

London City Airport Interim Application

Environmental Statement Non-Technical Summary



RPS

LondonCityAirport 

August 2007

Introduction

London City Airport Limited (the Applicant) is applying for permission from the London Borough of Newham to vary conditions attached to the planning permission, first granted in 1985 and varied subsequently as the Airport has grown over the past 20 years. This is in order that the Airport can continue to develop in a managed way over the next few years, ensuring that the environmental impacts of its operations remain within acceptable limits.

This document is a Non-Technical Summary of the Environmental Statement submitted with the planning application (the Application). It is intended to be understood by professional and laypersons alike, so that they can gain an understanding of the main components of the Proposals in the Application and the likely significance of environmental effects which would occur were permission to be granted. The Environmental Statement was prepared following the completion of an Environmental Impact Assessment (EIA) by RPS and other expert consultants, on behalf of the Applicant.

This Application falls under section 73 of the Town and Country Planning Act 1990 (as amended) and, if granted, the variation of conditions will facilitate the projected growth of the Airport to around 2010. By this time, there are expected to be 120,000 aircraft movements per year accommodating some 3.9 million passengers, the majority of whom will be travelling for business reasons in line with the Airport's existing customer profile. The growth of the Airport will also continue to serve the travel, employment and other community-based needs of local residents and workers within Newham and neighbouring Boroughs.

With consent, the expansion in the Airport's business over the next three years is estimated to generate around 960 additional direct, indirect and induced jobs and an additional income of some £39 million per year into the local economy.

There are also forecast to be substantial, less readily quantifiable, benefits to the

local and wider London economy. These beneficial effects need to be balanced against some predicted increases in noise close to the Airport (both airborne and on the ground), changes to traffic on local roads, and other local effects which are a consequence of the general intensification of activity at the Airport.

The potential impact of the proposals on the regeneration potential of permitted and allocated sites in and around the Royal Docks area has also been considered and a separate Regeneration Statement prepared and appended to the Environmental Statement.

The growth aspirations of London City Airport are in accordance with national policy as expressed in the Government's Air Transport White Paper and its more recent Progress Report, whereby airports are urged to make maximum use of their existing runways and infrastructure in order to accommodate future demand without the need to build new runways. The longer-term aspirations of the Airport are for it to continue to develop, in a phased manner, up until 2030 as set out in a Master Plan that was published for consultation in March 2006, and finalised in November 2006.

This 'Interim Application' as it has been termed, is intended to allow for an initial phase of growth in aircraft movements and involves no new built infrastructure beyond that already existing or approved. The Application is in accordance with, although not dependent upon, the Master Plan proposals. The future, long term physical growth of London City Airport will be the subject of separate planning applications accompanied by environmental and other assessments, so that the planning authorities can judge those proposals on their own merits.

Nature of the Interim Application

The Applicant proposes to increase the number of overall aircraft movements from approximately 80,000 (scheduled and general aviation flights) to 120,000 by 2010, an increase of some 50% on the 2006 level of activity. However, most of these new flights are likely to be concentrated in the existing morning and late afternoon peak periods, rather than creating a significant increase in activity throughout the day. In this respect, the pattern of movements will remain much as today.

