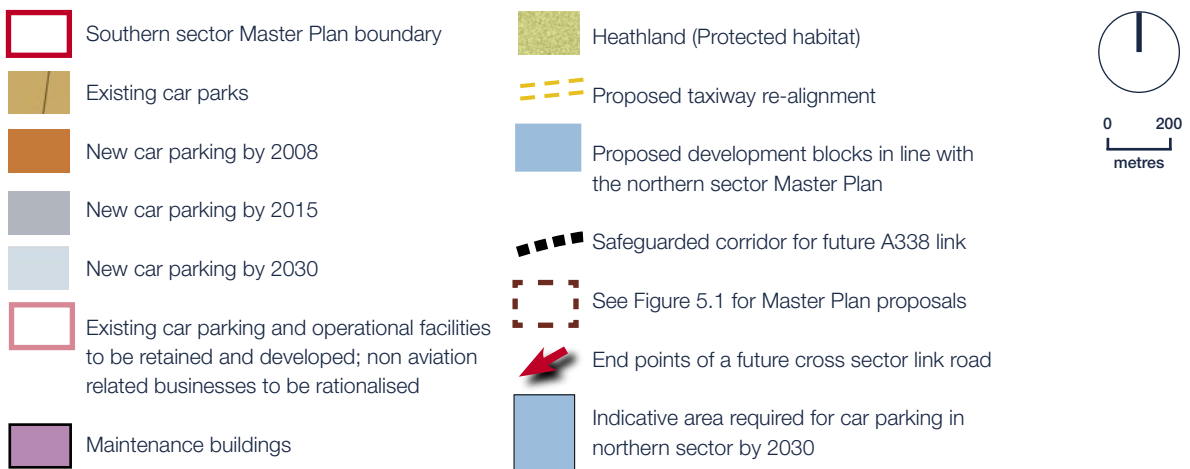
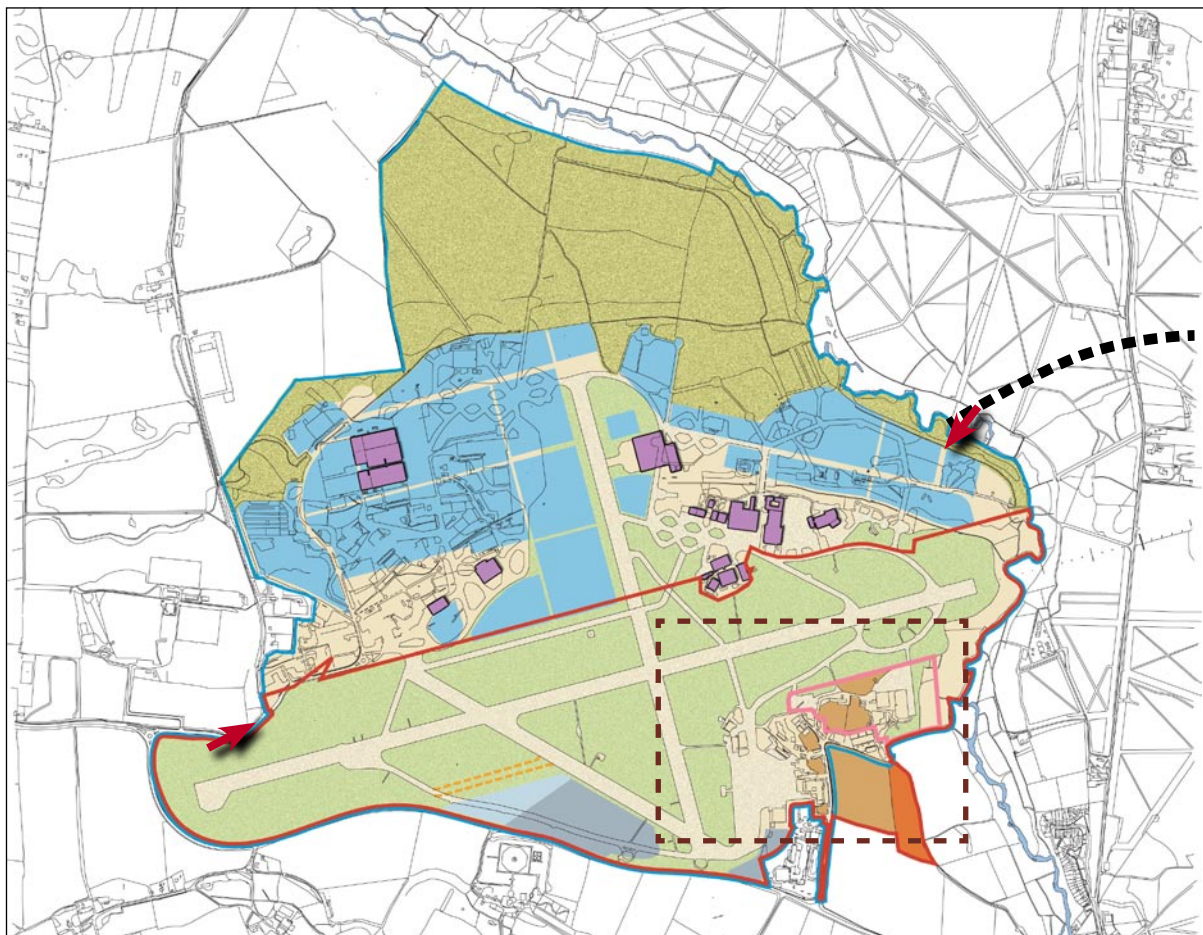


Figure 5.3: Car parking and airport development by 2030



6. Managing the impacts of growth

6.1 Strategic environmental appraisal

The Master Plan's proposals have been strategically appraised against a series of generic environmental and sustainability objectives. The results are presented in table 6.1. Although a number of preliminary studies have been undertaken in recent years, for some of the issues covered by the objectives studies may not have been concluded or commenced. This means that for some of the objectives the impact of the Master Plan's proposals are uncertain and difficult to accurately predict at this stage.

Table 6.1: Bournemouth Airport Master Plan – assessment of compatibility with strategic environmental objectives

+	positive/compatible
0	no effect/neutral
-	potential conflict
?	uncertain

Objective	Compatibility	
1. To provide wider beneficial economic impacts to the region.	+	Expansion is likely to increase direct employment at the airport and contribute indirectly to employment in the wider region.
	+	Increased inbound passenger numbers will lead to increased spending in the local area.
2. To enhance operational airport security.	+	New terminal will provide the opportunity to enhance security, including improved security accommodation.
3. To minimise the number of people adversely affected by aircraft noise.	+	Number of households affected by aircraft noise will increase, due to increased movements. However, households will not be subjected to significant levels of noise, with none in the highest noise band (>69dB).
	+	The noise complaints procedure will be enhanced, introducing the capability to undertake noise monitoring at complainants' properties.
	+	The introduction of radar tracking and recording of individual aircraft movements will enable the introduction and enforcement of noise abatement procedures.

