ENVIRONMENT

SUSTAINABLE DEVELOPMENT PLAN 2015

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london stansted airport

PART OF M.A.G

CONTENTS

INTRODUCTION

The Stansted Airport Sustainable Development Plan (SDP) is an important document for our airport. It sets out our vision for Stansted's growth of its single runway capacity and addresses some of the key challenges we face in operating a successful airport.

The Stansted Airport Interim Master Plan was published in May 2006 by BAA, the previous owners and operators of Stansted. The Interim Master Plan set out the strategic direction for Stansted as a single runway airport up to 2015 by which time the airport was expected to be serving some 35 million passengers. Since the publication of the Interim Master Plan, the aviation industry and the wider economy have been through major changes. This has had an impact on the rate of aviation growth, both at a national level and at Stansted specifically.

Since acquiring Stansted in February 2013, Manchester Airports Group (M.A.G) has set out a new vision for the airport and we are committed to delivering sustainable growth in its activities. The new SDP is our framework and master plan for growth of the airport based on the capacity of its single runway. It sets out the strategic context for the business, as well as some of the key challenges that we face. A key purpose of the plan is to provide guidance and information to airport users, occupiers, developers, statutory agencies and the local community.

This version of the SDP has been finalised following extensive consultation carried out from June until November 2014. We produced a draft version for consultation with stakeholders and local communities as part of our commitment to engage fully within the region we serve.

The consultation responses and the comments of those who attended the Outreach events were generally positive in support of growth to the maximum capacity of the single runway within our current airport boundary.

Understandably, there were detailed points about the likely impacts of increased aircraft movements and in particular night noise. Concerns over congestion on local roads and quality of rail services were also commonly expressed.

Importantly, there was wide ranging support for our Economy and Surface Access Plan and our Community Plan. Our targets of improving rail connectivity to London and Cambridge and our focus on educational attainment and employment opportunities in the communities served by the airport were welcomed.

The majority of local authorities and stakeholders recognised Stansted's important contribution to the local and regional economy. Many responses supported our efforts to broaden the range of airlines and routes; our positive approach to partnership working; our community outreach programme; the renewed investment in airport facilities; and a positive change in management culture under M.A.G's ownership.

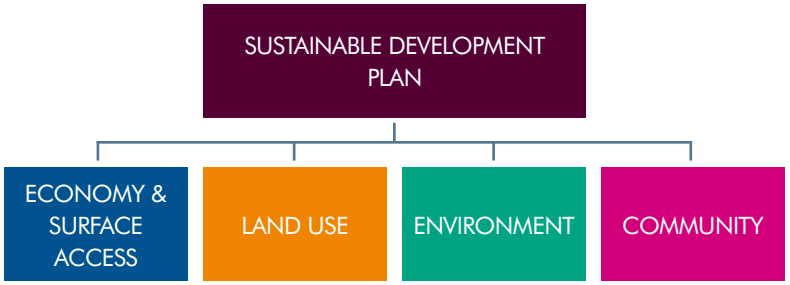
Details of the consultation process and its outcomes are contained within a separate document, the "SDP Consultation Review". This report covers the process, the responses and how we have dealt with the comments received. We are grateful to all those who have helped shape our SDP.

INTRODUCTION

The SDP sets out the strategic objectives for the growth and development of Stansted. These were supported by stakeholders and run throughout the Plan and underpin our proposals. They are:

- To make Stansted the best London airport;
- Proactively plan for growth to make best use of existing capacity;
- Support economic growth in the region;
- Actively manage and contain environmental impacts;
- Be active and supportive partners in the local community; and
- Maintain Stansted's position as the best in the UK for public transport use.

The SDP comprises four detailed plans that cover the economic context and the surface access proposals for developing our single runway growth strategy, the land use implications and how we intend to develop our environmental and community programmes:



The SDP is a document that will evolve. As such, we will keep the SDP under review so that it remains relevant and reflects the evolution and the development of Stansted Airport. This reflects Government guidance in the 2013 Aviation Policy Framework. The review will be undertaken at least every five years.

OUR ENVIRONMENT PLAN

We recognise that the operation and development of our airport has environmental impacts ranging from a global level to those experienced more locally in relation to aircraft noise, local air quality and landscape. At M.A.G we place great emphasis on reducing our impact on the environment and balancing our operations as a commercial airport operator.

This Environment Plan sets out our approach to managing the impact of operations on the environment, from reducing carbon emissions to managing and controlling our impacts relating to water, waste, ecology and noise.

In developing this Plan we have sought to identify measures we will take to address these impacts and how we will continue to work in partnership with all the companies on our site to manage and reduce environmental impacts of the airport. The Plan identifies priorities where we will focus our efforts, alongside a range of aims we seek to achieve and targets we will use to continuously monitor and review our performance.

There are a number of important areas where we have been able to take a more optimistic future view than was possible previously. In particular, the advance of aircraft and vehicle technology and the outlook for further improvements in the lifetime of this Plan suggest future noise impacts will be lower than previously assumed and we are confident that local air quality will remain well within the Government's limits.

Stansted is the third largest airport in London and currently handles 20 million passengers per annum (mppa). The airport is firmly positioned as the market leader for low-cost short haul travel in the South East, serving more than 160 destinations in 30 countries. With a strong network of services, the airport provides London and the East of England with valuable international connectivity, predominantly to short haul European and North African markets.

Stansted is a key gateway for the UK and is an important point of entry for non-UK residents arriving by air. Over half of Stansted's passengers are foreign nationals travelling either on business, visiting friends and family or on holiday. This reinforces the important role the airport plays in providing international connectivity both to and from the region .

Over 230,000 tonnes of cargo were transported through Stansted in 2014 helping to connect the economy of London and the region with the global marketplace. Stansted is the busiest airport for all-freighter traffic among the London airports, and is the most significant hub for express freight within the important London market. The airport's express freight market, anchored by key operators such as FedEx and UPS, is the second biggest in the UK.

Stansted is the largest single-site employer in the East of England employing over 10,000 people across 190 on-airport companies. The airport provides a wide range of employment opportunities and supports economic activity throughout the wider supply chain, both within the region and further afield throughout the UK.

[1]CAA passenger survey (April 2013 – March 2014).

OUR APPROACH

CONTEXT

The operation and development of our airport has environmental impacts. These range from those experienced at a global level in terms of its greenhouse gas emissions to those experienced more locally in relation to aircraft noise, local air quality and landscape. Such impacts need to be well understood and carefully managed and mitigated.

The range of environmental impacts result from:

- day-to-day operations and new development;
- aircraft movements both in the air and on the ground;
- aircraft support services such as maintenance, catering, cleaning and fuelling;
- ground-support vehicles and equipment, both in operation and in maintenance;
- air cargo handling;
- passenger terminal operations including retail, catering and cleaning;
- building operations and management;
- management of the airport estate; and
- passenger and staff travel to and from the airport site.

Some of the impacts are a direct result of our own activities, but many are as a result of the operations of our airlines, service partners and tenant customers. As the owner and operator of the site, we take a lead responsibility for these impacts wherever it is practical for us to do so. In fulfilling this responsibility we seek to work in partnership with all of the companies on our site to influence, support and help manage and reduce their environmental impacts. This is so that collectively we can achieve regulatory compliance, minimise our overall impact and meet our environmental targets and obligations.

ENVIRONMENTAL POLICY

At M.A.G we believe that successful environmental management incorporates every area: so as well as reducing carbon emissions, we also work hard to manage and control our impacts relating to water, waste, ecology, noise and land use.

In our Corporate Social Responsibility Report[2] we set out our strategic objective for the environment. This states that:

> **We will make best use of natural resources and minimise the environmental impact of our operations.**

In order to achieve this, we will:

- develop and grow our business in a managed and sustainable manner optimising the economic and social benefits of the airport, whilst limiting the impact on the environment;
- work across all business areas to engage the combined skills and energy of all our employees;
- facilitate a constructive and open dialogue with all stakeholders, including local communities;
- maintain an environmental management system that targets key areas and audits and monitors performance in a challenging and critical way; and
- comply with the requirements of environmental legislation and other requirements at all times and to prevent pollution and reduce our contribution to climate change.

Environmental Management is part of the airport's Managing Responsibly System which defines a coordinated approach to managing health and safety, environment and security.

[2] 2013-14 Corporate Social Responsibility Report (2014) M.A.G.

OUR APPROACH

ENVIRONMENTAL POLICY

In developing this Plan we have assessed the policy framework within which we operate. Our plans and policies are also set in the context of the existing planning conditions and legal agreements for future airport development.

We will undertake an appraisal of all proposed major developments in order to understand and mitigate environmental effects and to ensure that we incorporate up-to-date standards and best practice into the design.

Where possible we have set a number of important high-level targets. We will continue to refine and build upon this suite of targets.

ENVIRONMENTAL MANAGEMENT SYSTEM MODEL FOR THE ISO 14001 INTERNATIONAL STANDARD

A broad range of environmental targets were developed and put in place by the previous owners and the airport has a positive track-record of effectively managing its environmental impact. A best-practice approach to environmental management is in place through the international standard ISO 14001. The structure of this is shown to the right.

ENVIRONMENTAL MANAGEMENT

Our ISO14001 certified Environmental Management System is designed to ensure we have measures in place to manage our environmental effects and continually improve our environmental performance.

These measures include:

- processes and procedures to manage our own activities, where we have a suite of work instructions and guidance to support our operational teams which are updated regularly;
- objectives, targets and detailed plans for each environmental topic area such as our energy efficiency and recycling programmes and the Stansted Noise Action Plan;
- contracts, licenses and other airport operating requirements which ensure our business partners and contractors adhere to our environmental policies and local requirements, such as our ground handling licenses which include environmental protection requirements and the audits we carry out on our third-party activities to facilitate working together as well as driving continual improvement;
- design and development standards to ensure environmental impacts and opportunities are taken into account and managed in our infrastructure development and refurbishment programmes;
- incorporating environmental specifications into our procurement of goods and services;
- implementing the 'polluter pays' principle by passing on clean-up costs to offenders, financially incentivising recycling and waste reduction and penalising poor practice;
- providing training and awareness to our staff to ensure that they understand the impact their role has on the environment and the measures they need to take to minimise environmental impact and to comply with environmental legislation; and
- engaging in regular constructive communication and dialogue with key stakeholders, our local communities and with others that have an interest in the airport, including external groups such as the Stansted Airport Consultative Committee (STACC) and its sub-groups, the Environment Agency (EA) and other regulators and with local authorities.

ENVIRONMENTAL MANAGEMENT

MONITORING AND REPORTING

We have a number of systems and processes for monitoring, measuring and analysing our environmental performance. These help our understanding of our environmental impacts as well as demonstrating our compliance with legal and other requirements. We use various systems and modelling techniques as well as regular sampling and analysis. Our monitoring includes:

- aircraft noise and track keeping monitoring systems along with noise modelling provided by the Civil Aviation Authority (CAA). This displays noise levels in terms of "noise contours". This is overlaid on a map of the airport and its surroundings to enable us to see which areas are most affected and to see how the airport's noise impact is changing;
- water quality sampling and analysis of our water discharges as well as ecological monitoring of surrounding watercourses;
- air quality monitoring for key pollutants and modelling of the overall impact the airport has on local air quality. We periodically update our airport-wide emissions inventory which provides additional information on sources and extent of our air emissions;
- metering of energy consumption and calculating the contribution of energy related emissions to our carbon footprint. We have a programme of upgrading our energy monitoring to a smart metering system which will give us improved information on our energy consumption and help prioritise future energy reduction measures;
- an annual airport carbon footprint which includes the impact of our own operations as well as the contribution of activities we can influence such as aircraft and surface access; and
- monitoring and reporting of waste and recycling data. We report on waste and recycling monitoring to our operational departments.

We have prioritised the key areas (described later in the Plan) where we will focus our efforts. We set key performance indicators and targets to enable us to continuously monitor and review our performance.