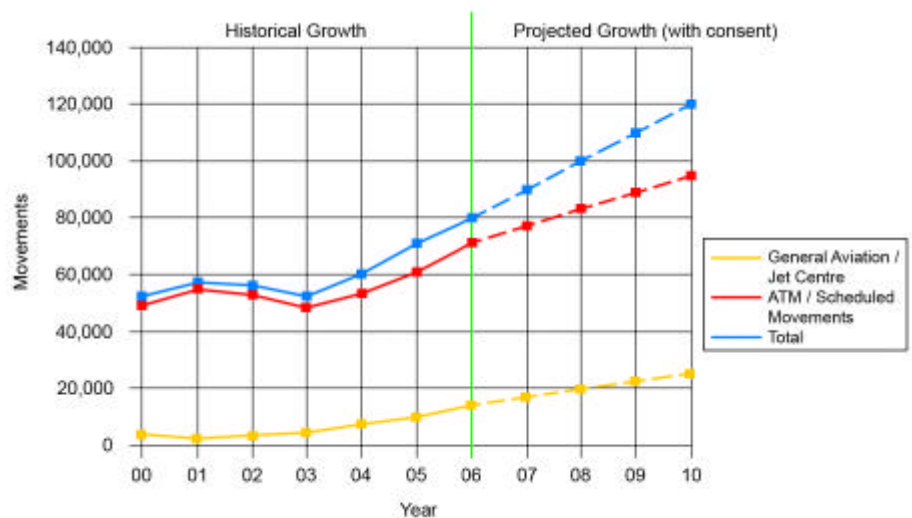


Figure 1: Growth of London City Airport 2000-2010

The existing limits allow for 73,000 Air Transport Movements (ATMs) per year, as defined by the existing planning permission, plus an unregulated number of general aviation movements, mostly comprising corporate jets from the corporate aviation building (known as the "Jet Centre"). The commercial airline and corporate aviation businesses have grown progressively over the past four years (See Figure 1). Corporate aviation refers to the ownership and operation of aircraft by individuals and companies in conducting their business and therefore not for public hire.

In 2006, there were approximately 13,700 aircraft movements from the Jet Centre, 62% of which were not classified under the ATM definition. The new limit of 120,000 per year will therefore bring all aircraft under a single total movement cap.

The Application also proposes to vary other planning restrictions including a related increase in the number of daily and weekly movements, and on bank holidays and other occasions. However, the hours of operation will not change, such that the 24 hour 'no-flight' period at weekends will be preserved and flights will not be allowed after 10.30pm or before 6.30am on other days, barring exceptional circumstances.

The Airport is also presently subject to a planning condition that limits the number of 'noise-factored' movements to 73,000 per year. This system works on the basis of allocating each aircraft type a 'noise factor' of A, B, C, D or E depending on its departure noise profile. So, for example, an A-rated aircraft counts as 1.26 movements whereas a B-rated aircraft counts as 0.63 movements.

Because of the type of aircraft that used the Airport when the system was first introduced (including a much greater proportion of smaller turbo-prop aircraft which are quieter on take-off but noisier on arrival), the annual noise-factored total tended to be lower than the ATM value.

However, this ratio has changed in recent years and in 2006 there were

approximately 71,000 ATMs and 72,200 noise-factored movements, reflecting the increasing numbers of modern turbo-fan/regional jets using the Airport. To accommodate this trend, a new limit of 135,000 noise-factored movements per year is being sought as part of the application.

Environmental Impact Assessment (EIA)

To identify the likely environmental effects of the proposals and to determine, where appropriate, the ways of avoiding, reducing, compensating or enhancing such effects (collectively known as 'mitigation measures'), an EIA study has been completed. A comprehensive Environmental Statement has been prepared which reports on the results of this process, in accordance with the Town and Country Planning (Environmental Impacts Assessment) (England and Wales) Regulations 1999.

The EIA considered both adverse and beneficial effects of the proposals, considering a range of topics such as: surface transport and access; noise from airborne, ground and traffic sources; air quality effects; socio-economics; and waste.

Certain topics, which are commonly considered in EIA studies of development applications, were deemed not to be relevant in this instance, principally because the Application does not include any building or physical works to the Airport. Also, because the Application relates to a continuation of existing operations at the Airport, albeit with an increase in the intensity of activity, many of the environmental and other management controls in place at the Airport already provide mitigation and so do not need to be re-examined. The effectiveness of such existing controls is borne-out by the good relationship the Airport has with the local community and regulatory authorities and the consistently low number of complaints received.

The proposed coverage of the Environmental Statement was set out in a Scoping Report submitted to the London Borough of Newham in April 2007. A draft Scoping Opinion was then issued by LBN on 21 June 2007. This 'opinion' has been taken into account in the final preparation of the

Environmental Statement and in other reports submitted with the Application, namely:

- Sustainability Appraisal and Carbon Analysis Report
- Planning Statement
- Regeneration Statement (appended to the Environmental Statement)
- Health Impact Assessment

These documents can be viewed at the London Borough of Newham Council Offices, together with the full Environmental Statement.