Table 6.1 continued

Objective	Compatibility	
4. Protect and enhance biodiversity and designated habitats.	+ ?-	<p>The new terminal facilities will be on the existing terminal site and the majority of the new stands will be on previously developed land – no direct impact on designated habitats.</p> <p>Potential negative impact from increased nitrogen deposition on adjacent heathland as a result of increased aircraft movements. The preliminary results of a study of this issue, indicates that no significant impacts are anticipated.</p>
5. Use land efficiently and minimise the use of open land for expansion.	+ -	<p>Use of open land is minimised by location of the new terminal facilities on the existing terminal site and the majority of the additional stands on previously developed land.</p> <p>New car parking proposed within existing airport operational area.</p>
5. To use land efficiently and minimise the use of open land for expansion.	+ -	<p>Use of open land is minimised by location of the new terminal facilities on the existing terminal site and the majority of the additional stands on previously developed land.</p> <p>New car parking proposed within the southern sector.</p>
6. To protect the water environment by improving water quality and reducing pollution.	+ + +	<p>New and upgraded drainage systems will be provided to ensure that there are no adverse impacts on the water environment.</p> <p>Provision of new sewer to link to the Holdenhurst wastewater treatment works will ensure that increases in wastewater can be accommodated.</p> <p>Removal of existing discharges to the Moors River SSSI from the airport's wastewater treatment works.</p>

Table 6.1 continued

Objective	Compatibility	
7. To ensure the expansion is not at risk of flooding and does not increase flood risk elsewhere.	0	The expansion will increase the area of hardstanding. However, measures will be included to ensure overall run-off rates from the airport do not increase.
8. To reduce emissions to air from road traffic. (Continued)	+	Provision of additional car parking spaces may reduce the (currently large) number of passengers dropped off at the terminal, thereby reducing the number of journeys from four to two per passenger group.
9. To maximise the opportunities for access by non-car modes of transport.	+	The introduction of a site wide surface access strategy and Green Travel Plan will encourage use of non-car modes and car sharing among employees across the airport
10. Reduce the production of greenhouse gases.	-	Enhanced facilities for bus and coach access through the construction of a bus drop-off and turning area.
11. To protect the historic environment and heritage.	0	No effect.

Table 6.1 continued

Objective	Compatibility	
12. Protect landscape character.	+	Use of open green belt land in the expansion will be minimised, with the new terminal being constructed on the site of the existing buildings. This will limit the extent of any change in the level of openness.
	+	Removal of old, end of life buildings, leading to an enhanced appearance.
	?-	Provision of car parking on existing land would change the character of land that is clearly visible from the B3073; though mitigation in the form of bunding or landscaping will be provided.
	0	There will be no change to the runway and associated lighting.
13 Use natural resources efficiently in the expansion.	+	Reuse of the existing terminal site minimises the land take required to accommodate growth.
	+	Phased construction of stands will ensure that unnecessary development does not take place.
	?+	The construction of a new terminal will provide opportunities to increase energy efficiency.
	?-	No detailed information is available on waste generation and disposal, but an increase in passenger numbers is likely to increase waste generation. Make commitment to reduce waste per passenger.
	+	Waste management systems will be improved, with the provision of additional facilities to facilitate recycling by passengers, retail outlets and aircraft cleaners.

Managing the environmental impact and climate change

Managing the environmental impact of our operations in a responsible and effective manner will underpin our future growth. The Government's support for this growth is predicated upon the stringent control of our environmental impacts.

There is now scientific consensus on climate change. The aviation industry currently gives rise to a small percent of the global emissions causing climate change but, with continued growth in air travel, this could rise in the future. Climate change is thus a major challenge to our industry's responsible and sustainable growth. Whilst the UK aviation industry operates in a globally competitive market and is subject to international agreements and regulations, thereby limiting the scope for national responses, there is much that we can do to limit our contribution as an airport operator to greenhouse gas emissions.

The most significant impact of airport operations on climate change is the emission of carbon dioxide (CO₂), resulting from the operation of vehicles in and around and to and from the site, aircraft taxiing and manoeuvring, the heating and insulation of buildings and overall energy use. As a starting point we will undertake work to assess the carbon emissions that the airport's operations currently produce, and will expand this work to take in the northern sector in due course, so that solutions and working practices developed for the operational airport can be rolled out over the whole of the site.

As a first step we have an adopted commitment to obtain 25% of our electricity supply from renewable sources by 2010. This is in excess of Government targets. The potential offered by the use of bio-fuels, the use of new building technologies and the maturation of the renewable energy market give us confidence to establish a target that:

We are committed to being carbon neutral for our energy use and vehicle fuel.

This target is challenging and far-reaching and will ensure that on a day-to-day basis, the airport's operations will be carbon neutral. We will set ourselves a challenge to engage our partners in the development and management of the northern sector to try to roll out this aspiration across the whole site. The measures outlined below have the potential to achieve greatest impact if developed across the site as a whole and wherever possible we will seek to introduce measures that have the potential to develop synergies between the northern sector and the operational airport.

6.2 Traffic and transport

The objectives of our surface access strategy are:

- To increase the ease of access to the terminal by public transport, whilst recognising that its location limits the range of opportunities for this;
- To ensure there is adequate, reasonably priced car parking to minimise the number of passengers 'dropped off' at the terminal, thereby reducing trip generation;
- Work with Dorset County Council to ensure that essential highway improvements are carried out in a timely manner.

At present the SAS applies only to operations within the direct control of Bournemouth Airport as a company and therefore does not apply to the considerable number of other businesses that operate within the confines of the land owned by the airport. We are prepared to co-ordinate the expansion of the airport SAS to encompass all employers and employees within our ownership boundary. The techniques and practices that will apply will be based upon those developed as part of the site-wide SAS and modified by best practice from similar travel plans such as that applied at other airports and from successful methods implemented or monitored by Dorset County Council. Brief details of the methods to be used are given below.

Benefits to the environment and local community

- Reductions in car use bring a decrease in road congestion and air pollution problems;
- The local community could benefit from better public transport services and an improved environment with less noise and cleaner air.

Benefits to the workforce

- Cost savings through car sharing, walking and cycling and other sustainable modes of transport;
- Health benefits of more sustainable modes of travel such as walking and cycling;
- Reduction in stress caused by driving on congested roads;
- Access to employment for non-car users.

Benefits for the organisation

- Improved productivity from a healthier workforce – reduction in days lost to sickness;
- Reduction in demand for on-site parking – potential savings in Uniform Business Rate costs, and more effective use of land;
- Reduction in road congestion – increase in time efficiency of peak hour journeys and improved possibility for further employment expansion;
- Financial savings through more effective management of vehicle fleets and business

travel, e.g. reduction in car mileage repayments / use of smaller engine vehicles which attract lower Vehicle Excise Duty;

- Green image for the organisation;
- Increase labour markets by opening up to non-car users.

Scope of the Bournemouth Airport site-wide travel plan

We recognise the need for a travel plan (TP), not only to conform with current national and local policy guidance, but also due to the environmental, economic and social benefits that such plans can provide. We already have shown our commitment to this process by having an SAS in place for the operational airport. A TP will help minimise the effect of additional development both at the airport and in the northern sector will have on the already congested surrounding network. TPs should be developed, implemented, monitored and reviewed over a period of time to ensure long term benefits; not all interventions will provide 'quick-fixes'. Thus a range of measures are suggested that can be implemented both in the immediate future and on a longer term basis. A number of different modes are considered within this initial scope for the TP, including walking, cycling and public transport, as well as car travel, to ensure that all travel needs to the site are met effectively.

Actions

Initial steps to implement the green travel plan

It is envisaged that a permanent member of staff be appointed as a designated travel plan co-ordinator (TPC) and be trained to undertake this role initially on a 20 hours per week basis, plus support from other airports within the Manchester Group. In the initial stages the time required may be greater and it may be appropriate to engage assistance from either consultants and / or the county council. The TPC would have overall responsibility for co-ordinating the development and implementation of the TP as a whole as well as acting as the key focal point for employers and employees. Liaison with local authorities and transport providers will be another key role.