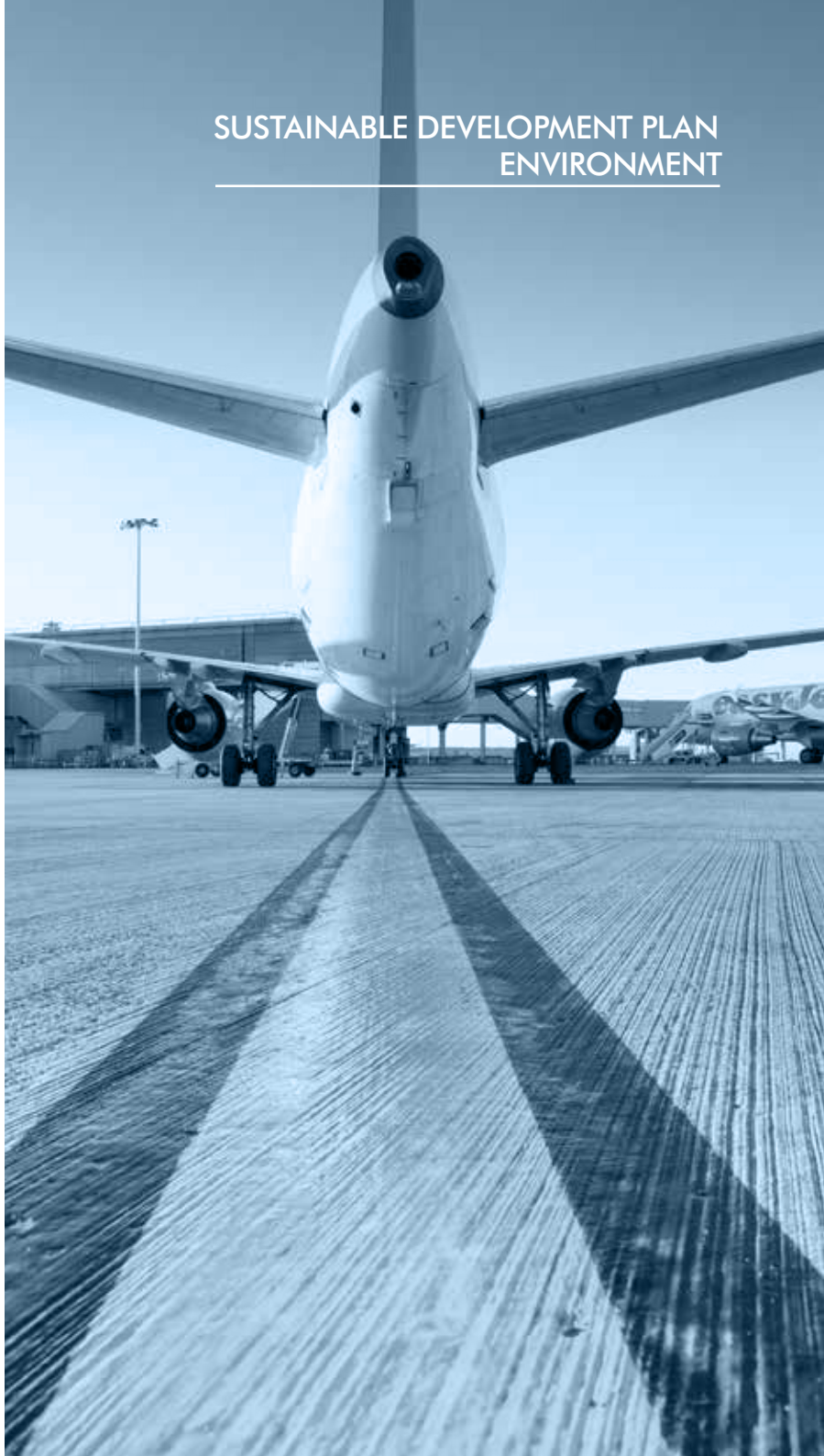
In line with our policy of open and transparent reporting, the performance against all of these indicators will continue to be reported annually within our Corporate Social Responsibility Reports and we will work with local authorities to develop a new local reporting regime.

ENVIRONMENTAL MANAGEMENT

BENCHMARKING

We also undertake regular audits of our own, our service partners' and our contractors' facilities and activities to check compliance with our standards and work with them to deliver improvements. Whilst we work in partnership with our service partners to avoid breaches of standards, we will use enforcement measures where necessary, including fines, to ensure environmental performance.

Our policies and targets will not stay static, and will respond to changes in the aviation industry, legislation and Government policy, and costs. We regularly review industry best practice and benchmark ourselves against similar organisations. We meet and report regularly to our regulators and other stakeholders, such as the local authorities (Uttlesford District Council and Essex County Council), the Environment Agency and local Environmental Health Officers. Our environmental policy and management system is subject to an annual management system review by the airport's senior management team. They will also be set in the context of the wider commitment to sustainability made by M.A.G



OUR OBJECTIVES

CLIMATE CHANGE

Reducing greenhouse gas emissions by increasing energy efficiency and obtaining energy from renewable and low carbon sources remains a priority. Building upon our work to date, our priority will be to deliver further efficiencies, by continuously reducing our energy demand and where possible using energy from renewable sources through on-site generation. We will also purchase renewable electricity wherever possible.

CONTEXT

We acknowledge that, although outside our direct control, the airport can have a significant influence over other activities which contribute to climate change such as: emissions from aircraft; vehicle trips; and those associated with the activities of other companies operating at the airport. We are committed to working in partnership with our key stakeholders to develop policies and systems which will reduce and manage the contribution of these activities to climate change.

We recognise that our ecology plans and green spaces on the airport can also have a positive impact on climate change; we will take this into account as we further develop our ecological strategy.

Aviation is responsible for a relatively small proportion of greenhouse gas emissions. It is estimated that aviation contributes less than 2% of global greenhouse gas emissions[3]. Airports in turn, contribute around 5% of these aviation emissions. The forecast growth of air transport and efforts to de-carbonise other industries means that aviation emissions are likely to rise to around 3% of total global emissions by 2050.

Some of these emissions are within the airport's direct control, for example, our own energy use for heating, cooling and lighting the buildings or those from the fuel used within our own vehicles. Whilst other emissions are not within the airport's direct control, we do have a degree of influence over their production, for example energy used by on-site tenants and emissions generated by aircraft whilst on the ground.

In recent years, substantial progress has been made to reduce greenhouse gas emissions at Stansted by reducing demand for energy and making use of renewable energy generation.

[3] Stern Review on The Economics of Climate Change (2006), HM Treasury.

CLIMATE CHANGE

LEGISLATIVE AND POLICY FRAMEWORK

International agreements are led by the Intergovernmental Panel on Climate Change (IPCC), which was established by the United Nations. Negotiated under the leadership of the IPCC, the Kyoto Protocol formed the basis for initial climate change legislation resulting in a targeted reduction for the UK of 12.5%. This target was significantly strengthened by the Climate Change Act (2008) which requires the UK to reduce greenhouse gas emissions by 80% (compared to 1990 levels) by 2050 with an interim reduction target in carbon dioxide (CO_2) emissions, of 26% by 2020.

Government's Aviation Policy Framework requires that '…the aviation sector makes a significant and cost-effective contribution towards reducing global emissions'[4]. Intra-European flights have been included within the EU Emissions Trading System since 2012, with flights covered by the scheme subject to an emissions cap. Airlines can either reduce their own emissions or purchase allowances or credits from other sectors where options for reducing CO_2 emissions are easier and cheaper to deliver. In 2013, significant progress was made at the UN International Civil Aviation Organisation (ICAO) towards the introduction by 2020 of a global mechanism to address aviation greenhouse gas emissions.

M.A.G is a founding member of Sustainable Aviation, which is the first alliance of its type in the world representing a cross section of the UK aviation industry, including aircraft and engine manufacturers, airlines, airports and air navigation service providers. In 2008, Sustainable Aviation published a Carbon Roadmap, updated in 2012.

The Roadmap demonstrates how UK aviation can accommodate significant growth to 2050 without significantly increasing CO_2 emissions. Also by participating in market based policy measures, it will be possible to reduce absolute emissions by 50%, from 2005 levels. The Roadmap establishes the role that each part of the aviation industry can play in reducing the emission of greenhouse gases. We are committed to implementing the Roadmap both with regard to our own operations and supporting others, particularly our airline colleagues, to deliver on their commitments.

The term 'greenhouse gas' (GHG) refers to a number of substances that retain heat within the earth's atmosphere, which in turn contribute to climate change. The Kyoto Protocol specifies six gases, which are cumulatively referred to as GHGs:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (NO);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulphur hexafluoride (SF_6).

Whilst CO_2 is the most widely reported GHG, the climate change impacts of other gases are also important. GHG emissions can be reported individually for each substance however it is often helpful to consider the impact of emissions relative to those of CO_2. To provide a single measure of GHG emissions, emissions are often reported in terms of 'carbon dioxide equivalent' (CO_2e).

[4] Aviation Policy Framework (2013), Department for Transport paragraph 2.4

OUR OBJECTIVES

CLIMATE CHANGE

OUR APPROACH TO MANAGING CLIMATE CHANGE

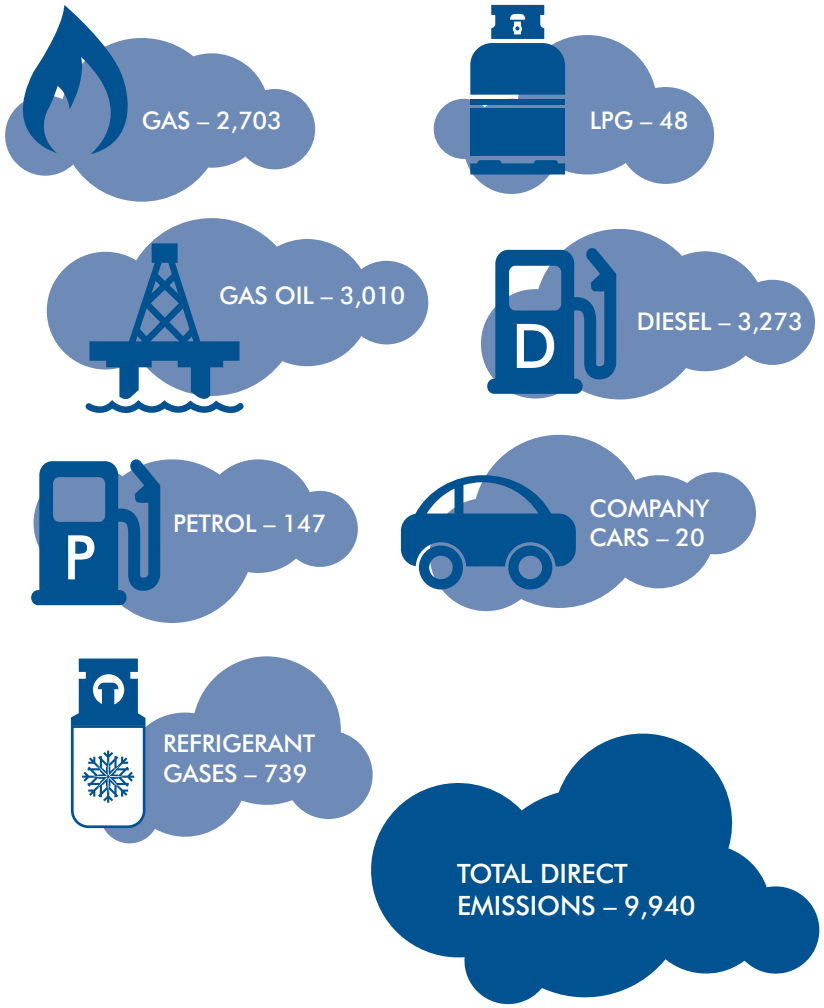
Our approach to reducing carbon emissions from our own operations is to:

- reduce the overall demand for energy through energy efficiency measures and controls and by engaging staff and other airport companies in these initiatives;
- invest in low energy and low carbon technology such as low-energy lighting and fuel efficient vehicles, and where possible meet remaining energy requirements through renewable or low carbon energy technologies such as solar power or biomass; and
- monitor and measure our energy performance, targeting areas of high consumption or emissions.

Stansted is a large consumer of energy, using approximately 88,000 MWh of electricity and gas every year. The majority of this is electricity (87%) which remains our priority for reduction measures. Our energy reduction programme has seen demand reducing by 9% in the last four years.

This is a significant reduction but there is still more to do.