The following issues were not considered relevant to the EIA, or to the above additional studies:

- Townscape and Visual Effects
- Archaeology and Cultural Heritage
- Ecology and Nature Conservation
- Flood Risk, Water Quality and Ground Conditions
- Microclimate (Wind and Daylight/Sunlight)
- Vibration

Therefore, the above issues have been scoped-out of the EIA and an account is given of the rationale for their exclusion in a chapter of the Environmental Statement entitled "Non-significant Issues". The issues of energy and carbon dioxide emissions, whilst not considered to be *significant effects* in the context of the Application and the EIA Regulations, are nonetheless considered in detail in the Sustainability Appraisal and Carbon Analysis Report - the Airport shares the view of the Council that these are important concerns.

As part of the pre-planning consultation undertaken by the Applicant, meetings were held with various organisations including the LB Newham, Transport for London, the Government Office for London and other bodies. LB Newham also consulted various statutory authorities such as the Environment Agency, Natural England, London Thames Gateway Development Corporation, and the neighbouring boroughs of Greenwich and Tower Hamlets with regards to the proposed scope of the EIA. Their responses are included and addressed in the Environmental Statement.

The Site

London City Airport is located in the Royal Docks, between King George V Dock to the south and Albert Dock to the north. The Airport is approximately 9.5km (6 miles) east of the City of London, approximately 3.2 km (2 miles) east of Canary Wharf and approximately 800m (1/2 mile) from the ExCeL Exhibition and Conference Centre. The site is 48.5 hectares in size and includes a single runway, the 'apron' area (where aircraft park to embark and disembark passengers), a main passenger terminal, the Jet Centre, and other operational buildings. The runway is surrounded by the water of the Royal Albert Dock and the King George V Dock. See Figure 2 below.

In 2005, the Airport was connected to London's public transport rail system via a dedicated Docklands Light Railway (DLR) station which links directly into the Airport's main passenger terminal.

The Airport is also easily accessible by road, being located 1.6km (1 mile) from the A13, 4.8km (3 miles) from the North Circular (A406) and 24.1km (15 miles) from the M25. The Docklands Highway network links the Airport to Canary Wharf, Tower Hill and the centre of London. This transport network is illustrated in Figure 3 overleaf.

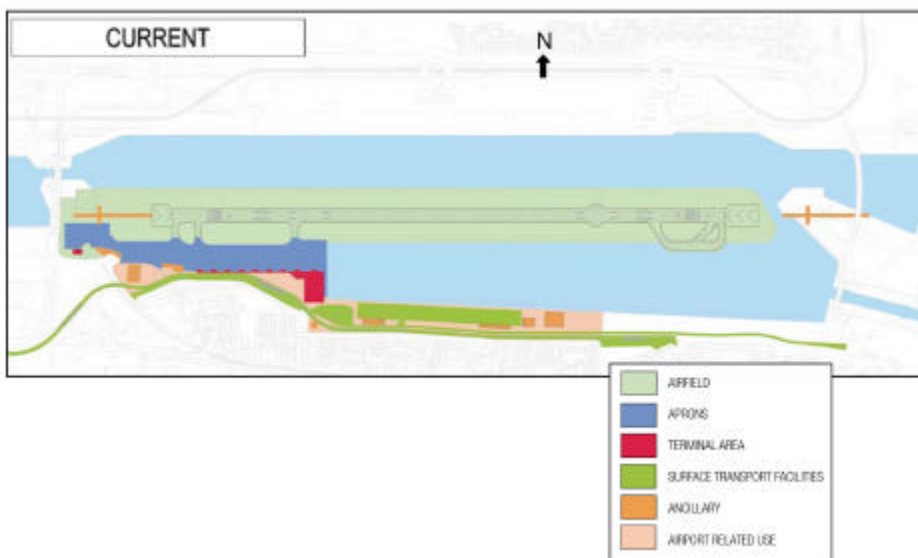


Figure 2: Current Site Configuration/ Land Uses

Current Operations

London City Airport serves a primarily business travel market, providing services to both domestic and European destinations. The Airport has grown progressively since its opening in 1987 and 12 airlines now operate services to over 30 destinations, catering for approximately 2.38 million passengers per annum (mppa) in 2006.

The Airport, due to its unique location, is a popular airport for European and domestic business travellers because of its ease of access, particularly to the City and Canary Wharf, and simplicity of use; being fast, efficient and friendly. The Airport's main passenger terminal provides facilities for scheduled airline services, whilst the Jet Centre provides a dedicated service for corporate aviation passengers.