We will determine a system of monitoring as part of an on-going TP review process entailing annual or 6 monthly sample staff surveys organised by the TPC to ascertain changes in travel behaviour and modal shift and to help identify any necessary modifications to the TP. An initial survey will be taken to establish the baseline for travel behaviour. A survey has already been undertaken to ascertain where employees across the site live, as reported in Section 2. Analysis of this data will allow us to produce a site specific best way forward. In conjunction with other partners we will then be able to identify the most appropriate ways to reduce car dependency. An initial target for a reduction in car access of 5% in the peak hours will be adopted, but this will be kept under review with a view to increasing this reduction over time.

Bus service

Bournemouth Airport is outside of the main urban area and some distance from main public transport routes, see figure 6.1. Its catchment area and location mean therefore that the opportunities for passengers to use public transport are currently limited.

In conjunction with a local bus operator, we currently operate a heavily subsidised bus service between Bournemouth town centre, Bournemouth Travel Interchange and the terminal. There are four return trips Sunday to Friday, rising to eight on Saturdays. The service does not operate during the early morning or evening and does not provide employees with the opportunity to travel to work.

Subject to funding, it is our intention together with a number of interested parties to introduce an improved bus service, servicing Poole, Bournemouth, the airport's southern and northern sectors. An application for Government kick-start funding for the provision of an hourly bus service was made in 2005; this application was rejected. This service would have run throughout the day, from early morning to late evening, enabling passengers to arrive/depart from the terminal with minimal waiting, and for the first time, provide a public transport link to the northern sector, offering employees a non-car means of travelling to work. As well as increasing the budget allocation from the airport into this service, we intend to seek the joint funding required for such a service in conjunction with members of the Airport Transport Forum. Stage bus operators will be encouraged to provide services connecting Ferndown with Christchurch and will be asked if any existing services could be diverted along the western section of Parley Lane to connect with the northern sector. The possibility of introducing innovative or demand responsive services will continue to be explored.

Establishment of a car-sharing database

We are aware of the importance of encouraging those working at the airport to reduce car use per person to travel to work. An internet-based car sharing database has been established for the airport and will form a key part of the future green travel plan for the whole airport site, which will include all of the businesses operating within the wider airport boundary. A method would be devised for applicants to assess the suitability of potential sharers. Arrangements would also be negotiated with taxi firms to ensure that sharers who have to change their time of travel have a guaranteed ride home. It may be possible to negotiate a discount. There are existing car sharing schemes in place for the Dorset county area; the website can be accessed at www.carsharedorset.com and investigations will be undertaken to determine whether the databases can be linked.

Cycling and walking

We will ensure that individual buildings across the whole site have provision for the safe storage of cycles and motorcycles and will try to ensure that showering and changing facilities are

made available. We will work closely with adjoining local authorities and cycling organisations to establish and promote the creation of cycle routes to the airport site. Possibilities are already being explored for the creation of cycle access via Chapel Lane into the western section of the northern sector. This has the potential to greatly reduce the access distance into the site from Chapel Gate roundabout. Between Chapel Gate and the airport entrance dual use could be made of the existing footway. Within the site segregated footways and pedestrian crossings will be established and maintained to a high standard to ensure pedestrian safety and an attractive pedestrian environment.

Other measures

We will pursue and encourage others to take up other measures that can influence travel patterns. The use of flexible working arrangements, such as allowing employees to work from home and / or allow flexible working hours with variable start times, can have a significant influence upon pressure on the road network, especially at peak times. The TPC will co-ordinate a travel awareness programme involving the promotion, management and co-ordination of information packs to increase awareness of the alternative modes of transport available, bus route and frequency information etc. We will also encourage tenant companies to put in place preferential car parking spaces for car sharers and other incentives for encouraging their staff to give up parking spaces. We will actively manage our tenancies in an attempt to reduce car usage and parking on the site.

The involvement and participation of all parties is essential to the effectiveness of a green travel plan in reducing car trip generation. Measures carried out across the airport site will in time prove to be of benefit not only to staff but to passengers too.

6.3 Road transport

Road traffic accesses the airport from the A31 to the west and the A338 to the east. In each case the final approach to the airport is via the B3073 (Parley Lane), a county distributor road; see figure 6.1. The B3073 is the signposted route from the A31 in the west (i.e. from Wimborne, Blandford and Dorchester) to Christchurch and has comparatively high traffic flows. Currently 18 - 20% of the am peak hour flow accesses the operational airport, of which between 70 and 80% is non-operational airport related traffic, principally accessing the NATS college and other uses not directly related to the operation of the airport. Traffic on Parley Lane principally comprises motorists travelling east-west to avoid the Bournemouth conurbation, motorists seeking access to the airport's northern sector, and those travelling to Ferndown and Wimborne.

Parley Lane has a number of congestion related problems, particularly at peak times. Working in conjunction with Dorset County Council, our transport consultant has assessed the impacts on traffic flows that will arise from future development in the northern sector and the growth in passengers using the terminal. A number of local highway improvements were identified for

the period to 2015, focused around the junctions identified below and highlighted in figure 6.1. Initial approaches have been made to the Highways Agency for its input which may require further assessment work on critical highway junctions (Ashley Heath and Canford Bottom). Further studies in relation to the strategic highway network in the conurbation are being progressed at county level for local transport bids.

A new junction for the gravel extraction development proposed for land south of Parley Lane has been constructed opposite the southern sector's entrance junction. The proposed improvement works to the airport's entrance, planned within the next four years subject to passenger growth, is to signalise this junction, with a two lane entry/exit on Parley Lane in both directions having dedicated right turn lanes into the southern sector. The junction design will incorporate the dedicated right turn in to the gravel extraction site. This will significantly improve access to the southern sector and reduce some of the existing problems on Parley Lane.

A number of other improvements have been identified by Dorset County Council. These include improvements to the small, non-standard roundabout at Hurn. We will explore with the county council how we can contribute to such improvements.

At present, the capacity of the Parley Cross junction is very nearly at saturation levels in peak hours. Improvement schemes for this junction have been previously examined by Dorset County Council and have been considered further as part of this Master Plan in terms of likely trigger points. The transport assessment states that the growth of airport passenger traffic up to 1.8m ppa, allowing for a 5% reduction in car trips across the site, is unlikely to trigger Parley Cross improvement works on its own. However, passenger growth coupled with development in the northern sector will require the improvement works.

The Chapel Gate junction provides access to the airport's northern sector. Minor layout alterations are likely to be required as a result of development in the northern sector.

Based on current transport growth trends the above improvements will enable the operational airport to achieve its planned growth to 4 m ppa in 2030. The northern sector will develop independently in line with the emerging Master Plan for its development. It is predicted that during the period 2015-30 this development may reach a point whereby a new solution is required. A new road into the east of the northern sector, from the A338, has been identified as a possible solution, see figure 5.3. The route of this road, which could link through to Parley Lane, is safeguarded in Christchurch Local Plan. Once in place, this link will reduce traffic on the section of Parley Lane south of Chapel Gate, benefiting traffic accessing the operational airport.