DIRECT CO_2 EMISSIONS BY SOURCE (TONNES) 2013/14[5]



[5] 2013-14 Corporate Social Responsibility Report (2014) M.A.G.

OUR OBJECTIVES

CLIMATE CHANGE

The challenges we face arise from:

- new development;
- increase in passenger numbers;
- maintenance, improvement and refurbishment of airport buildings;
- passenger and staff travel;
- types of vehicles used on site; and
- types of aircraft operating from the airport.

We are committed to taking advantage of opportunities for implementing new, more energy efficient and low carbon technologies and controls. The reductions that we have achieved to date are the result of a sustained effort to challenge energy use in all parts of our operations and focus on areas of high consumption. Our programme has included measures to improve the way we use buildings and infrastructure, so that plant and equipment is switched off whenever it is not needed. We have also made substantial investments in modern, low-energy plant and equipment, in particular: modifying air handling units; chilling plant; and introducing low-energy lighting.

OUR OBJECTIVES

CLIMATE CHANGE

CASE STUDY

In 2014, we completed our first major LED lighting refurbishment programme. We have converted the lighting in our terminal service road tunnel to LED which has led to a reduction in energy used and carbon emissions and has dramatically enhanced the working environment by providing an improved quality of light. We will be upgrading other key areas over the coming year including the large baggage hall.

It is our policy that all new buildings and major refurbishment will automatically include low energy lighting such as LED; for example in the new security search area and in the new toilet facility.

We have made improvements to our ventilation and cooling systems in the main terminal by upgrading our plant to include invertors and improved airflow sensors and controls. We are upgrading a large number of pumps and motors to be more reliable as well as more energy efficient.

Partnership working is vital to successful energy management and we work closely with our business partners to encourage energy efficiency in their facilities and operations.

Alongside reducing consumption, we are using more energy from renewable sources where practical. In 2014, we switched our electricity supply to a 'green energy' tariff, so all electricity is now generated from biomass and exempt from the Government's climate change levy.

Implementing renewable energy technologies could deliver a substantial reduction in carbon emissions, whilst also meeting commercial thresholds and operational requirements. In 2008, we installed a 2MW biomass boiler which at the time was an early example of such technologies in an airport setting. However, the original boiler has experienced a long series of technical difficulties which have limited its recent operation. Significant progress has been made in boiler design over recent years, as well as other renewable sources, and we are currently reviewing our future options.

Accurate data is important to identify priorities and to measure, demonstrate and report the impact of our work. In recent years we have invested heavily in our metering equipment and monitoring software. We are working across M.A.G to share best practice in energy metering, monitoring and targeting.

Our work in this area has been recognised by the Carbon Trust and we have held their standard since 2010. More recently we have received accreditation under ACI's Airports Carbon Accreditation Scheme. These best practice standards allow us to benchmark our performance and help to drive further improvements. We also have processes in place to ensure we comply with legal requirements for emission reporting and building energy performance.

CARBON TRUST

airport carbon accreditation
MAPPING | REDUCTION | OPTIMISATION | NEUTRALITY

OUR OBJECTIVES

CLIMATE CHANGE

Reduced emissions have come from work with air traffic control (NATS) and airlines to introduce best practice measures such as continuous descent approach (CDA). More than 90% of aircraft that land in a westerly direction (using runway 22) now achieve CDA and this procedure alone is estimated to save more than 2,300 tonnes of CO_2 per annum. At Stansted, many arriving aircraft (to runway 04) are currently unable to adopt CDA due to congestion within surrounding airspace. Changes delivered by NATS should remove this constraint. We will work with NATS to ensure that such innovations are carefully designed and with appropriate public consultation delivered as quickly as possible.

Travel to and from the airport by passengers and staff can generate significant carbon emissions. We aim to reduce these by remaining one of the best performing airports for public transport use (51%). Full details can be seen in the Economy & Surface Access Plan. Public transport use continues to be an important part of our strategy for reducing the associated direct and indirect causes of carbon emissions.

For some passengers and employees, public transport will not be a convenient option and we recognise that many will continue to rely on private cars and taxis. However, we are committed to improving the attractiveness of public transport through a range of initiatives, such as discounted travel for both passengers and airport workers and by working with bus, coach and rail operators to ensure scheduled services match working patterns where possible. Where public transport is not the chosen mode, the provision of car parking will be supported to reduce the number of journeys arising from 'kiss and fly' and taxi use which generate double the number of journeys compared to passengers parking at the airport.

OUR OBJECTIVES

CLIMATE CHANGE

vision GREEN
For a sustainable Stansted

OUR STRATEGY

Our goal is to build on our progress to date, to drive ever greater energy efficiency and to use more energy from renewable sources, both on and off-site. This will support a broader aim of working towards making our airport operations carbon neutral.

REDUCING ENERGY DEMAND

Our priority is to reduce our demand for energy by a further 15% in the next five years (using the airport's energy demand from 2013/14 as the base). Against a backdrop of substantial growth, we believe this will be a very challenging target and we will report progress annually. Whilst this target applies to our own energy consumption, we will work with our business partners on site to support, encourage and incentivise reductions in their energy consumption and carbon emissions.

To achieve this target we will ensure that new developments incorporate the best energy efficient design, materials and technologies. Our second target is for new main buildings to achieve a rating of 'Excellent' using the Building Research Establishments Environmental Assessment Methodology (BREEAM). BREEAM has become the industry standard for the performance of new buildings. Where the nature of buildings makes it difficult to achieve BREEAM 'Excellent', such as light industrial space or hangars, we will set a target of 'Very Good'.

We will continue to engage with staff, contractors and business partners through our Vision Green campaign to raise awareness of energy and broader environmental impacts of the airport, encourage energy efficient behaviours at work and at home and to recognise colleagues who have been actively involved in delivering improvements.

INVESTMENT IN LOW CARBON AND RENEWABLES

The majority of our energy will continue to be procured from the major generators. There is significant potential to meet more of our energy needs from on-site generation, using renewable fuels and technologies. We will undertake a wide-ranging review of options, including biomass and combined heat and power systems. Whilst it is premature to establish a target, we will set out a clear strategy for renewable fuel use. This approach can reduce emissions and could significantly increase our operating resilience.

We will continue our programme of upgrading existing buildings, plant and equipment to be more energy efficient and to extend the life of our assets. This includes upgrades to lighting, heating, cooling and ventilation systems as well as implementing efficient controls for passenger equipment such as lifts and escalators. We also aim to increase the energy efficiency of our IT and server systems.

Energy efficiency and emissions will be part of our procurement processes. This could include considering the fuel type and consumption of new operational vehicles or sourcing products and services locally to reduce emissions, pollution and waste and to provide economic and social benefits by working where possible with businesses and suppliers in the local area.

OUR OBJECTIVES

CLIMATE CHANGE

MONITORING, TARGETING AND REPORTING

Our metering and monitoring is an essential part of our strategy and supports our plans for demand reduction. We will continue to deploy smart metering with the aim of connecting all buildings on the airport to our energy data management system.

We will set annual targets for energy reduction to support our longer term targets and we will regularly report progress.

This year the Government introduced enhanced carbon reporting requirements for listed companies. Although M.A.G is a privately owned company and therefore not subject to these requirements, we will mirror this best practice and report our carbon emissions annually, consistent with the World Resources Institute Greenhouse Gas Protocol.

COMPLIANCE AND STANDARDS

We will continue to comply with voluntary standards including the Carbon Trust Standard or equivalent and the ACI carbon award scheme. We will develop our energy management system alongside our broader environmental management system in line with the new international energy management standard (ISO50001).

WORKING IN PARTNERSHIP AND INFLUENCING OTHERS

Addressing our own emissions in isolation is not sufficient and it is important for us to influence emissions associated with our business partners. We support the Carbon Roadmap, published by Sustainable Aviation. We will continue to work with NATS (our air traffic control provider) and our airlines to make our airfield operations as efficient as possible and to promote the use of best practice, such as CDA.

We aim to lead by example and we will share our learning with others across the site and in the local area. We intend to work with other on-site businesses to identify and reduce emissions and we believe that the new Airport Community Network will provide a practical forum to do so. Our supply chain spending is substantial and we believe that by understanding more clearly the implications of our decisions, we will be able to work collaboratively to further reduce indirect GHG emissions.

ADAPTING TO CLIMATE CHANGE

It is now widely accepted that a degree of climate change is unavoidable. As a business making long term investments in strategic infrastructure, it is important that we understand how to minimise the impact of our own operations and how to adapt our operations to minimise the risks posed by climate change. We undertook a first adaptation risk assessment in 2011 and we will review the findings of this exercise periodically, or at least every three years, to account for emerging thinking in this area. The review process will identify and involve key stakeholders.

OUR OBJECTIVES

CLIMATE CHANGE

AIMS

- Continue to reduce our energy consumption through improved operational controls and investment in energy efficient technology;
- Work with our business partners to encourage and support reductions in their energy consumption;
- Assess opportunities for developing on-site renewable energy sources with a goal to increase our take up of renewable fuels;
- "Design in" energy efficiency into new development and refurbishments;
- Continue to calculate and report on our carbon emissions (footprint);
- Continue to improve our energy metering, monitoring and reporting across the site; and
- Review and update our climate change adaptation plans.

TARGETS

- Reduce our absolute energy demand by a further 15% in the next 5 years;
- New buildings to target a BREEAM rating of 'Excellent', with a minimum standard of 'Very Good';
- Smart metering across the site over next 5 years; and
- Maintain our compliance with the Carbon Trust Standard, ACI carbon award scheme or equivalent.

LOCAL AIR QUALITY

Air quality is an important issue, particularly for local communities. Emissions from road vehicles are the dominant source of air quality emissions in the UK and this is evident in the local area which lies between the busy M11 and A120 roads.

CONTEXT

Airport related emissions of oxides of nitrogen (NO_x) and particulate matter have the greatest impact on air quality within the airfield perimeter, where the operation of aircraft and ground support vehicles is most intense and in areas close to the passenger terminal where passengers are arriving and leaving.

Our long-term monitoring is extensive and consistently shows that levels of airborne pollutants meet the appropriate standards at the perimeter of the airport. We will seek to minimise emissions and ensure that concentrations of pollutants remain below the relevant national thresholds.

Most on-site emissions are produced as a result of our service partners' operations and whilst we continue to work collaboratively with them, these are therefore outside our direct control. The air quality around the airport is also affected by other sources, such as road traffic generated locally.

To help reduce emissions we are improving air quality assessment and monitoring, influencing airlines to cut emissions from aircraft, and reducing emissions generated by ground vehicles.

There are a number of different pollutants. These are generally produced during combustion and include: oxides of nitrogen (NO_x and specifically nitrogen dioxide NO_2); particulate matter (PM_{10}); volatile organic compounds (specifically non-methane VOCs); carbon monoxide (CO), sulphur dioxide (SO_2), lead (Pb); benzene (C_6H_6); 1, 3-butadiene, and; ozone (O_3).

At much higher concentrations than those experienced or projected for Stansted, these pollutants can cause some people to experience eye irritation, lung irritation and breathing difficulties. Some pollutants contribute to the formation of ground level ozone, a secondary pollutant that is also harmful to health. In addition, pollutants such as NO and SO_2 contribute to acid and nutrient deposition at off-site natural ecosystems, which can be harmful.

LOCAL AIR QUALITY

The main airport related sources of emissions are well known. They are:

- Staff and passenger journeys;
- Aircraft engine emissions during taxiing, taking off and landing, auxiliary power unit (APU) operation and engine testing;
- Exhaust emissions from operational vehicles;
- Energy generation equipment: diesel generators and boilers;
- Fugitive emissions (evaporation) during fuelling of vehicles and aircraft; and
- Miscellaneous emissions from activities such as aircraft fire training.

Particulate (PM_{10}) concentrations in the region can even be raised by sources outside the UK. Carbon dioxide (CO_2) is also produced by many of the same sources of air pollutants. CO_2 does not affect local air quality but it is the principal gas causing climate change. This is covered in the Climate Change chapter of this Plan.

LEGISLATIVE AND POLICY FRAMEWORK

INTERNATIONAL

Globally the ICAO sets emission standards for aircraft engines.