The Applicant is committed to improving its already good environmental record and ensuring that the future growth of the Airport is delivered in a sustainable manner. A variety of measures to manage, minimise and report on the environmental impact of its operations already exist at the Airport as listed in the box opposite:

- Maintaining restrictions on flights outside the daytime period and for an uninterrupted 24 hour period at weekends.
- Operation of a Noise Monitoring and Flight Track Keeping System.
- Maintaining a steeper glide slope approach (5.5 degrees) for all aircraft.
- Minimising aircraft idle and taxiing times in conjunction with National Air Traffic Services (NATS).
- Continuous monitoring of air quality within the Airport site and the placement of air quality monitoring 'nitrogen dioxide diffusion tubes' at key locations around the Airport, including residential areas. The results of this monitoring programme are reported to the Council on a quarterly basis.
- Using electric vehicles and Fixed Electrical Ground Power (FEGP), thereby minimising the use of on-board Auxiliary Power Units (APUs).
- Encouraging aircraft operators to adopt quiet operating practices and to observe published noise abatement procedures.
- Maintaining a Sound Insulation Grant Scheme using a stringent eligibility criterion of 57 dB Laeq 16h - a lower limit than at any other UK airport.
- Implementation of a waste recycling scheme (with the objective of recycling 10% waste by the end of 2007 and a further 10% in 2008).
- Various water conservation measures including water-less urinals and sensor-driven taps systems, both airside and landside.
- A noise and environmental impact complaint handling system.
- Maintaining an Airport Consultative Committee.
- Various local training, education, recruitment/ job placements, community and charitable initiatives run by the Airport.
- Preparation and distribution of a Community & Environment Report (2007).



Figure 3: Transport Network

Interim Application - The Proposals

Context to the Application

In 2003, the Government published its Air Transport White Paper (ATWP) - 'The Future of Air Transport'. The White Paper sets out a strategic framework for the development of airport capacity in the UK over the next 25 years to 2030. The ATWP clarifies the need for new runway capacity in South East England and urges airports to make maximum use of existing runway capacity. These Government objectives were reiterated most recently in the ATWP Progress Report of December 2006 drafted after taking full account of the Stern Report.

In 2003, London City Airport Limited obtained planning consent for various 'operational improvements' including the construction of a runway hold (now built), an eastern apron extension for new aircraft stands (currently under construction), and an 8,750 sq m floor area extension to the Airport terminal building. The new stands are due to be completed in the next twelve months with the terminal building extension to follow.

In 2006, London City Airport handled 2.38 million passengers per annum (mppa). London City Airport Limited has determined that, without replacing the existing movement limits, the

further growth of the Airport will effectively be checked and the Airport will be unable to handle more than 2.5 mppa by 2010. The consequence of this 'without consent' scenario would be £39 million less income to the area and 957 fewer full time equivalent (FTE) jobs compared to the Proposals in the Application, and the displacement of passengers (and possibly airline operators) to other airports. This displacement of passengers and business would have secondary impacts in terms of increased journey times, less sustainable surface travel patterns and the possibility that new companies would be discouraged from locating in the Royals and other regeneration areas, as well as Canary Wharf and the City.

The Applicant has forecast that if planning permission were to be granted to increase the overall number of aircraft movements to 120,000, the Airport will be able to accommodate approximately 3.9 mppa by 2010. The environmental and socio-economic effects of this growth, measured for the 2010 'principal assessment year' and compared to the 'without consent' (or 'Base Case') scenario, have been reported in the Environmental Statement and are summarised Table 1.



Airbus A318

Baseline Conditions and Assessment Scenarios

2006 'Current Situation'

The 2006 calendar year has been adopted as the 'Current Situation' as this provides a validated set of data for aircraft movements and passenger throughput over a 12 month period, as shown below:

Scheduled Movements	GA/Jet Centre	Total Movements	Classified Air Transport Movements (ATMs)	Noise Factored Movements	Total Passengers (Pax)
65,860	13,756**	79,616	71,016	72,247	2,377,318

Table 1: Summary of Aircraft Movements During 2006*

*Please note that in the ES these figures may be rounded up for ease of interpretation.