6.4 Noise

Airport operations give rise to three groups of noise sources:

- From aircraft in the air, approaching or departing from the airport;
- From aircraft on the ground, other ancillary operations e.g. engine testing, use of auxiliary power units and the operation of the terminal and associated buildings;
- Road traffic noise generated by staff and passengers.

The main roads serving the airport are heavily trafficked with non-passenger related vehicles and local traffic with an associated noise impact will continue to increase independently of future passenger growth. Air noise associated with the airport extends beyond its boundaries and into nearby residential areas. Aircraft noise is often transitory with quiet periods of inactivity interspersed with short intense periods of relatively high noise levels. The levels of noise generated by individual aircraft vary. However, since 1999 there have been notable reductions in the area affected by noise due to the removal of older, noisier aircraft from service. This trend is set to continue and will offset the predicted increase in the number of aircraft movements.

Air noise contours for all aircraft movements have been calculated for key dates during the Master Plan period: 2004 (the baseline year) and for predicted movements in 2015 and 2030. Contours are plotted on maps, see figures 6.2 to 6.4, and estimates made of the number of households that may be affected by noise.

Table 6.2 illustrates the number of households within the calculated aircraft noise contours. Whilst noise generation will increase during the Master Plan period, its impacts are limited. The White Paper makes reference to major airports (exceeding 50,000 air transport movements (ATMs) per year) offering sound insulation to properties within the 63-69 dB(A) contour. From Table 4.2 it can be seen that it is predicted that this level of ATMs will not be reached during the period of this Master Plan, however, we will consider the introduction of proposals to offer sound insulation to those properties worst affected.

Noise contour	Households 2004	Households 2015	Households 2030
Subject to low noise levels (57dB)	892	1310	1880
Subject to moderate noise levels (63dB)	6	10	13
Subject to high noise levels (69dB)	0	0	0

Table 6.2: Households within day-time noise contours

We welcome the Government's amendment to the Civil Aviation Act to enable regional airports to introduce fines for operators who use overly noisy aircraft and to control the approach and departure routes used.

During the Master Plan period we aim to improve our noise complaints procedure. We can install monitoring equipment at a complainant's property to record and assess actual noise levels. We are also aiming to introduce recording of aircraft tracks, which will enable us to enforce our noise abatement procedures through a system of fines, should this be required. We will explore ways with the local authorities of reporting these complaints. We are introducing Webtrak, a website that will allow public access to track the progress of flights.

Night-time noise

There are limited scheduled night-time flights (as defined between the hours of 2300 to 0700) from the airport. Existing operations are voluntarily restricted to cargo flights, the occasional late returning charter flights and scheduled flight departures between 0600 and 0700 hrs. It is not anticipated that this situation will change significantly during the period of this Master Plan.

Figure 6.4 shows the night-time contours for 2004 and predicted contours for 2015. The contours for 2015 include existing cargo movements, maintenance base operations, passenger jet traffic associated with inbound/outbound scheduled traffic. Table 6.3 shows the number of households within each contour. The White Paper places no restrictions on night time flight operations at Bournemouth.

Noise Contour	Households 2004	Households 2030
Subject to low noise levels (48dB)	1777	1906
Subject to moderate noise levels (57dB)	1	0
Subject to high noise levels (66dB)	0	0

Table 6.3: Households within night-time noise contours

6.5 Air quality

Operations at the airport have the potential to impact upon local air quality. The principal sources of emissions into the air are:

- The transport of passengers and staff to and from the airport site;
- The operation of aircraft, particularly taxiing and manoeuvring;
- The operation of the airport's vehicle fleet; and,
- The heating of airport buildings.

To support the Future of Air Transport White Paper the Department of the Environment Transport and the Regions undertook a series of environmental studies, one of which considered the impact of growth scenarios on air quality around airports. The study included the modelling of air quality at Bournemouth Airport. The modelling incorporated growth in air and road traffic, predicted concentrations of NO_x and PM_{10} , and compared them to the human health criteria contained in the National Air Quality Strategy. The modelling results showed that the criteria would not be exceeded at any sensitive receptors.

The airport is surrounded by areas of lowland heath, which are designated at the European level as habitats requiring special protection. Heathlands are sensitive to the addition of excessive amounts of nutrients, particularly nitrogen, since this will facilitate the growth of invasive species. Nutrients can be delivered to the ground from the air by a process known as nitrogen deposition. The exhaust of aircraft engines contains nitrogen oxide gases (NO and NO_2), which can directly influence nitrogen deposition. However, the airport makes a relatively small contribution to local nitrogen oxide levels, the majority of aircraft exhaust emissions occurring at altitude; the dominant local source of these gases is road vehicles.

A national study by the UK Centre for Ecology and Hydrology highlighted that the levels of nitrogen deposition on the heathland are currently above advisory levels. In support of the outline planning application for a new terminal building, a detailed air quality dispersion model was developed and used to assess the current and future air quality. The assessment predicted that NO_2 and related nitrogen deposition levels will fall in future years, despite increases in aircraft movements. All of the proposals identified in our Master Plan will be subject to a similar air quality assessment of the airport and the heathlands. To improve the accuracy of the modelling, we propose to review our current air quality monitoring regime and expand it where appropriate.

We will introduce other measures to drive down the emission of polluting materials from the site, such as:

- The random testing of vehicles for emissions. Any vehicle that fails an emission test will be withdrawn from service;
- Increasing the use of battery powered and other alternatively powered vehicles on site;
- Reducing emissions from vehicles accessing the site through the promotion of public transport, walking and cycling (see above for proposed travel plan and SAS);
- Exploring ways to reduce emissions from taxiing and manoeuvring aircraft; and
- Extending the monitoring of air quality to include real-time assessment of NO_x .

6.6 Natural heritage

Due to aircraft safety considerations there is little vegetation, other than grasslands, within close proximity to the airport's runway and taxiways. An assessment has found that the grasslands are species-poor with little nature conservation value. The airport is required to actively dissuade

birds from feeding on the grasslands in order to avoid the risks of bird strike. This is achieved through regular mowing and the spreading of herbicides.

The airport is surrounded by a mixture of heathland, woodland and arable fields and the Moors River SSSI close to the eastern boundary. Much of this land is within the green belt. There are a number of sites with European designations for their important habitat or bird communities within the airport's boundary and within close proximity. The location of these sites is shown on figure 6.6.

On behalf of the airport, Natural England in conjunction with Dorset County Council actively manages the designated sites within the airport's boundary, and this is set to continue. The proposals identified in this Master Plan will enable the positive management of heathland areas to continue.

We will develop a landscape strategy to outline how we will take forward the management of these areas and we will explore with the relevant authorities to establish whether we can contribute to the management of other areas of scientific and ecological interest beyond the boundary of the airport site.

6.7 Surface water

During and following periods of rain the large areas of impermeable surfaces at the airport, e.g. runways, taxiways, roads and roofs, give rise to quantities of surface water run off.

The refuelling of aircraft, and occasionally de-icing, takes place on the apron stands, therefore these areas pose the greatest risk with regard to the contamination of surface water. In this area the drainage system channels the water through appropriate pollution control measures, before allowing the water to seep into the ground via soakaways. A typical pollution control measure is an interceptor, which separates any fuel or oil from the water. The fuel/oil is then collected by a tanker and sent off-site for appropriate disposal. The network of oil/water interceptors will be upgraded and improved as necessary in light of the development of the site.