In order to protect health, the EU and UK Government have set air quality limit values and objectives. The EU limit values are defined by the Ambient Air Quality Directive[6], and applied in England through the Air Quality Standards Regulations[7]. The national objectives are set out in the UK Air Quality Strategy (AQS)[8].

In common with other forms of transport, including road traffic, the pollutants and objectives most relevant to airport operations are NO_2 and PM_{10}. Most pollutants have a short term (hourly or daily) objective and also a long term (annual) objective that reflects the scientific assessment of impact on health. The limit values are set out below.

AIR QUALITY LIMIT VALUES (INFORMATION FROM AIR QUALITY STANDARDS REGULATIONS (2010)

Measured as	Concentration
Nitrogen dioxide (NO_2)	
Annual mean (long-term)	40 μgm^{-3}
1 hour mean (short-term)	200 μgm^{-3} (18 exceedances per year permitted)
Particulate matter (PM_{10})	
Annual mean (long-term)	40 μgm^{-3}
24 hour mean (short-term)	50 μgm^{-3} (35 exceedances per year permitted)

[6] Directive on ambient air quality and cleaner air for Europe (2008/50/EC).
[7] Air Quality Standards Regulations (2010) (as amended).
[8] The Air Quality Strategy for England, Scotland, Wales and Northern Ireland – Volume 1 (2007), Department for Environment Food and Rural Affairs.

LOCAL AIR QUALITY

NATIONAL

The Aviation Policy Framework sets out the Government's policy for aviation. Government policy is '…to seek improved international standards to reduce emissions from aircraft and vehicles and to work with airports and local authorities as appropriate to improve air quality, including encouraging HGV, bus and taxi operators to replace or retrofit with pollution-reducing technology older, more polluting vehicles'[9].

LOCAL

Local authorities assess air quality and identify any areas within their jurisdiction where air quality objectives are not being met. In these areas, a local authority is required to declare an Air Quality Management Area (AQMA) and an action plan to restore compliance. Monitoring and assessment undertaken by Uttlesford District Council has concluded that just one AQMA should be established; this relates to road traffic in Saffron Walden and is largely unrelated to operations at the airport. An AQMA was declared in 2007 by East Herts District Council for NO_2 in a small area in the centre of Bishop's Stortford, which is unrelated to airport operations.

OUR APPROACH TO MANAGING AIR QUALITY

To protect and where possible improve local air quality we will:

- develop a Surface Access Strategy that continues to promote a shift away from private car use towards more sustainable forms of travel;
- continually review and adapt our operational practices to seek to minimise polluting emissions;
- undertake regular monitoring for key pollutants, within the wider context of the Air Quality Strategy for England and Wales to contribute to the control of local air quality;
- periodically model future air quality to ensure that development of airport operations does not compromise local air quality; and
- make the results of our monitoring and modelling publicly available.

[9] Aviation Policy Framework (2013), Department for Transport, paragraph 3.48.

LOCAL AIR QUALITY

MONITORING AND REPORTING

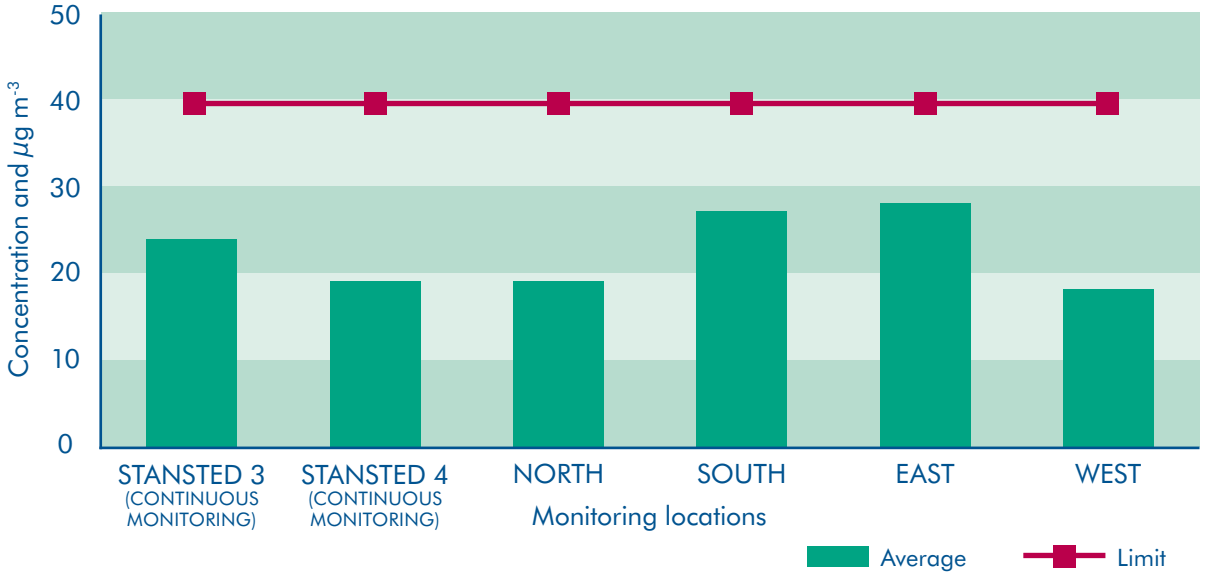
Air quality has been monitored for many years, with a focus on the two pollutants of greatest interest, NO_2 and PM_{10}.

For NO_2 we operate two air quality monitors that record continuously, supported by a network of diffusion tube monitors located at the perimeter of the airport. These provide an estimate of the average concentration of NO_2 over the course of a month. As shown below, monitoring has consistently demonstrated that concentrations of NO_2 are within the relevant air quality limit value.

For PM_{10} a single reading monitor records continuously. This monitor is located just outside the eastern perimeter of the airport. It is close enough to detect effects relating to airport emissions. It is also close to vulnerable receptors, being located in a nursery school car park. The A120 runs approximately 1.5 km to the south of the site.

The results demonstrate that air quality is well within the appropriate air quality limit value. In 2013, an annual average concentration 19 ($\mu g\ m^{-3}$) was recorded. This compares to the annual average air quality limit value of 40 ($\mu g\ m^{-3}$).

NITROGEN DIOXIDE (NO2) CONCENTRATION 2013



LOCAL AIR QUALITY

MINIMISING EMISSIONS

Vehicle Fleet

Increasingly stringent emissions standards associated with new vehicles in the EU have seen this fleet become cleaner over the years. A newer standard, Euro VI, applies to heavy duty vehicles certified from 2014. This standard will deliver an 80% reduction in NO_x emissions and a 50% reduction in particulate emissions compared to Euro V. We will continue to modernise our vehicle fleet to benefit from these underlying technical improvements.

A range of low emission vehicles are now on the market and manufacturers are working on further developments including improvements to electric vehicles and hydrogen powered vehicles. We will aim to introduce low emission vehicles within our fleet wherever it is viable to do so.

Airside Vehicles and Equipment

The majority of airport vehicles are operated by third parties such as airline handling agents. We will influence them to operate cleaner fleets.

All vehicles operating on the airfield undergo regular inspections as part of the CAA requirements (CAP 642). This includes an emissions test. Further, ad-hoc, daily inspections are undertaken by our operations team. They also enforce our vehicle 'switch off' policy, ensuring that stationary vehicles have their engines turned off.

Aircraft

Within the airfield, aircraft exhaust emissions are the largest single source of NO_2. The extensive use of fixed electrical power units minimises the use of aircraft auxiliary power units (APU's), which can be an important source of pollutants. In the longer term, technological advances are the key to reducing aircraft emissions. ICAO set emission standards for aircraft and engine manufacturers.

Surface Access to and from the Airport

Road transport emissions contribute significantly to air quality in the UK. Full details of our work on surface access can be seen in our Economy and Surface Access Plan.

LOCAL AIR QUALITY

THE OUTLOOK FOR FUTURE AIR QUALITY

Future air quality will be determined by changes in two components:

- the background air quality, as determined by local, regional and national influences, including changes to the vehicle fleet; and
- the contribution from the airport.

To estimate the effect of growth, we commissioned independent modelling. We assumed a passenger throughput of 43 million passengers per annum and a corresponding increase in the frequency of aircraft operations and road traffic access. As this level of throughput is estimated to occur no sooner than the mid-2030s, we have also modelled operations at 2025. To provide a worst case assumption, we assumed a passenger throughput of 35 million passengers at 2025. All modelling has been undertaken by independent experts using the ADMS-Airport (version 3.2.4) atmospheric dispersion model.

The concentrations of NO_2 are currently the highest of any pollutant, relative to limit values, although nowhere around the airport is compliance currently at risk. Nationally, emissions of NO_x will continue to decline, because of changes in power generation and the introduction of Euro VI emissions standards for road vehicles, especially heavy duty vehicles. Our modelling concludes that for representative areas in the vicinity of the airport, concentrations of NO_2 will continue to be well below the relevant air quality limit. The results are summarised in the figure to the right. It can be seen that, over time, levels of NO_2 are predicted to fall in all assessed areas.

PREDICTED NO_2 CONCENTRATIONS (μG/M3) AT SELECTED LOCATIONS

ID	Location	2013 Basline	2025 Operation	2040 Operation
A	Gaunt's End	20.0	15.3	16.1
B	Molehill Green	19.4	15.3	16.1
C	Takeley	17.1	11.9	12.5
D	Burton End	25.6	15.6	16.5
E	Birchanger	17.5	12.1	12.4
F	Bishop's Stortford	17.8	12.0	12.3

Annual average concentrations of particulate matter (both PM_{10} and $PM_{2.5}$) are not as high as NO_2, as a proportion of the respective limit values (40 μg m^{-3} and 25 μg m^{-3}). The measured value at Takeley was 13 μg m^{-3} for 2009, for example. However, Defra projections indicate that future concentrations will not decline in the same way as for NO_2; this pollutant is less responsive to control measures on emission sources, which are wide ranging and beyond the UK, in some cases.

LOCAL AIR QUALITY

This general position has been confirmed by our detailed air quality modelling, which has found that levels of PM_{10} show only minimal change at all of the representative areas considered in the vicinity of the airport. The results, which are summarised in the table below, show that any change is no more than 0.5 $\mu g\ m^{-3}$ and that all locations remain well below the relevant air quality standard.

PREDICTED CHANGE IN ANNUAL MEAN PM_{10} CONCENTRATIONS AND ASSOCIATED IMPACT DESCRIPTORS

ID	Location	Change ($\mu g/m3$)	Relative Change	Impact Descriptor
A	Gaunt's End	0.5	Small	Negligible
B	Molehill Green	0.5	Small	Negligible
C	Takeley	0.2	Imperceptible	Negligible
D	Burton End	0.3	Imperceptible	Negligible
E	Birchanger	0.1	Imperceptible	Negligible
F	Bishop's Stortford	0.1	Imperceptible	Negligible

To assess the significance of the estimated change in PM_{10} levels, our advisers have drawn on current guidance[10]. Using this guidance any changes have been deemed to be negligible.

High levels of oxides of nitrogen (NO_x) can also adversely affect vegetation, including leaf or needle damage and can also reduce plant growth. Hatfield Forest National Nature Reserve (NNR), a Site of Special Scientific Interest (SSSI) to the south and Elsenham Woods, SSSI to the northeast are both vulnerable sites in the vicinity and our modelling has specifically considered these sites.

Across most of the country, deciduous forests experience nitrogen deposition rates which are at levels above the critical threshold at which some changes to habitats would be expected. Our baseline modelling suggests that this was the case for both Hatfield Forest Nature Reserve and Elsenham Woods in 2011. In order to explore the effect of airport development on these sensitive sites we have modelled the predicted increase in nitrogen deposition that would be expected to result from future growth. Our modelling finds that any increase is, at worst, around 1% of the critical load for these habitats. As such no significant increase in levels of nitrogen deposition is anticipated and no significant impacts upon the habitats and species present at these sites.

Government air quality standards also include a specific NO_x limit of 30 $\mu g\ m^{-3}$ to protect vegetation. Our modelling has also considered the predicted levels of NO_x at both sites, finding that both remain below the relevant standard.

[10] Environmental Protection UK (2010) Development Control: Planning for Air Quality.

OUR OBJECTIVES

LOCAL AIR QUALITY

OUR STRATEGY

We will continue to monitor air quality and make the results freely available. We will also periodically update our forecasts and, as appropriate, use further detailed air quality modelling to ensure that predicted levels of air quality will remain within the appropriate limits.