**5156 (or 38%) of these movements were designated ATMs

2010 'Base Case' (Without Consent)

The 2010 Base Case (Without Consent) has been used to demonstrate the predicted growth of the Airport in the event that the Interim Application is not agreed. It is projected that the current limit of 73,000 noise factored movements and/or the equivalent ATM limit would be reached by the end of 2007 or early 2008. Only a very small increase (approximately 5%) in passenger numbers is expected by 2010 within the constraints of the current planning conditions. Further, limited enhancements would only be possible through improving scheduling efficiency and increasing the 'load factor' on aircraft, but the Airport itself cannot directly dictate either of these improvements.

ATMS/ Scheduled Movements	GA/Jet Centre**	Total Movements	Classified Air Transport Movements (ATMs)	Noise Factored Movements	Average Load factor (%)	Total Passengers (Pax)
66,000	14,000	80,000	71,000	73,000	58%	2,500,000*

Table 2 - Summary of Aircraft Movements in 2010 (Without Consent)

*assumes 1.6 Pax per GA movement = 20,800

**includes approximately 40% classified as ATMs.

The 2010 Base Case (Without Consent) is summarised in Table 2.

2010 Scheme (With Consent)

The 2010 Scheme (With Consent) has been used to demonstrate the predicted growth of the Airport by the year 2010 on the basis that all the proposed variations to the existing planning conditions are granted. Elevating the limit of aircraft movements to 120,000 would accommodate the continued growth and allow the Airport to handle approximately 3.9 mppa by the year 2010. This 120,000 total movements would be likely to comprise of the order of 95,000 scheduled airline movements and 25,000 Jet Centre movements - this fleet mix forms the 'Primary Assessment Case' in the EIA.

Scheduled Movements	GA/Jet Centre	Total Movements	Noise Factored Movements	Average Load factor (%)	Total Passengers (Pax)
95,000	25,000	120,000	135,000	55%	3,900,000

Table 3 - Summary of Aircraft Movements in 2010 'With Consent'

The 2010 (With Consent) assessment case is summarised in Table 3.

Sensitivity Testing

Although the Primary Assessment Case outlined above gives the most likely mix of aircraft by 2010, the total cap of 120,000 allows for different outcomes. In other words, the business demand from either the commercial airlines or the Jet Centre could exceed expectations. The EIA has therefore considered two further scenarios within a range that might be considered plausible, although unlikely. These are presented as 'sensitivity tests' in order to determine whether the impacts associated with such scenarios would be materially different from the Primary Assessment Case of 95,000 scheduled movements with 25,000 GA/ Jet Centre movements.

The two additional 2010 (With Consent) scenarios are as follows:

- 85,000 scheduled airline movements and 35,000 GA/Jet Centre movements, delivering approximately 3.5mppa; and
- 105,000 scheduled airline movements and 15,000 GA/Jet Centre movements, delivering approximately 4.3mppa.

The ES concludes that the environmental effects of these two scenarios would not be significantly different from the Primary Assessment Case.

The following sections provide a summary of the EIA findings for the main assessment topics.



London City Airport DLR

Surface Transport and Access

The ES has considered the potential effects of the proposed increase in aircraft movements, and the corresponding increase in passenger numbers travelling to and from the Airport, on the surface transport system to the year 2010. The Proposals have also been assessed against relevant national, regional and local transport policies. It was concluded that the proposal meets the transport objectives of relevant policies in terms of accessibility, transport effects, sustainability measures and design.

London City Airport is currently accessible by all modes of transport, and in particular, by public transport modes. Approximately 65% of the passengers arriving and departing from the Airport travel via the DLR, taxis and buses, whilst the remaining passengers use private, rented and chauffeur-driven vehicles. The Surface Transport and Access assessment has evaluated the increase in passengers travelling to and from the Airport in 2010, and has determined the likely impacts of this increase on all modes of surface transport, in both the 'with' and 'without' consent scenarios.

The assessment highlights that the current capacity of the DLR to accommodate the predicted increase in passenger numbers is sufficient and would equate to less than a 6% increase in total DLR passenger numbers. Furthermore, the extension of the DLR to Woolwich Arsenal by 2009 will provide additional capacity and improve access to the Airport, particularly for passengers travelling from the south-east.

The Proposal has also been assessed in terms of its impact on road traffic, although no extra car parking is required or proposed. It was found that the Proposals are likely to have only a minor impact on the local road network as additional traffic resulting from the increased passengers travelling to and from the Airport is predicted to be generally less than 5% on all roads serving the Airport.