The proposals outlined in our Master Plan involve the creation of additional areas of impermeable hardstanding in the form of aircraft aprons. The proposals will include the provision of new and upgraded drainage systems, to ensure that no contaminants enter the groundwater via the soakaways. Like areas of the existing car parks, the new car parking will incorporate sustainable urban drainage systems, principally permeable pavements, whereby contaminant removal occurs either within the surfacing or sub-base material, or by the filtering action of the subsoil.

6.8 Energy

The current terminal complex includes a number of old buildings nearing the end of their life span. Their phased replacement with new buildings provides the opportunity to increase the overall energy efficiency of the terminal complex.

New developments will conform to the requirements of BREEAM (Building Research Establishment Environmental Assessment Method) 'excellent' rating for sustainability. Measures include energy efficiency, water efficiency and heating sources. We currently purchase 20% of our electricity from renewable (green tariff) sources. We have a target to increase this to 25% by 2010, ahead of Government targets. Our ultimate target is 100% renewable electricity, coming from a mixture of on-site generation, microgeneration, off-site generation and green tariff supply. In addition to our energy use, we will look to see how we can best encourage other service partners on-site to use non-fossil fuel energy sources.

As well as the electricity we use, we also use gas to heat our buildings and produce hot water. There is a range of alternative technologies now available that can be used to reduce our gas consumption, such as ground source heat pumps, solar water heating and biomass boilers. These technologies are best suited in terms of practicality and cost to major refurbishments / replacement projects and new build. Again opportunities will present themselves to look across the whole airport site to see where the implementation of such technologies might benefit from the availability of a critical mass of development to make them cost effective.

The close proximity of the proposed new car parking and aircraft stands to the terminal minimises the need to transport passengers by bus. This removes an energy use and the associated emissions of greenhouse gases. Where car parks are developed further away from the terminal complex we will look to utilise the most efficient forms of transfer to the terminal, including low emission vehicles.

6.9 Waste

The increase in passengers will generate additional waste from retail outlets, aircraft cleaning and the passengers themselves. Recycling is already promoted and the new terminal buildings will include new and improved recycling facilities. We will also examine opportunities to reduce waste per passenger. Again there are significant opportunities to develop on-site waste recycling synergies with the northern sector, and we will explore the possibility of centralising waste disposal to maximise the opportunities and potential for recycling between the two sites. The county council's proposal for a MicroBio Treatment plant in the northern sector may offer the opportunity to explore the production of renewable energy from waste.

6.10 Economic and social impact

The local economy

The improvements to the operational airport detailed in this Master Plan will improve the prestige and image of the local area, and help raise the UK and overseas profile of existing and new businesses.

As passenger throughput grows it is expected that approximately 630 new (full time equivalent) directly airport related jobs will be created from 2005 to 2015. A variety of positions will be available to local people, requiring a diversity of skills and experience.

A significant benefit of the operational airport's expansion and development will be an increase in the number of passengers arriving to visit Dorset and Hampshire as a destination. Increased visitor expenditure in the local economy will create indirect local tourism-related employment.

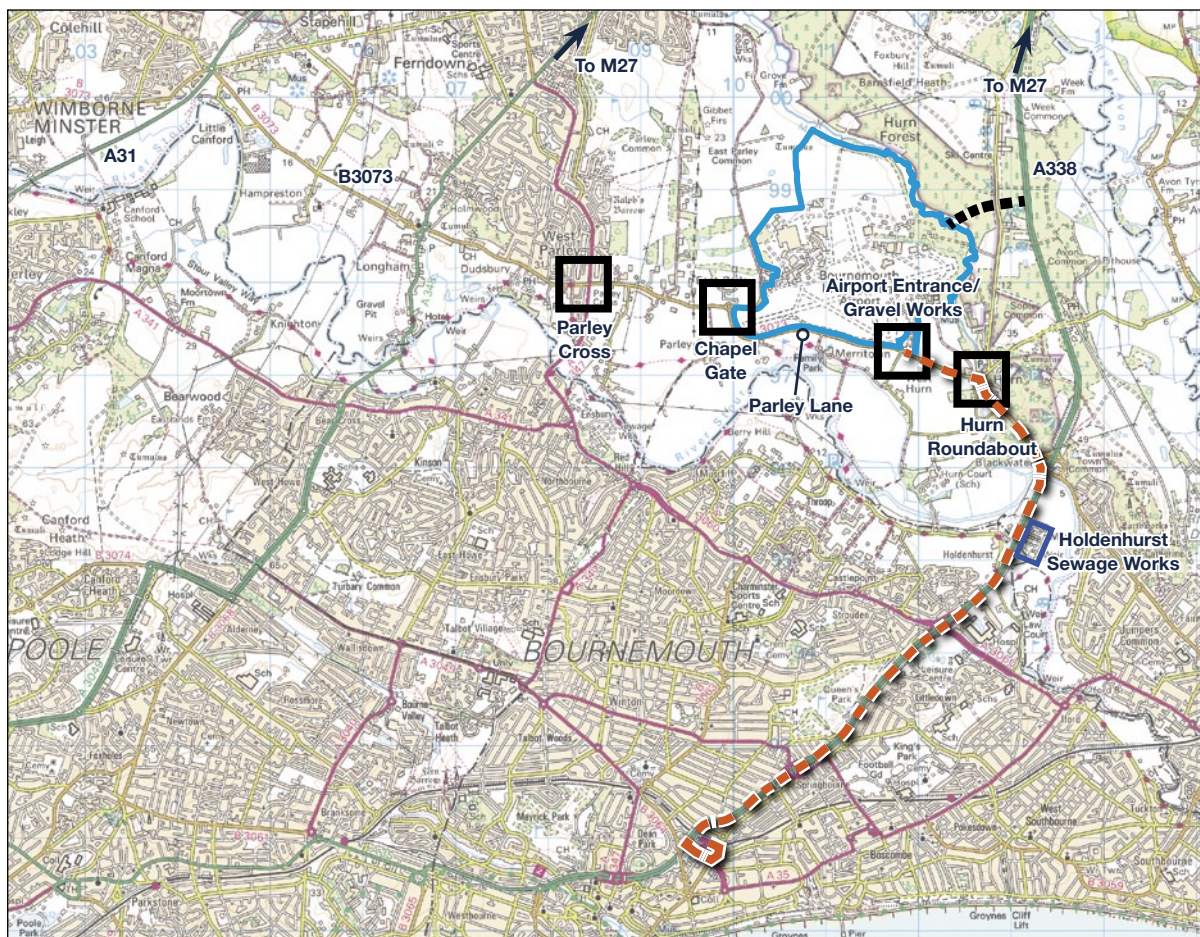
We have estimated the future employment and income impact of the airport on the basis of the following:

- The estimate of the impact of the airport based on current understanding outlined in Section 2;
- An assumption in relation to productivity growth on-site at the airport by which it grows at 2.5% per annum up to 2015, thus reflecting the rapid forecast growth at the airport and the consequent ability to realise economies of scale, and then slows to a rate of 1.5% per annum through to 2030 to reflect the slower growth in passenger numbers over the period;
- An assumption that productivity growth in the South West regional economy will be around 2% per annum over the period from 2005 to 2030. This is in line with the latest regional economic forecasts prepared by Cambridge Econometrics; and,
- The forecasts for passenger and freight growth outlined in the Master Plan.

The forecasts are set out in section 4.

The operational airport's growth will bring social and business benefits through providing opportunities to travel. In doing so it will help to meet the aims of the RSS, see paragraph 3.2, in that it will reduce the need to travel outside of the region to access such opportunities.