Our drive for operating efficiencies in airfield operations will ensure that emissions from aircraft operations are minimised. Future vehicle technologies offer reduced emissions and we will monitor developments closely to ensure that we play a leading role in new technology trials and encouraging uptake by our on-site business partners.

Our work to improve the way our passengers and our colleagues access the airport is summarised in our Economy and Surface Access Plan. This closely related work will also serve to minimise the contribution that airport development will make to local air quality.

AIMS

- Continue to monitor and report air quality in the vicinity of the airport;
- Reduce air pollution;
- Reduce emissions generated by ground vehicles and aircraft;
- Continue to promote the use of public transport to access the airport; and
- Work with business partners to minimise the impact of aircraft operations.

TARGETS

- Update detailed air quality modelling for forecast activity levels at least every five years; and
- Remain within the appropriate air quality limit values.

NOISE

For those living closest to the airport and its flight paths, aircraft noise can be intrusive and disruptive. Night noise is a particular concern and we will continue to mitigate and manage this to limit the impact upon local communities.

CONTEXT

We will work with partners including community groups, airlines, air traffic control and Government to understand and minimise the impact of all aspects of noise and drive forward change where possible. We set a high priority on controlling noise and to openly reporting our performance. Our long-term aim and commitment[11] is to manage, and reduce where possible, the number of people affected by noise as a result of our operations.

M.A.G and Stansted have a strong track record of taking action to reduce the environmental impact from our operations. The main source of noise is from aircraft in the air and on the ground. Other sources of noise include road traffic, ground support equipment or construction activity.

We have operated a sophisticated noise and radar track monitoring system for a number of years. Since 2007 this system has included a radar replay service, which enables anyone to log on to our website to see radar recordings that identify our aircraft and where, when and how high they flew.

The main three London airports are 'designated' by central Government for noise control. As such there is a greater degree of centralised control than at most other UK airports. Many of the noise controls are imposed by Government or subject to agreement with them. Stansted also operates within various noise controls set out in its planning permissions. Full details are in our Noise Action Plan (NAP)[12], which has been recently reviewed and updated.

In this chapter, we summarise the main points from our NAP and set out our thinking on how the management of noise can be improved. Our proposals are challenging and reflect the priority that we attach to managing noise. We work closely with all our aircraft operators to improve operational procedures, including track keeping performance, which plays a significant role in reducing noise impacts on local communities.

[11] Stansted Noise Strategy and Action Plan Revised for 2013-2018 (2013), M.A.G, page 17
[12] Our Noise Action Plan is available separately at: www.stanstedairport.com/about-us/stansted-facts-and-figures/our-performance/sustainability

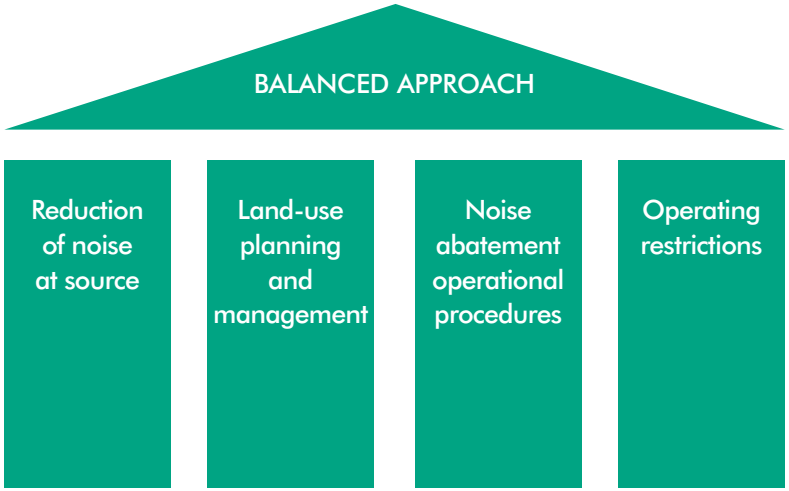
NOISE

LEGISLATIVE AND POLICY FRAMEWORK

Aircraft noise is controlled by a complex set of national and international policies, agreements, regulations and requirements.

INTERNATIONAL

The International Civil Aviation Organisation (ICAO) is the international body that sets noise emission standards which aircraft must meet in order to enter service. ICAO has also set an approach to managing noise which has been adopted world-wide. This 'balanced approach' has four key components.



EUROPEAN

An EU directive (EC 2002/30) requires all member states to adopt the ICAO 'balanced approach' and ensures that any prohibition of 'noisier' aircraft types is strictly controlled in accordance with a detailed set of rules.

The EU has also introduced an Environmental Noise Directive (END) for transport (2002/49/EC). The END seeks to harmonise the way noise is measured and assessed and requires all major airports to produce a Noise Action Plan (NAP). The NAP describes the noise impact of an airport and the controls that are employed to minimise it. Our NAP has recently been reviewed and updated.

NATIONAL

Government policy was reviewed and updated in 2013, with the publication of the Aviation Policy Framework (APF). The APF reinforces the Government's commitment to adopting the ICAO 'balanced approach' and has an overarching objective '…to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise'.

The most appropriate way to measure and assess the impact of aircraft noise remains the 57 decibel daytime noise contour as the average level of daytime aircraft noise marking the 'approximate onset of significant community annoyance'.

OUR OBJECTIVES

NOISE

The Civil Aviation Act 1982 gives the Secretary of State power to directly limit the numbers and types of aircraft that may operate at any specific airport. The Secretary of State chooses to exercise these powers of 'designation' only at the three major London airports, Heathrow, Gatwick and London Stansted. As a result some aspects of operations at Stansted, in particular night-time operations, are directly controlled by central Government rather than being determined locally.

LOCAL

Uttlesford District Council is the local planning authority that covers the airport. Stansted is subject to a number of planning conditions, most notably an annual limit on aircraft movements of 264,000 and an associated noise contour area (57dBLAEQ,16h) of no more than 33.9 sq. km. These limits are part of the planning permission to grow to 35 million passengers per year.

NOISE

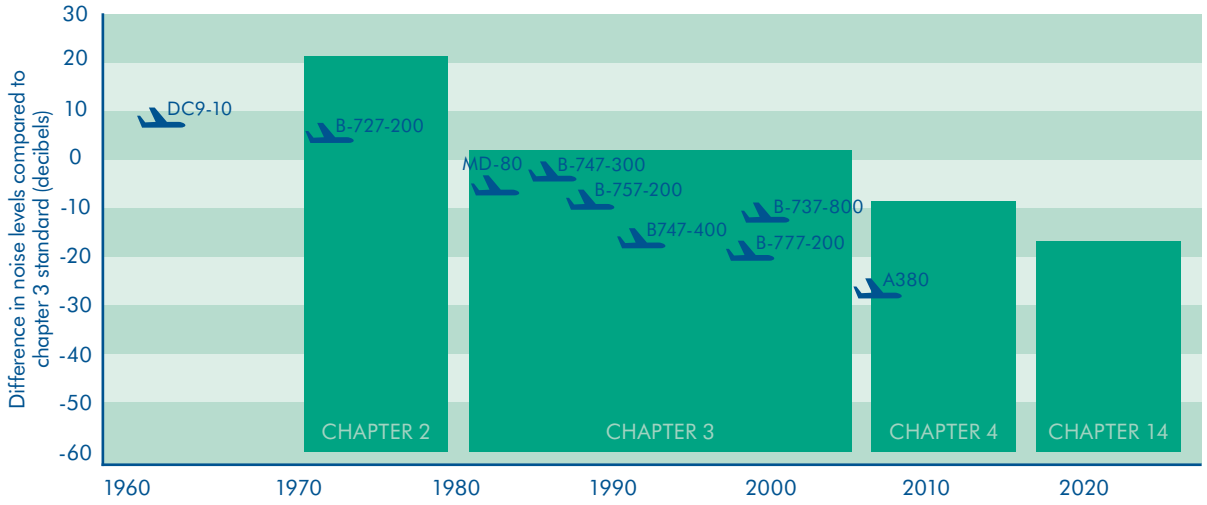
OUR APPROACH TO MANAGING NOISE

In conjunction with our industry partners and with the close involvement of community representatives and elected members we have developed a wide-ranging and sophisticated set of noise controls. Under M.A.G ownership it is intended that these are refined and further developed.

A noise and radar track monitoring system is a central part of our noise management programme. This can be accessed on our web site:

http://www.stanstedairport.com/about-us/local-environmental-impacts/noise/noise-in-your-area

DOWNWARD TREND IN THE NOISE CERTIFICATION OF AIRCRAFT



OUR OBJECTIVES

NOISE

Key aspects of our noise controls are:

DEPARTING AIRCRAFT

Noise preferential flight paths concentrate departing aircraft away from densely populated built up areas, wherever it is possible to do so. Through continuous monitoring and a collaborative working approach with our airline partners, 99% of departing aircraft now keep to our preferred routes.

We impose maximum noise limits on departing aircraft. The noise penalty limits are 94, 89 and 87 decibels for daytime, late evening and night-time respectively. Aircraft that exceed a noise limit are fined, with the proceeds transferred to the Stansted Airport Community Fund.

ARRIVING AIRCRAFT

We promote the use of continuous descent approach (CDA), a procedure that minimises the use of an aircraft's engines reducing aircraft noise. For aircraft arriving in a westerly direction, 94% now use CDA. Many easterly arriving aircraft (to runway 04) are currently unable to adopt CDA due to congestion within surrounding airspace. It is likely that changes delivered by NATS will, in time, remove this constraint and enable continuous descent approach to be operated to runway 04 in the future. We will work with NATS to ensure that procedures are carefully designed, following public consultation and are delivered as quickly as possible.

AIRCRAFT ON THE GROUND

Measures to minimise ground noise include the use of fixed electrical ground power, which minimises the need for aircraft to use their auxiliary power units when parked on stand. We also closely control the use of engine testing and ask pilots to minimise their use of reverse thrust when landing.

NIGHT-TIME OPERATIONS

As Stansted is 'designated' by Government, the limitations applied to night time aircraft movements are set centrally. They are reviewed, usually every five years. Currently, the maximum limits on the number of movements that are permitted at night are 7,000 in the summer season and 5,000 in the winter season. 'Designation' also imposes a quota count limit. The quota count system assigns each aircraft operation at night a value of quota points, with noisier aircraft attracting a higher points value and quieter aircraft assigned a lower or zero rating.

MITIGATION

We offer grants for sound insulation to those who are most affected. The scheme pays 50% of total insulation cost to those who live within the 63 decibel daytime noise contours (63dBLAEQ,16h). To date, 600 dwellings have been insulated, at a total cost of more than £1.6 million.

Noise management can only be delivered successfully by working in a spirit of partnership and we work closely with Government, industry colleagues, our Consultative Committee, our Noise and Track Working Group and more generally with local communities. This helps us to understand the areas of greatest concern and to ensure that our noise controls remain current and appropriate.

OUR OBJECTIVES

NOISE

THE OUTLOOK FOR FUTURE NOISE IMPACT

Stansted already benefits from having one of the most modern and quietest aircraft fleets. Our NAP in 2013 showed a reduction in noise since our first NAP in 2010. In future, we expect the aircraft fleet to continue to reflect the best available technology and for individual aircraft to become progressively quieter. We recognise though that the substantial forecast growth will make the control of noise more challenging.

We have modelled the likely noise footprint for future years. Given the long term nature of this Plan with a time horizon of up to 25-30 years, there is, of course, a degree of uncertainty inherent in future forecasts and our projections in this Plan are based on our best view of the future aircraft fleet. To reflect this uncertainty we present our projections as a range of possible outcomes. Our assumptions are in line with the fleet assumptions included in the Sustainable Aviation Noise Road-Map[13]. We will continue to explore the effect of differing aircraft fleets and rates of growth to ensure that we understand the range of possible outcomes. We will continue to publish annual noise contours and, as recommended in the Aviation Policy Framework, we will publish contours for both daytime and night-time periods and explore other metrics, in conjunction with local authorities.