The two closest road junctions to the Airport were also tested using standard computer modelling programs and both were found to have spare capacity. No significant queues or delays were predicted to arise from the Proposals, and the impacts here can therefore be considered negligible.

As no built works or changes to existing facilities are required to accommodate the increase in aircraft movements, there will be no effects from construction vehicles on the local road network as a result of the Proposals.

The Applicant proposes to implement an update to their Travel Plan (a draft of which is included in the ES) building upon its Surface Access Strategy of 2005, with the objective of increasing the proportion of staff using public transport.

Air, Ground and Road Traffic Noise

The ES has considered the likely effects of air noise, ground noise and road traffic noise as a result of the proposed increase in aircraft movements.

Air Noise

'Air noise' generally refers to the noise produced by aircraft that are either airborne or on the runway during take-off or after landing. The impact of air noise has been assessed using noise contours which represent levels of noise exposure radiating outwards from the Airport, expressed as dB LAeq,T values. This measure is an index of aircraft noise exposure and refers to equivalent continuous sound pressure level. It averages noise impacts and the frequency of flights to present an overall picture of airport noise over the day.

The assessment has been carried out having regard to relevant national, regional and local noise policies, particularly Planning Policy Guidance 24: Planning and Noise (PPG 24). PPG24 defines four Noise Exposure Categories (NEC) that range from A to D and indicate to what extent noise should be considered in the granting of planning permission for new residential developments. This guidance is equally useful in assessing changes in the noise environment on existing housing, as is the case in this instance.

The guidance contained in PPG 24 suggests that daytime air noise should be taken into account when it exceeds 57 dB LAeq,16h, which is regarded as the onset of significant community annoyance. As such, air noise



Aircraft taxiing at London City Airport

impacts have been assessed by identifying the relative changes to the area, and associated population numbers, within this lower contour (i.e. 57dB Laeq 16h). In addition, air noise impacts have been considered in terms of the 'perceptibility' and significance of changes in air noise exposure around the Airport. In line with the guidance provided in PPG 24, a change of 1 to 3 dB(A) is considered the minimum perceptible noise level under normal conditions.

The assessment identified that with the Proposals, noise contours would increase in area by approximately 50%. The number of residential dwellings within the 57 dB contour would increase from approximately 3,300 in 2006 to 6,600 in 2010. Dwelling numbers within the 63 dB contour are predicted to increase from approximately 100 to 700. This is the level that most airports start their noise insulation schemes. No dwellings become exposed to noise levels of 69 dB or more under the Proposals.

The assessment concluded that overall, the increase in noise would be between 1 dB and just under 3 dB. The impact of this change is considered to be minor, although a greater number of people will fall within the 57 dB LAeq,16h contour, the noise level regarded as the onset of significant community annoyance.

To mitigate these impacts, London City Airport Limited will continue to implement its Sound Insulation Grant Scheme and provide treatment to dwellings that fall within the 57 dB LAeq,16h noise contour, such that internal noise levels are reduced by not less than 25 dB.

Ground Noise

Ground noise encompasses the noise produced during the ground operations of aircraft at the Airport, such as taxiing, manoeuvring and running engines. Ground noise generation at the Airport is heard in the context of off-airport ambient noise sources, such as road traffic, industrial activities and the DLR.

The proposed increase in aircraft movements will have a corresponding increase in airside activity on the ground. A

detailed ground noise assessment was therefore undertaken to assess this effect.

At present, residential dwellings surrounding the Airport are well protected from any significant effects of ground noise by a barrier formed by the Airport terminal and pier structure as well as the DLR. Blast screens, recently erected between the western end of the pier and the Jet Centre, also assists in reducing the effects of ground noise on surrounding dwellings.

The noise assessment found that the increase in ground operations of aircraft at the Airport would result in slight increases in ground noise for all locations in close proximity to the Airport. The impact of these changes is predicted to be minor and, for residential dwellings, ground noise levels will remain within recommended noise criteria. As is the case currently, ground noise levels along the northern edge of the Royal Albert Dock will continue to be relatively high in view of its close proximity to the Airport and the absence of any dedicated noise barriers.