Figure 6.1: Highways plan



-  Manchester Airport Group's ownership
-  Proposed junction improvements
-  Safeguarded corridor for future A338 link
-  Public transport link between terminal and Bournemouth travel interchange



Figure 6.2: Daytime aircraft noise contours for 2004

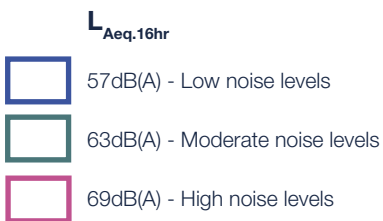
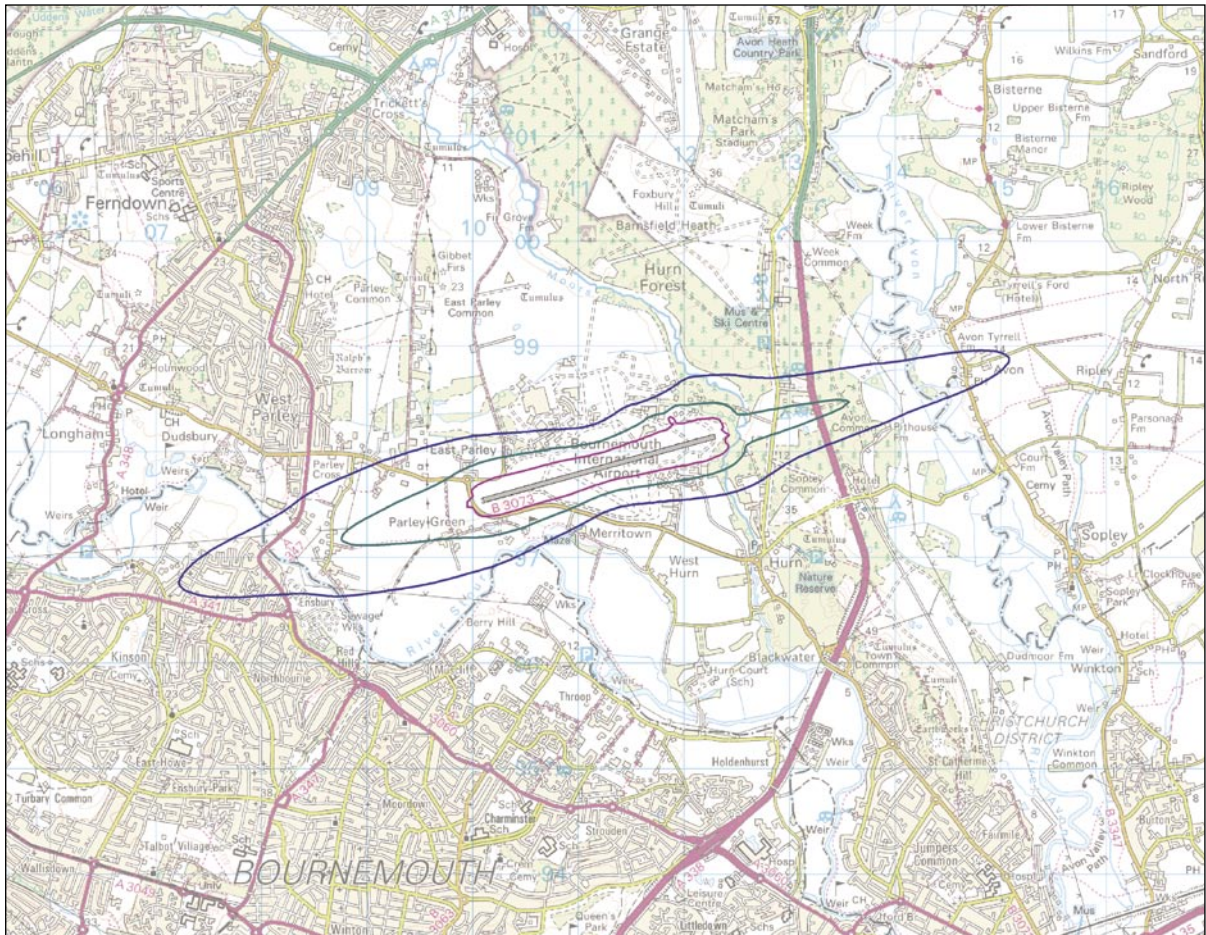
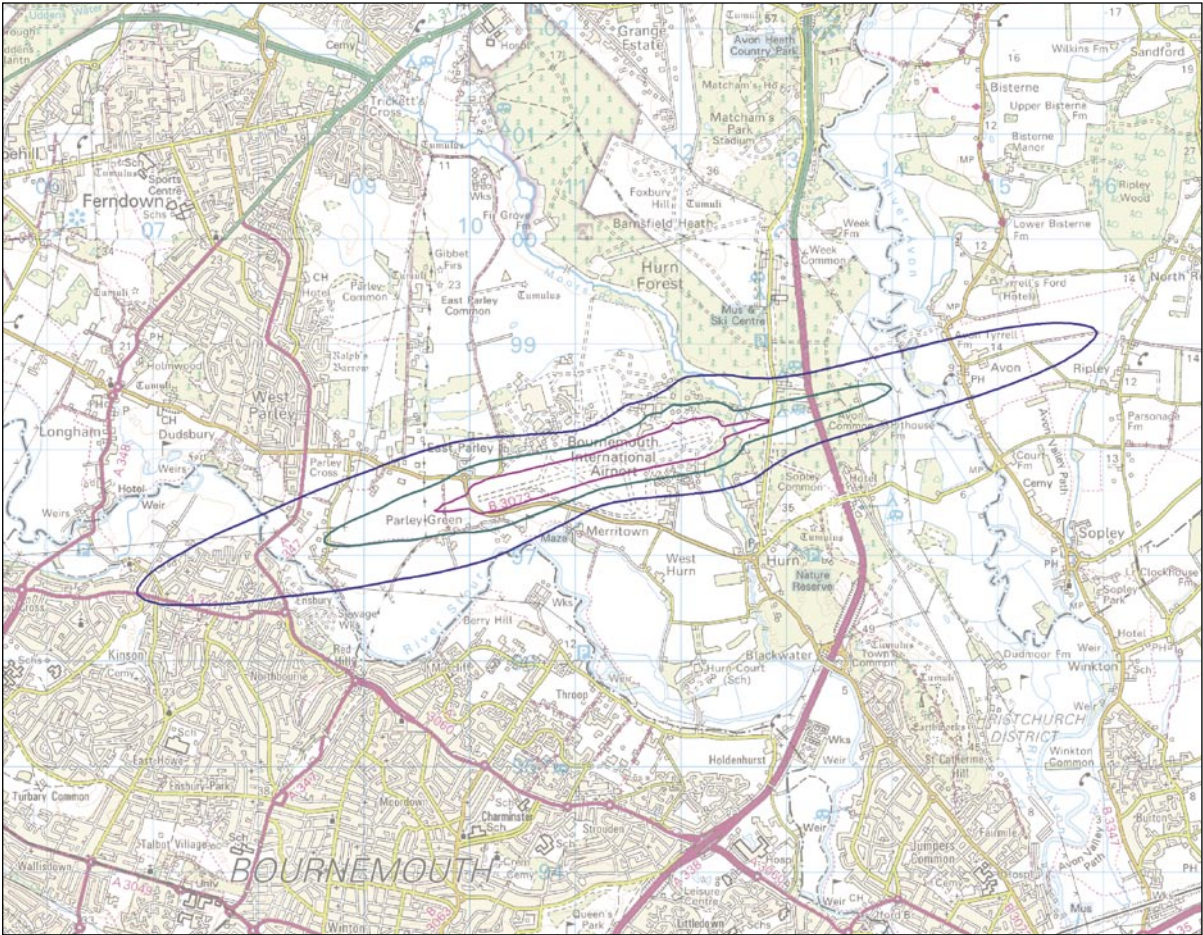