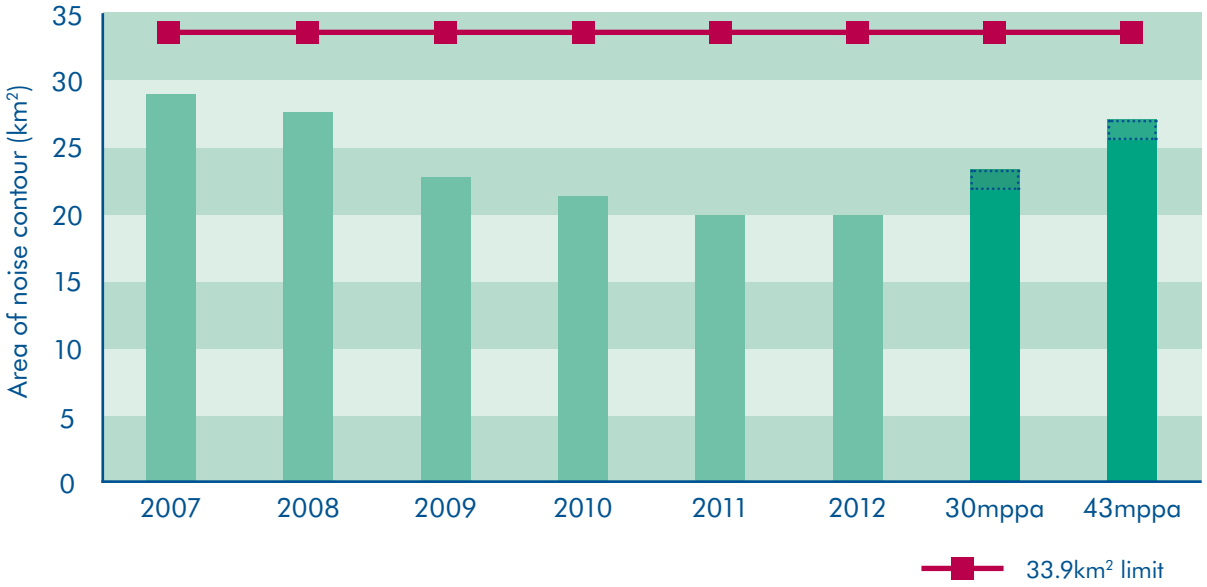
[13] The SA Noise Road-Map – A Blueprint for Managing Noise from Aviation Sources to 2050 (2013), Sustainable Aviation.

OUR OBJECTIVES

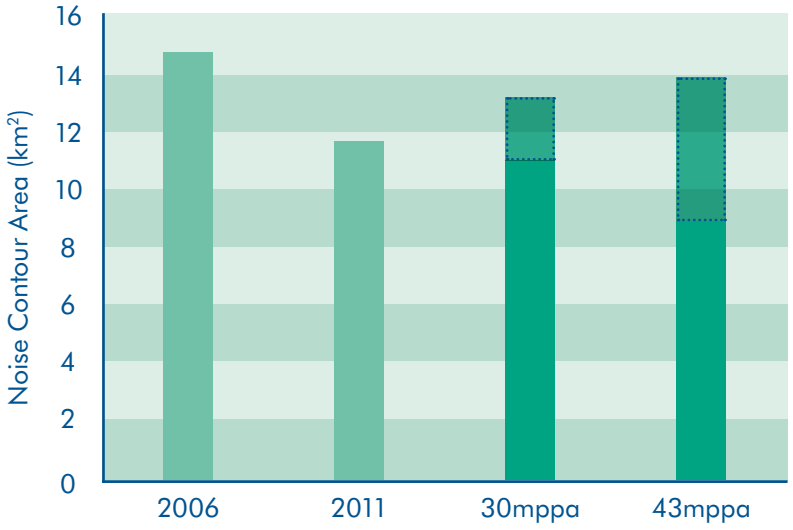
NOISE

Our noise modelling has been undertaken by the CAA using its ANCON noise model. We have modelled noise at an annual throughput of 43mppa[14]. As this is expected to occur beyond 2030, we have also modelled an interim year, with passenger throughput of 30mppa. We believe that this is likely to be achieved in the mid-2020's. The results are shown below.

DAYTIME NOISE (57dB$_{LAeq,16h}$)



NIGHT-TIME NOISE (55L$_{night}$)



[14] Figure assumed 43mppa for technical assessment purposes.

OUR OBJECTIVES

NOISE

The modelling shows the future noise footprint well below our permitted levels and lower than has been experienced in recent years. The rural setting of Stansted is different to other major London airports, particularly Heathrow, and thus the population exposed to noise is significantly lower. This enables us to really focus our mitigation efforts on that smaller population.

The modelling also shows that aircraft noise performance is ahead of previous expectations. In granting planning permission to grow to 35 million passengers it was agreed that the 57 decibel noise contour ($57dB_{LAEQ,16h}$) would be contained to an area of 33.9 sq. km or less. Our latest projections indicate that we can achieve a greater throughput, of 43 million per passengers, with a lower noise impact, containing the 57 decibel noise contour ($57dB_{LAEQ,16h}$) to an area of no more than 27 sq. km, at least 20% less than the agreed limit.

NOISE

OUR STRATEGY

Key features of our updated NAP include:

AIRSPACE MANAGEMENT

We support the CAA's Future Airspace Strategy (FAS) as there is a need to modernise the UK's airspace, which was designed over forty years ago. The FAS is a strategy to modernise airspace by 2020. The benefits of the FAS programme include fuel savings for operators; time savings and increased capacity for flights; potential CO_2 savings; noise reduction; and passenger time savings.

NATS has begun a substantial project to review and redesign routing arrangements for aircraft in the South East region. This is in advance of any CAA decisions or necessary ministerial approval to an airspace change. We expect any proposed change to be subject to consultation and we will assist with engaging communities around the airport.

With careful design, improvements in airspace management are likely to reduce or remove some of the barriers to efficient operation and overall they will reduce the impact of aircraft noise. For example, the ability to use CDA to runway 04 (described earlier).

MEASURING AND REPORTING NOISE

As discussed earlier, Government considers a daytime average noise level of 57 decibels marks the '…approximate onset of significant community annoyance'. Other measures can have value and we will provide a noise report that seeks to more closely reflect people's experience. We will work with local stakeholders to agree the most appropriate portfolio of measures. With the support of independent experts, this work has already begun.

SUSTAINABLE AVIATION

In 2013 we contributed to the publication of a Noise Road Map by the cross-industry alliance Sustainable Aviation. This includes a range of established and emerging best practices and we have committed to adopt these measures wherever it is viable to do so.

This Plan is an opportunity to consider noise over a longer term horizon and in light of more recent policy developments, including the possible creation of a new Independent Aviation Noise Authority as recommended by the Airports Commission[15]. Stansted is unusual in that it is 'designated' for the purposes of noise control and as such many of our key noise controls are determined by the Secretary of State.

As a matter of principle we believe that, where possible, noise is best managed locally. Indeed this has been the policy of successive governments. Locally determined noise controls can more closely reflect the priorities of local stakeholders and as they are not necessarily bound by a statutory process, can be more responsive to changing priorities and events.

Feedback from the consultation on our draft Plan has shown a preference for Stansted's operations to continue to be regulated centrally by Government. We accept this feedback, however, we would like to continue to discuss the noise metrics, controls and mitigation that best fit the local setting and the priorities of local stakeholders.

[15] The Airports Commission is tasked by Government to examine the need for additional UK airport capacity and to recommend how this can be met in the short, medium and long term.

NOISE

To ensure that we include all relevant stakeholders, we will establish a technical forum with local authority officers, so that they are fully engaged in this debate. More widely, we will jointly consider with local stakeholders the appropriateness of central control and the circumstances in which it would be suitable for the Government to de-designate Stansted for the purposes of noise control.

NOISE PENALTIES

Consistent with all of the designated London Airports, our noise penalty limits at Stansted are 94, 89 and 87 decibels for the periods of daytime, late evening/early morning and night-time respectively. The majority of the aircraft that use the airport are modern and we believe we can tighten our noise limits. On the assumption that our noise controls continue to be regulated by central Government, we will lobby for tighter limits as part of future reviews of noise limits at the designated London Airports.

SOUND INSULATION GRANT SCHEME

In the Aviation Policy Framework, Government reiterates its expectation that airport operators should '…offer acoustic insulation to noise-sensitive buildings, such as schools and hospitals, exposed to levels of noise of 63 $dB_{LAeq,16h}$ or more'[16]. We have offered a Sound Insulation Grant scheme for many years and the scheme meets this requirement in full.

We will carry out a comprehensive review of this Scheme. The review will consider the appropriate level of support to home owners and the level of their contribution. We will consider changing the noise thresholds at which we will offer grant support. This will be done in consultation with STACC and local authorities.

NOISE ENVELOPE

The Aviation Policy Framework supports the use of noise envelopes, noting that '… Government wishes to pursue the concept of noise envelopes as a means of giving certainty to local communities about the levels of noise which can be expected in the future and to give developers certainty on how they can use their airports[17]'.
We agree.

We see merit in establishing a clear long term noise objective and this becoming the primary noise measure. We can then implement controls to contain noise impact within the noise envelope.

For daytime noise, planning conditions limit the noise contour 57 $dB_{LAEQ,16h}$) to an area of 33.9 sq. km. Our assessment of future noise impacts, as set out above, shows this will be an effective backstop and we propose this limit as a daytime noise envelope.

For night-time noise, we will continue to explore the case for establishing an additional noise envelope to reflect the greater sensitivity of noise at night.

Over time, these noise envelopes would become the primary long term noise objective. We will take all reasonable steps to ensure we remain within them. We will continue to focus on limiting operations by noisier aircraft types and implementing a range of best practice operating procedures. We will also consider stronger financial incentives for airlines to improve noise performance through greater differentiation of airport charges.

[16] Aviation Policy Framework (2013), Department for Transport, paragraph 3.37.
[17] Aviation Policy Framework (2013), Department for Transport, paragraph 3.29.

OUR OBJECTIVES

NOISE

AIMS

- Seek to minimise the impact of all aspects of noise;
- Reduce noise penalty limits;
- Establish long term noise envelopes; and
- Introduce an agreed range of noise metrics.

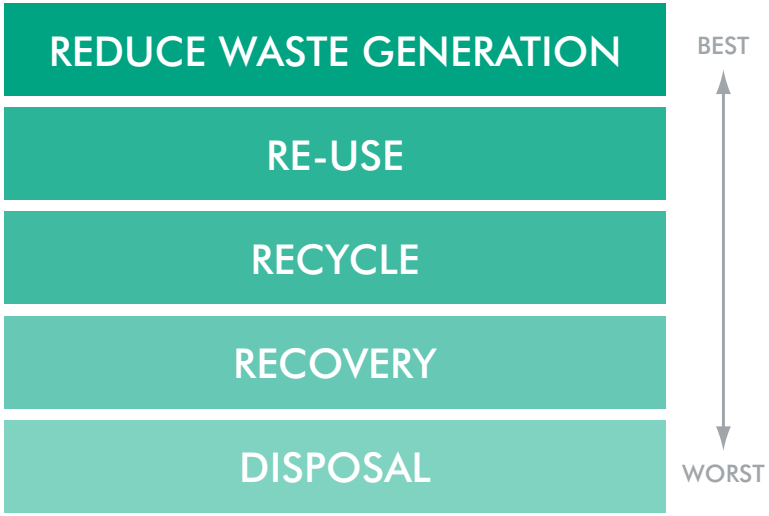
TARGET

- Continue to ensure that the daytime noise contour (57 $dB_{LAEQ,16h}$) does not exceed an area of 33.9 sq.km.

WASTE MANAGEMENT

The airport generates and manages large quantities of waste. We will continue to manage our waste according to the principles of the waste hierarchy (Reduce waste generation, Re-use, Recycle, Recovery, Disposal). We will work with our business partners to minimise the production of waste and promote the re-use and recycling of waste materials to achieve our goal of zero waste to landfill.

CONTEXT



Airports are comparable to small towns with regard to the range of businesses and activities. All of these activities generate waste as well as opportunities for reuse and recycling.

Waste is generated from:

- aircraft cleaning, servicing and catering;
- cleaning of buildings and offices;
- office administration;
- terminal retail and catering;
- maintenance activities and workshops which can include hazardous wastes;
- cargo handling;
- security search areas where passengers are required to surrender prohibited items; and
- business partners (such as hotels, hangars and equipment and vehicle servicing companies).