Road Traffic Noise

The Proposals will affect existing road traffic noise conditions on local roads as a result of a greater number of staff and passengers travelling to and from the Airport, as well as a general intensification of service vehicle traffic. A detailed assessment of this noise source has been undertaken, having given consideration to PPG 24 guidance regarding daytime road traffic noise and using conventional noise modelling techniques.

No road alterations are required as part of the Proposals and, therefore, it is considered that any changes in road traffic noise would only occur as a result of changes to the vehicle flows along the existing local road network.

The assessment concluded that, given the relatively low levels of additional traffic likely to be attracted to the road network as a result of the Proposals (see Surface Transport and Access section above), the commensurate increase in road traffic noise levels would be very small (less than 1 dB), which represents a negligible impact.



Air Quality Monitoring Equipment at London City Airport



Nitrogen dioxide diffusion tube

Air Quality

The Environmental Statement has considered the potential air quality effects on the environment as a result of the proposed increase in overall aircraft movements. These effects have also been considered having regard to relevant national, regional and local planning policies, in particular, the Government's Air Quality Strategy and Planning Policy Statement 23: Planning and Pollution Control (PPS 23).

London City Airport lies outside of, but adjacent to, an Air Quality Management Area (AQMA) that has been designated by the London Borough of Newham. Developments within AQMAs require particular attention to be paid to any potential air quality impacts.

The assessment focused on two pollutants with respect to potential human health effects, namely nitrogen dioxide (NO₂) and fine particles (PM₁₀), as these pollutants are of the greatest concern. Consideration was also given to the potential effects of odour nuisance.

The assessment found that the Proposals would increase oxides of nitrogen (NO_x) and PM₁₀ pollutant emissions by a small amount, both from increased road traffic flows on the local road network and due to a general intensification of airside operations. These two sources are considered below:

Emissions from Airport Operations

Emissions of NO_x and PM₁₀ pollutants may arise from a number of airport sources including:

- Aircraft on stand, taxiing to and from the runway, and during takeoff and landing;
- Airside vehicle movements e.g. baggage handling and catering; and
- Stationary sources e.g. boiler plant

The potential impacts of airport sources are related to the scale of operations defined in terms of annual passenger throughput. The Airport's operational capacity with the proposals will remain below 5 mppa, the figure set by the Government (DEFRA) as being the point above which such direct airport emissions could have an adverse

effect on local air quality and therefore need to be assessed in detail. Given that the Airport's future operations will continue to fall below this threshold criterion, impacts are considered to be insignificant.

Despite not crossing these thresholds, LCY already constantly monitors air quality and reports these results quarterly to the London Borough of Newham.

Emissions from Road Traffic

The impacts of changed traffic flows on the local road network, including Airport car parks, were assessed using an advanced air quality dispersion model widely used in the UK for the assessment of road traffic impacts.

With the Proposals, the predicted concentrations of NO₂ and PM₁₀ will increase by a small amount due to the increased traffic flows on the local road network. Therefore, the assessment considered the likely air quality effects on 'sensitive receptors' (agreed with Environmental Health at London Borough of Newham). These sensitive receptors were selected to be representative of locations where any air quality effects from road traffic would be expected to be the greatest.

The assessment found that predicted concentrations of both NO₂ and PM₁₀ would be below the National Air Quality Strategy objectives at all sensitive receptors. The air quality impact is therefore predicted to be very small, even at the 'worst-case' receptor location.

Odour Nuisance

Odours associated with airport operations originate from incomplete combustion of the kerosene fuels that are used in the gas turbine engines of aircraft. Such odours are generally associated with the operation of aircraft idling at stands or taxiing to and from the runways where engines are operating at low power. Airport odours present no health risk and are not generally considered offensive at low concentrations, but can become unpleasant as the exposure increases.



Employment opportunities at London City Airport

The assessment of odour effects has considered the complaints received by the Airport management and the Council. London City Airport Limited investigates all complaints related to odour nuisance and, where possible, takes action to prevent future recurrence. The complaints records show that the management and response to odour nuisance has been successful and very few substantiated complaints are received each year. The screens recently installed at the west end of the Airport are designed to assist in the dispersal of both emissions and odour.

It is considered that the proposed increase in aircraft movements is unlikely to result in a higher frequency of complaints received.