Figure 6.3: Daytime aircraft noise contours for 2015






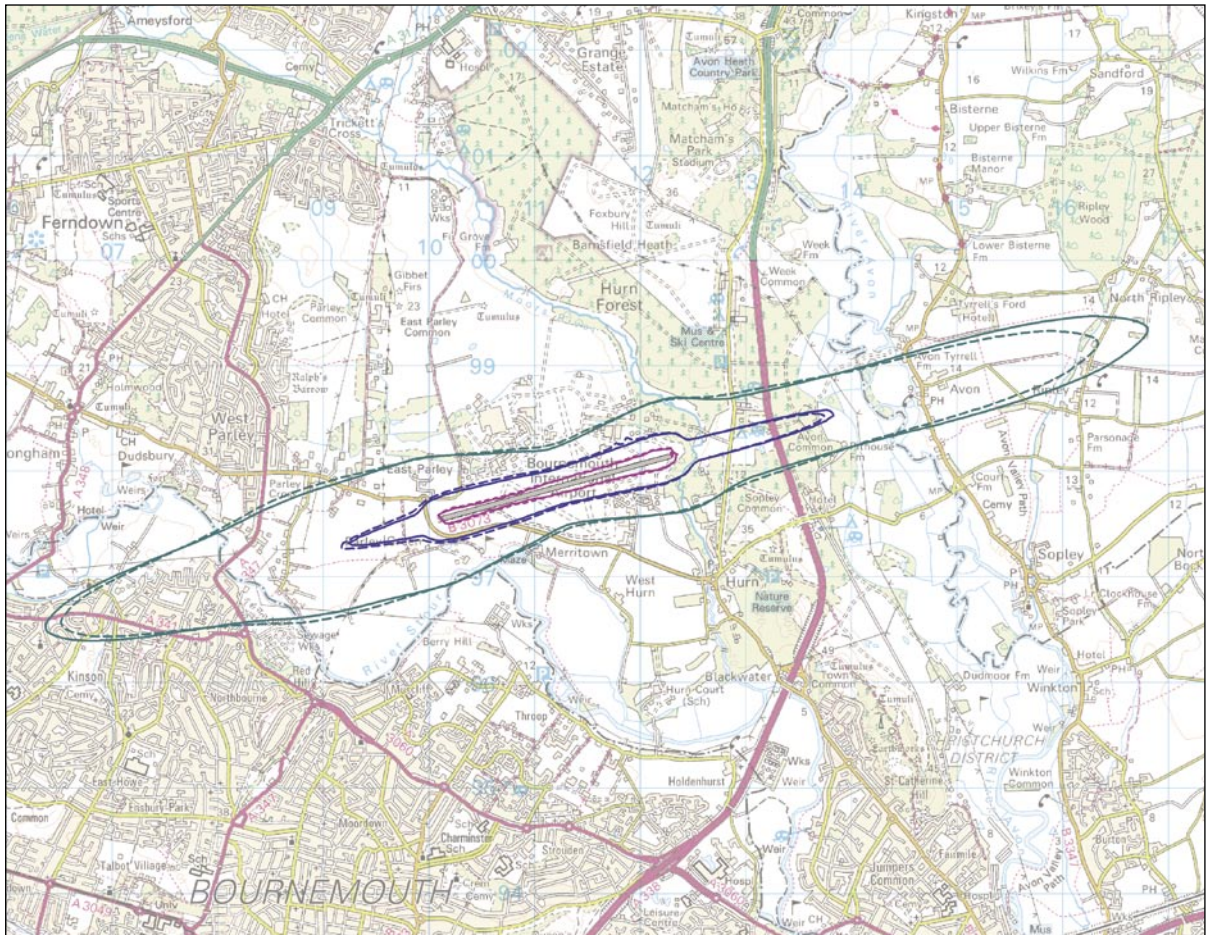
- L_{Aeq,16hr}**
-  57dB(A) - Low noise levels
 -  63dB(A) - Moderate noise levels
 -  69dB(A) - High noise levels



Figure 6.4: Night-time aircraft noise contours 2004 - 2015



- L_{Aeq,8hr}**
- 48dB(A) - Low noise levels
 - 57dB(A) - Moderate noise levels
 - 66dB(A) - High noise levels
- Dashed lines - 2004
- Solid line - 2015

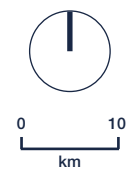
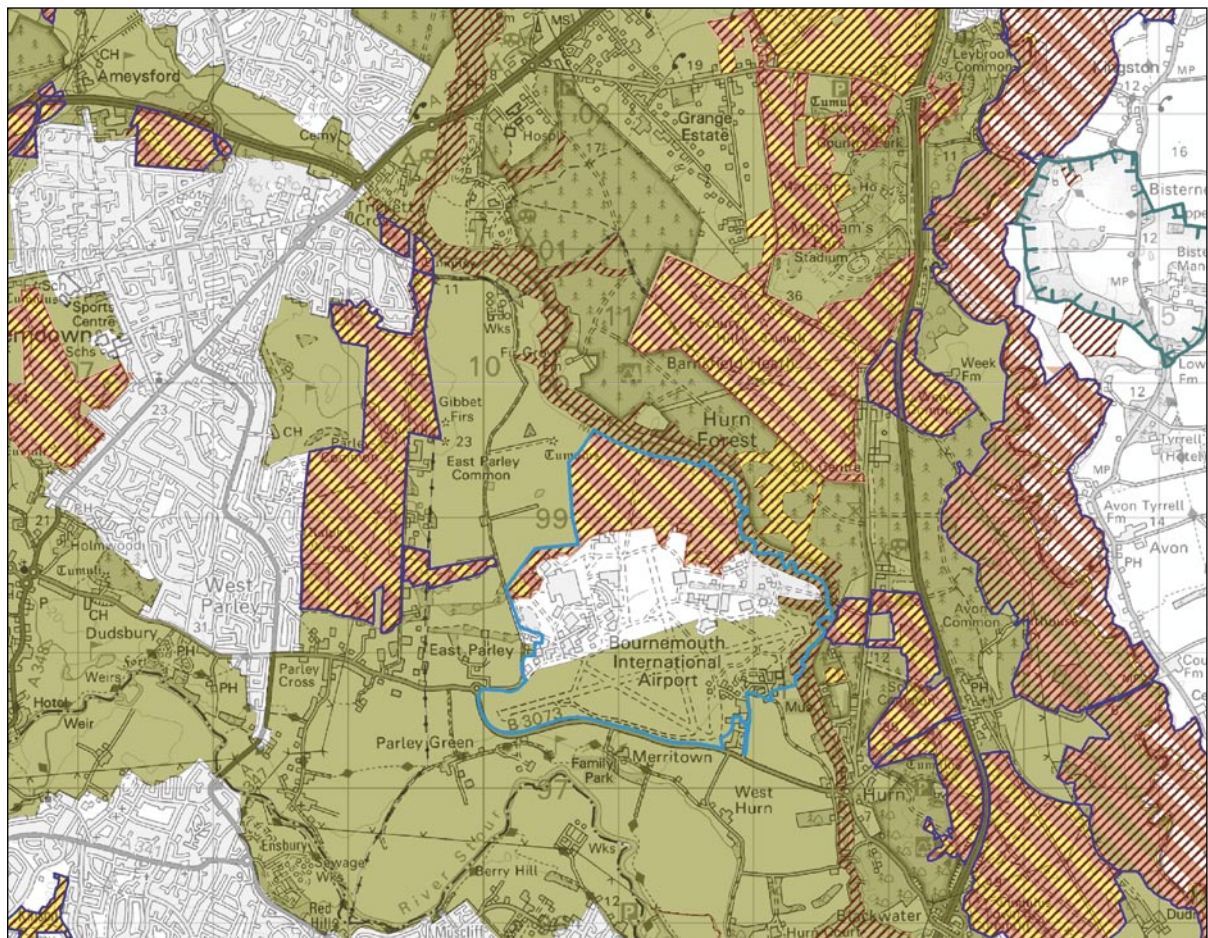