The types of waste include: packaging (cardboard, plastic, glass etc.); food from catering facilities; newspapers and magazines; pallets; metals; and green waste. Additionally small quantities of hazardous, clinical, liquid and construction wastes are generated.

In 2013/2014 approximately 5,000 tonnes of waste was collected, around half of which was generated by retail units and passengers in the terminal. For example, 3-4 million plastic bottles a year are collected, crushed and recycled. A further 800 tonnes of green waste was generated, most of which was composted on-site.

WASTE MANAGEMENT

The amount and type of waste generated within an airport is dependent on a number of factors, such as:

- the number of passengers and the time spent within the terminal;
- the types of flights (short haul flights tend to generate less waste than international, long haul flights);
- purchasing decisions such as over-ordering of products or levels of packaging;
- staff use of resources; and
- construction activities.

LEGISLATIVE AND POLICY FRAMEWORK

Waste and recycling are regulated by a wide range of EU Directives and UK regulations. These aim to reduce waste, reduce reliance on landfill and ensuring an audit trail to ensure waste is handled and recycled or recovered in a responsible manner. The Landfill Tax has made waste disposal to landfill more expensive, with the aim of providing financial incentives to increase recycling and recovery.

Aircraft cleaning waste is subject to additional controls to prevent the spread of animal diseases. Any cleaning waste from outside the EU that contains certain food items or ingredients is considered "Category 1 International Catering Waste" (Cat 1 ICW). The amount of Cat 1 ICW is expected to rise in future, linked to an increase in long haul operations which generate greater amounts of waste. This poses a significant challenge. There are tight controls on the storage, transport and disposal of this type of waste, which must go directly to a specifically licensed landfill or incinerator. Any recycling or recovery of this waste must be undertaken within the controls set by the legislation and DEFRA's guidance.

WASTE MANAGEMENT

OUR APPROACH TO MANAGING WASTE

We manage waste in accordance with the principles of the waste hierarchy. We provide an airport wide waste collection and recycling service which our business partners can subscribe to. We encourage and incentivise recycling through our pricing and the services we offer and we have built recycling and landfill diversion targets into our waste contracts.

REDUCE

Where possible we seek to eliminate waste generation in the first place. This can be challenging, as a large proportion of waste is generated by our business partners and in public and passenger areas. We recharge our tenants based on the volume of waste they generate, providing them with a financial incentive to reduce waste.

We provide information to passengers on security restrictions to minimise the need for them to discard prohibited items, such as liquids. Mixed waste from the security search area is sorted to separate any recyclable or hazardous waste items.

Working with colleagues and our business partners is also a key part of our strategy to reduce waste through procurement decisions and project design.

REUSE

Waste reuse is where waste materials can be used again without the need for re-processing. Key opportunities for reuse are in construction activities and in the reuse of packaging. We routinely reuse crushed road planings and in 2013 we made use of approximately 330 tonnes in maintaining other surfaces. Reuse of construction materials on site also reduces the number of vehicle movements required to bring construction materials onto site. Other initiatives include sweeping up and cleaning of grit used in winter on roads and pavements which is then stored for reuse the following winter; and working with retailers to encourage the re-use of metal cages and pallets and removing good quality wooden pallets for reuse.

RECYCLE

We have a comprehensive recycling programme. We provide recycling bins across our terminals, piers and offices as well as separate collection of other materials such as glass, metal and wood.

We support on-board recycling schemes implemented by some airlines, and sort through bags of mixed recyclables collected by cabin crew. Additionally, we are able to send aircraft cabin waste from EU flights offsite for sorting to recover recyclables, and are working to increase the amount of aircraft cleaning waste that is recycled.

WASTE MANAGEMENT

CASE STUDY

RECYCLING PROJECTS

Over 60% of airport waste in 2013/14 was either recycled or composted. Initiatives include:

- We collected 242 tonnes of food waste in compostable waste bags in 2013/14 from our retail partners which was sent for composting, a 20% increase on the previous year;
- Collection and recycling of plastic bottles and aerosols discarded by passengers at airport security;
- Textile recycling bins for clothing discarded by passengers to avoid charges for exceeding hand and check-in luggage weight allowances. We also provide textile recycling for airport workers;
- Supporting airlines' on-board recycling programmes as part of the Sustainable Aviation workstream;
- New equipment to separate out high volumes of recyclables, including plastic bottle crushing machines and a waste sorting table; and
- Collection of dry mixed recyclables where separate collection is not possible. As long as the waste is not contaminated with food or liquids, it can be sent offsite for sorting where the majority of the waste is recycled.

RECOVERY

Energy can be generated from waste through various technologies such as anaerobic digestion, incineration with energy production and generating solid fuel from the waste. Where separate collection of dry recyclable materials is not practical, we send waste for energy recovery such as to a mechanical biological treatment facility which extracts high calorific value material for conversion to solid fuels or where this is not possible to energy from waste incineration.

WASTE MANAGEMENT

OUR STRATEGY

Much of the waste generated on the airport site is already recycled or composted. We want to build on this progress and our target is at least 70% of waste will be recycled or composted by 2020. Where this is not possible, waste will be sent for energy recovery, to ensure that we achieve our second target to eliminate all waste to landfill.

We will continue to work with our business partners. This will include providing convenient collection facilities, incentivising recycling and waste reduction financially, and working with airlines and organisations such as Sustainable Aviation to help recover more recyclables from cabin waste. As a company, we will encourage colleagues to participate in recycling through our Vision Green awareness campaign, and by including waste and recycling objectives in the design of new developments.

2015

AIMS

- Apply the waste hierarchy: Reduce, Reuse, Recycle and Recover;
- Ensure new developments incorporate appropriate waste management and recycling facilities;
- Consider resource efficiency in procurement decisions;
- Continue to work with business partners across the airport to increase the segregation of wastes for recycling;
- Proactively manage our waste contractors to ensure we remain legally compliant and maintain a high quality of service to all airport parties;
- As far as possible continue to use local recycling and waste processing sites to minimise the environmental impacts of road transportation;
- Incentivise waste reduction and recycling through our pricing policies; and
- Raise awareness and engage with staff through our Vision Green campaign.

2020

TARGETS

- 70% of waste to be recycled by 2020; and
- Zero waste to landfill.

WATER MANAGEMENT

Large volumes of water are used each year at Stansted for drinking water, toilets and washing facilities. Water is also used for commercial purposes such as catering, washing of equipment and onsite airport related facilities such as hotels.

CONTEXT

Waste water is discharged to sewers. We actively monitor water consumption and take measures to reduce consumption through leakage repair and installation of more efficient appliances.

Rainwater discharged directly into local watercourses can carry pollutants with it, which can have potentially harmful consequences to fish and the general river habitat. We have rigorous programmes in place to ensure that we minimise this risk and comply with our legal obligations.

Stansted consumed around 670 million litres of water in 2013-14. Currently, all of the water we use is drinking water and the majority is returned to the sewer, for treatment at wastewater treatment works operated by Thames Water Utilities.

Rainwater runoff flows into a series of on-site balancing ponds where clean water is discharged directly into local watercourses. Our balancing ponds allow us to control the volume and rate of discharge and minimise risk of pollution.

Possible sources of surface water or groundwater pollution include:

- chemicals used for aircraft and airfield anti-icing and de-icing;
- detergents used in aircraft and vehicle washing and general cleaning;
- chemicals and oils from aircraft and vehicle maintenance;
- silt, chemicals and fuels from construction activities;
- spillages of fuel and sewage from aircraft and service vehicles;
- leaks from storage of chemicals and fuel; and
- fire-fighting foam (mainly from training).

We manage all of these sources to further minimise the risk of pollution. For example, oil interceptors trap oils across the site and at our balancing pond system.

The airport has an extensive infrastructure, with around 80 miles of pipework and drains, 30 pumping stations and 50 oil interceptors across the site. These require regular monitoring and maintenance.

WATER MANAGEMENT

LEGISLATIVE AND POLICY FRAMEWORK

The EA regulates discharge to surface waters. It grants a number of environmental permits to the airport to allow us to discharge surface water into local watercourses, within tight limits on water quality.

Thames Water applies limits to the volume and quality of discharges to the sewer from trade effluents including the discharge of de-icing chemicals which are used in winter to ensure safe operations.

Compliance is regularly monitored by both the EA and by Thames Water. To ensure compliance, we systematically identify and assess pollution risks, working with our colleagues and business partners to minimise risk and develop robust contingency plans. We also closely monitor and approve all new development of water and wastewater systems.

OUR APPROACH TO MANAGING WATER

WATER CONSUMPTION

In recent years we have implemented an increasingly comprehensive water efficiency programme. This has included the installation of water saving technology in a number of terminal and office toilets. Low-water technology will be standard in new facilities with all new main buildings achieving a BREEAM Excellent rating.

We have a rolling annual programme of leakage detection and repair. In 2011, we undertook some significant water pipework repairs which reduced our consumption by 33%, saving a total of 205 million litres of water.

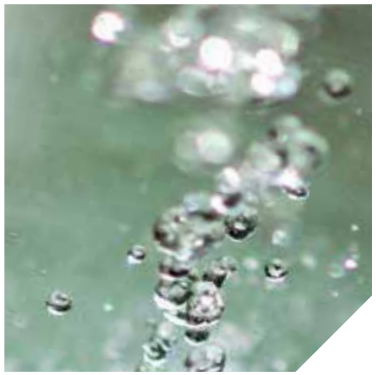
POLLUTION PREVENTION

Runoff from the airfield that contains de-icing chemicals is diverted away from watercourses and into balancing ponds. It is then diverted to the sewerage network. Runoff that does not contain de-icing chemicals is held in balancing ponds before being discharged into nearby watercourses. The rate and quality of flow is controlled by the Environment Agency (EA).

Vehicle and aviation fuels are stored on-site. Wherever possible we will change to less polluting products. We approve products and processes for all aircraft related activities to minimise the potential for any pollution.

OUR OBJECTIVES

WATER MANAGEMENT



As part of our ISO14001 Environmental Management System, we audit our own and our tenants' facilities and operations to check that pollution risks are controlled, focusing in particular on bulk chemical or fuel storage tanks. We have introduced improvements to the way we apply herbicides and pesticides, which are used as part of airfield grassland management. These changes have reduced the amount of chemicals used.

We have robust spill response procedures and have improved resilience by implementing an automatic shut-down system to capture large spills in our balancing ponds. We also have contingency plans in place in the event of an incident or if the use of de-icing chemicals is exceptionally high.

Comprehensive water quality monitoring for surface water and trade effluent discharges helps us manage our drainage systems effectively. We supplement this with sampling at all of our outfalls to ensure compliance with our permits. We monitor the quality of drinking water and regularly measure water consumption.

WATER MANAGEMENT

OUR STRATEGY

We are committed to improving our water efficiency and preventing pollution. Without intervention, water consumption will rise with the growth in passenger numbers. Therefore, we will continue to look for opportunities to reduce our water use and to encourage other on-site companies to do the same.

Parts of Essex and East Anglia are classified as semi-arid due to exceptionally low rainfall in some years and population density. We will therefore seek to set a water reduction target and explore options to reduce the overall demand for water.

New facilities will incorporate water efficient technologies as part of our commitment to the BREEAM standard. Any larger development will consider options for water re-use and rainwater harvesting. We will continue to manage our water distribution system through leakage surveys and prompt repairs and through more accurate metering of our consumption.

New buildings, roads and car parks will increase the volume of surface water run-off. As part of these developments, we will seek to use sustainable drainage techniques and increase capacity where appropriate. We will review developments in Sustainable Drainage Systems and technical guidance and where possible will implement measures to maximise natural filtration and reduce peak surface water flows to the balancing ponds.

We have already made improvements to maximise the capacity within our balancing ponds and to improve the control of de-icing chemicals. We will continue with these improvements and will continue to work closely with the EA.

We will continue to inspect and maintain our water infrastructure to UK Water Industry Standards and continue to invest in our critical assets to maintain their condition and performance. We will use monitoring to identify refurbishment and replacement requirements to ensure the infrastructure remains in a good condition and is upgraded where required.