Socio-economics

The likely socio-economic effects of the proposed increase in aircraft movements were assessed as part of the EIA. A 'core study area' was defined, comprised the following local authorities - Barking and Dagenham, Bexley, Greenwich, Hackney, Havering, Lewisham, Newham, Redbridge, Southwark, Tower Hamlets, and Waltham Forest. The core study area represents the area that could be expected to experience the greatest direct economic impact from the Proposals.

The core study area has an average rate of unemployment of 3.8% compared with 3% for London as a whole. In 2004, seven of the eleven local authorities within the area were listed within the top 50 most deprived districts in England. In addition, the study area (in 2005) had a lower percentage of qualified people of working age in all areas (from NVQ Level 1 to 4) when compared with London as a whole, and a higher percentage of people with no qualifications at all.

In 2006, the Airport related employment in the core study area was estimated at 1,501 direct jobs, 284 indirect jobs and 185 induced jobs, which amounts to a total of 1,970 full time equivalent (FTE) jobs. The income generated from this employment was estimated as approximately £59.3m in the core study area.

In the event that the proposal was not agreed, Airport activity would support an additional 62 jobs over current levels. Acceptance of the proposal would increase this number by a further 957 jobs. In that case, by 2010, the Airport would support 2277 direct jobs, 430 indirect jobs and 282 induced jobs - a total of 2989 FTE positions. The associated income has been estimated as £103.8m. Therefore, the employment and economic impact of the Proposals is considered to be substantial and beneficial.

As well as the direct, indirect and induced employment benefits, economic benefits were also assessed in terms of the 'global connectivity' that the Airport provides to the whole of London, and the way in which this connectivity acts as a magnet for a wide range of economic and social activities. This effect is generally referred to as the 'catalytic impact' of an airport. It was concluded that that the growth of the Airport has particularly contributed to the regeneration in the Docklands and the establishment of the strong business and financial services cluster at Canary Wharf, and that further growth will continue to support this wider impact. This effect is also considered in detail in the Regeneration Statement, appended to the Environmental Statement.

The ability of London City Airport to contribute to wider economic development was also evaluated by considering the implications of the Airport not being able to expand to meet increasing demands for travel as a result of population and employment growth in the core study area. This is measured in terms of the additional journey time costs imposed on displaced air travellers who would have to access alternative airports. These potential 'journey time penalties' were calculated and it was found that the cumulative annual journey time penalties between 2008 and 2010 would equate to a Net Present Value of £87m.

Waste

The ES assessed the likely environmental effects associated with additional waste generated from the proposed increase in aircraft movements at the Airport. These effects have also been considered in the context of relevant national, regional and local planning policies, in particular the Government's National Strategy for Waste (Waste Strategy 2007).

With the Proposals, total waste is estimated to be approximately 1700 tonnes, which is an increase of 570 tonnes from the current wastes generated and approximately 530 more than the 2010 Base Case. Given that passenger throughput at the Airport is forecast to increase from 2.38 mppa to 3.9 mppa by 2010, the overall amount of waste produced per passenger is predicted to reduce to 0.436kg/passenger. The impact of this additional waste generated by the Proposals is considered to be negligible.

Summary of Mitigation and Residual Effects

The Environmental Statement has identified the existing and future mitigation and enhancement measures that London City Airport Limited, as the Applicant, proposes to implement in order to address the environmental effects resulting from the Application. The likely residual effects and the significance of such effects have also been determined.

Overall, the Proposals in the Application have been demonstrated to have generally negligible or minor adverse environmental effects, which can be largely controlled by the application of, and where necessary improvement to, existing monitoring and management systems at the Airport. This should be considered relative to the substantial beneficial effect the Proposals will have in the local and wider economy of Newham, Docklands, the City of London and elsewhere.

Cumulative Effects

An assessment has been undertaken of the likely cumulative effects of the Proposals with other permitted or allocated development schemes on identified sensitive



Recycling facilities at London City Airport

receptors located within the vicinity of the Airport. It has been concluded that, overall, the potential for combined effects is low and that any such will be negligible or minor adverse at worst. A full consideration of the potential impacts of the proposals on the future regeneration of the wider area is provided in the Regeneration Statement appended to the Environmental Statement.

Further Information

The full ES is available for inspection at the planning office of the London Borough of Newham. The address of this office is:

Development Control Service
London Borough of Newham Council
Environmental Management Services
Town Hall Annexe
330-354 Barking Road
East Ham, London
E6 2RT

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