Figure 6.5: Ecological constraints and green belt



-  Manchester Airport Group's ownership
-  Ramsar
-  SPA
-  SSSI
-  SAC
-  Green belt
-  New Forest National Park boundary



7. The next steps

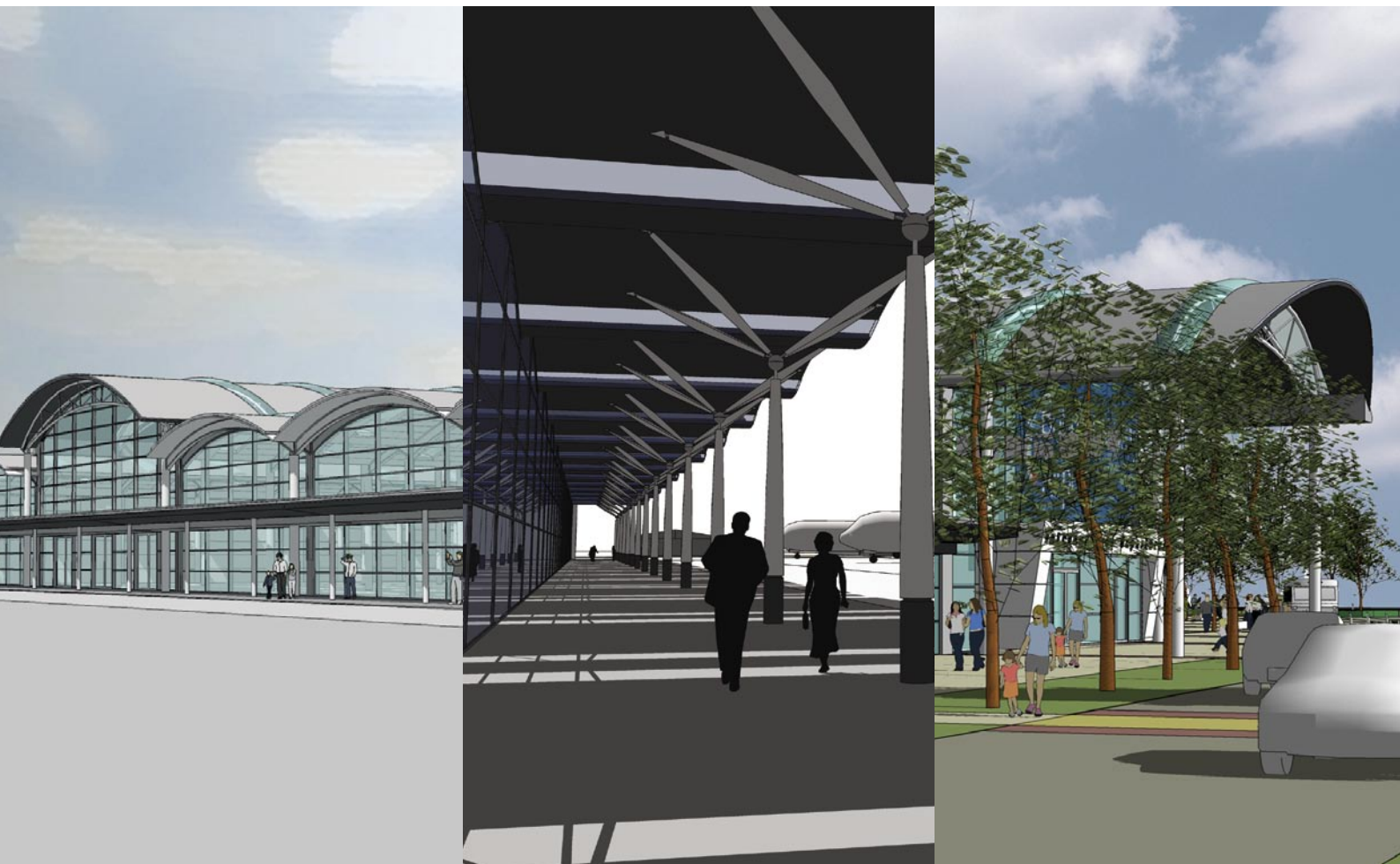
We will keep this Master Plan under review and report progress on meeting its targets and challenges to the Airport Consultative Committee. The Government's intention is that Master Plans are updated and rolled forward on a five yearly basis. We will work closely with local authorities to take the Master Plan proposals through the statutory plan making process.

Appendix 1: Consultees

Airport Consultative Committee
Airport Transport Forum
Bournemouth, Dorset & Poole Economic Partnership
Bournemouth Airport Service Partners
Bournemouth and West Hampshire Water Company
Bournemouth Borough Council
Bournemouth Chamber of Trade & Commerce
Bransgore Parish Council
British Waterways regional office
CAA
Christchurch Borough Council
Christchurch Community Partnership
Country Side Agency
Department for Transport
Dorset Business
Dorset Chamber of Commerce & Industry
Dorset County Council
Dorset County Council Economic Development
Dorset County Council Strategic Planning
Dorset County Council Transport Planning
Dorset Police (Eastern Division)
Dorset Strategic Partnership
Dorset Wildlife Trust
East Dorset Community Partnership
English Heritage
English Nature
Environment Agency
Forestry Commission
Friends of Earth
Government Office for the South West (GOSW)
Hampshire County Council
Highways Agency
HM Revenue & Customs
Hurn Parish Council
Learning and Skill Council
Mrs Annette Brooke MP
Mr Bob Walter MP
Mr Christopher Chope MP
Mr Desmond Swayne MP
Mr Giles Chichester MEP
Mr Graham Booth MEP
Mr Graham Watson MEP
Mr Neil Parish MEP
Mr Oliver Letwin MP

Mr Robert Key MP
Mr Robert Syms MP
Mr Tobias Ellwood MP
Network Rail
New Forest District Council
New Forest National Park Authority
New Milton Town Council
North Dorset District Council
Poole Borough Council
Purbeck District Council
Salisbury District Council
Scottish and Southern Energy
Sir John Butterfill FRICS MP
Sopley Parish Council
South West of England Regional Development Agency
South West Regional Assembly
St Leonards & St Ives Parish Council
The British Wind Energy Association
UK Immigration Services
Wessex Water
West Parley Parish Council





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