As set out in the Climate Change chapter, we will regularly review our climate change adaptation plans. We need to develop our drought management and response plans and will work with our water supplier to better understand the water stresses in our area.

WATER MANAGEMENT

2014 AIMS

- Explore opportunities to further reduce water consumption;
- Install water efficiency devices within existing buildings where beneficial;
- Implement measures to reduce peak run off rates and volumes;
- Improve water quality using natural methods where possible;
- Work with key stakeholders and local authorities including our water supplier and sewage undertaker and the EA to inform our plans for drought management and to manage surface water run-off; and
- Ensure water stress and surface water issues are included in our climate change adaptation plans.

2014 TARGETS

- All new buildings to include water efficiency devices;
- Continue to undertake leakage monitoring of the water distribution pipework to reduce the amount of water lost as a result of leaks; and
- Capture the first 5mm of rain fall in 80% of summer events and 50% of winter events.

ARCHAEOLOGY AND HERITAGE

Stansted and its surrounding area has a rich history of archaeology dating from the Neolithic (4000BC) through to the Second World War. Evidence exists of Bronze Age, Iron Age and Roman settlements. The area is characterised by narrow lanes connecting small clustered settlements and farms, set within irregular field patterns and woodlands.

CONTEXT

The airport is situated on a flat plateau of glacial boulder clay, known as the Walden Uplands. There has been excavation that has revealed pre-historic and Roman farmsteads as well as remains of medieval homes. The most significant finds on the airport site have included those at the Mid-Stay car park, which revealed some seven to eight circular timber houses with waterholes and wells.

There are two listed buildings within the airport site; Bury Lodge Hotel and the associated barns to the east.

LEGISLATIVE AND POLICY FRAMEWORK

Protecting and enhancing the historic environment is an important component of the National Planning Policy Framework's (NPPF) drive to achieve sustainable development. A key role for the planning system is to contribute to protecting and enhancing our natural, built and historic environment. The NPPF requires an appropriate desk-based assessment, and where necessary a field assessment, to be submitted for proposed development on a site which has the potential to include or impact on such assets.

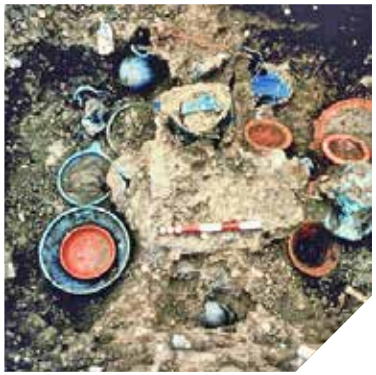
OUR APPROACH TO MANAGING ARCHAEOLOGY AND HERITAGE

Extensive archaeological investigations have taken place at various stages of the airport's development. As part of any new development we will consider the need for further archaeological evaluation and where possible, conserve or enhance the archaeology and heritage of the airport site.

An understanding of the historic landscape, which is relatively well preserved, has been gathered from such investigations, including field surveys and subsequent excavations, which have identified pre-historic and Roman farmsteads and the remains of medieval homes.

OUR OBJECTIVES

ARCHAEOLOGY AND HERITAGE



OUR STRATEGY

As part of any new development we will consider the need for archaeological evaluation. This could include undertaking geophysical surveys, artefact scatter surveys, and the excavation of trial trenches. Other cultural heritage features, such as historic landscaping in the form of ancient woodlands and hedgerows, and listed buildings, will be assessed to evaluate the potential effects of proposed development on their setting or local environment. Any initial assessment would be able to provide a guide as to possible mitigation measures as part of the development process. Items of interest will be suitably recorded and displayed, possibly at the Aerozone centre or local museums.

2014

AIMS

- Consider the need for further archaeological evaluation where a site is to be developed and implement appropriate mitigation measures;
- Retain appropriate specialist advice in advance of new developments; and
- Encourage local display and storage of artefacts or archaeological records relating to Stansted.

LANDSCAPE AND ECOLOGY

Within the constraints imposed by the normal operation of the airport, we promote the development of rich and varied habitats, seeking to integrate the airport within its rural setting and promoting access to the airport site.

CONTEXT

There are a number of ecologically rich habitats in the surrounding areas such as the medieval Hatfield Forest, Eastend Wood (part of Elsenham Woods SSSI), Coopers Fen (an Essex Local Wildlife site and site of regional importance for its physical and hydrological features), as well as other ancient woodlands, wildflower grasslands and a network of ancient hedgerows and veteran trees. We also have a number of wildlife sites and protected specifies on the airport including species identified in the UK Biodiversity Action Plan (UK BAP).

There are a number of established woodlands and grasslands that are generally self-sustaining and therefore require little management, such as Stocking and Priory Woods which are also Essex Local Wildlife Sites and Bury Lodge and Molehill Green Meadows. Across the airport site and on the immediate periphery, there are habitats that have been developed for relocation of protected species or enhanced to aid biodiversity.

The rich and varied habitats and landscape provide a range of functions. These include providing suitable habitats for various protected and BAP species such as great crested newts, bats, brown hare, breeding skylarks and badgers.

Extensive areas of internal and perimeter landscaping have been established as part of the phased development of the airport, along with areas set aside for ecological mitigation. This is now well established and provides an attractive setting for the airport and its activities. The airport is generally screened from view in the surrounding countryside as a result of works that have been undertaken to strengthen existing planting with new planting. This has resulted in a strong visual screen in keeping with the undulating nature of the surrounding countryside and local planning policy.

LANDSCAPE AND ECOLOGY

LEGISLATIVE AND POLICY FRAMEWORK

The Government published the first Natural Environment White Paper for 20 years in 2011 — The Natural Choice: Securing the Value of Nature — which shifted the emphasis from piecemeal conservation action towards a more integrated landscape-scale approach. It also acts on information presented in a report on England's wildlife sites called 'Making Space for Nature' by Professor John Lawton.

The White Paper aims to improve the quality of the natural environment across England, halt the decline in habitats and species, and strengthen the connection between people and nature. Government believes that the actions contained in the Natural Environment White Paper will create a radical shift on how we view our natural assets by incorporating the natural environment into economic planning and ensuring there are opportunities for businesses that are good for nature and good for a strong green economy.

At a local level, the Uttlesford Local Plan promotes the concept of the airport benefitting from a significant level of landscaping, whether it is structural landscaping within the airport or the countryside beyond.

Biodiversity is managed at the airport in the context of the UK Biodiversity Strategy – 2020, existing environmental legislation, Essex Biodiversity Action Plan, and CAA Standards.

OUR APPROACH TO MANAGING LANDSCAPE AND ECOLOGY

Our approach is to protect the habitat and the protected species as far as possible and to manage these areas to maintain or enhance their value. In planning developments we follow a hierarchy of avoiding damage as far as possible, minimising the remaining impact, mitigating impacts that cannot be avoided and providing compensation for any residual effects.

We will further develop our landscape and ecology strategy over time, and we will work with local communities and organisations to conserve biodiversity on the airport as well as on sites nearby. Particular attention is given to:

- minimising the visual impact of the airport in the surrounding countryside and on people living in closest proximity;
- protection and management of existing high value semi-natural areas such as woodlands, hedges and wildflower grasslands;
- enhancing the overall appearance and image of the airport;
- enabling visitors and employees to use the airport with maximum ease and efficiency;
- providing a framework so that all new development can be located in a co-ordinated way;
- making efficient use of land so that where possible development does not take place on greenfield sites or near to protected sites; and
- ensuring the landscape in and around the airport is designed so as not to prejudice aircraft safety.

LANDSCAPE AND ECOLOGY

The landscaping scheme implemented as part of expansion in the 1980s integrated new native planting with the existing patches of mostly woodlands and ancient hedges and created significant areas of wildflower grassland. The wooded areas on the periphery of the Airport now provide a significant level of screening and the visual impact of the airport will be lessened as this planting continues to mature. Features of the local landscape are an integral part of the airport with woodlands, hedgerows and wildflower grasslands extending along the road and rail approaches up to the terminal building.

CASE STUDY

EASTEND WOOD

This 40 hectare nationally important site is managed by agreement with Natural England through a programme of coppicing, thinning and ride management as well as managing aircraft safety issues. In order to avoid damage by vehicles, we have used Suffolk Punch rare breed horses to remove large branches and logs from the wood.

All grass cuttings and most of our landscaping wastes are composted at our on-site composting facility, reducing the need for transport off-site and allowing the finished compost to be re-used on the site as a fertiliser. Composting also maximises the retention of carbon by returning it to the land.

In order to minimise the impacts of new developments, our approach is to seek to avoid and then minimise effects on the high value habitats and protected/BAP species, to provide appropriate on-site mitigation where the effects cannot be avoided and to consider compensation for the residual effects. We have a significant database of ecological information on which to draw, but also conduct ecological surveys to inform this process and ensure our databases are up to date. Where necessary, we have translocated species such as great crested newts away from development sites.

LANDSCAPE AND ECOLOGY

OUR STRATEGY

VISUAL SCREENING

We will continue to ensure that the airport remains screened where this is achievable and to mitigate the visual impact of buildings and ground level activities.

MANAGEMENT OF HIGH VALUE AREAS

We will continue to proactively manage and protect areas on the airport that have significant ecological value. For example, we will manage Eastend Wood to preserve and enhance its status as a SSSI and protect the ancient wetland environment of Coopers Fen. We will maintain the wildlife areas and continue to monitor biodiversity on the airport to provide information and data for future developments.

We will review and update our biodiversity management plan to ensure we continue to meet our biodiversity commitments and objectives.

MITIGATING NEW DEVELOPMENTS

As developments take place, associated landscaping or ecological mitigation will be undertaken as part of the strategic landscaping of the airport to avoid and minimise damage to biodiversity and manage the visual impact of new buildings within the site. Any associated landscaping or mitigation will be carefully designed to avoid attracting birds which could potentially affect the safety of aircraft. The Land Use Plan describes the infrastructure required to allow the airport to reach its maximum capability of just over 40mppa, most of which is substantially provided or permitted. Any additional infrastructure can be accommodated within the airport's current boundary, on land which we have managed over the last 20 to 30 years.

We already have a wealth of information as to the ecological potential of our site. Where appropriate, there will be individual site specific ecological assessments.

We will continue to apply our policy of a hierarchy of approach for any planned development site, in line with legislative requirements and best practice.

This is to:

- Protect the habitat and the protected species as far as possible and to manage these areas to maintain or enhance their value; and
- In planning new developments we will seek to avoid damage as far as possible, minimise the remaining impact through careful design, mitigate impacts that cannot be avoided and provide compensation for any residual effects.

Where it is not possible to mitigate the impacts of development on individual sites, we will provide ecological mitigation measures elsewhere on-site if appropriate or off-site to fully compensate for the loss of habitat. We will work towards a policy of net gain in biodiversity and explore opportunities to identify additional sites outside the airport boundary for future ecological mitigation and improvement works.

OUR OBJECTIVES

LANDSCAPE AND ECOLOGY

2015 AIMS

- Management and protection of protected areas such as Eastend Wood and Coopers Fen;
- Continued regular maintenance of the habitat creation area and wildlife areas;
- Maintain visual screening of the airport through appropriate landscaping around the site;
- Undertake appropriate landscape or ecological mitigation, on the airport or off-airport where this is not possible;
- Manage the visual impact of any new buildings;
- Develop clear guidance for airport developments for landscaping, ecological protection and habitat creation; and
- Work towards a policy of net gain in biodiversity as a result of the airport's future development and identify additional sites outside the airport boundary for ecological mitigation and improvement works.

2015 TARGET

- Review and update our Biodiversity Action Plan by the end of 2015.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STANSTED MOUNTFITCHET
London Stansted Airport
UTTLESFORD DISTRICT
BISHOP'S STORTFORD
GREAT DUNMOW
Hatfield Forest
Great Hallingbury
Little Hallingbury
Takeley
Henham
Elsenham
Broxted
Manuden
Farnham
Birchanger
Thorley
Spellbrook
Hatfield Broad Oak

2013 AERIAL

HOW TO CONTACT US

The Sustainable Development Plan is an important document for us as it sets out what our aspirations are for development to the full capacity of the single runway at Stansted. There are many stakeholders who have an interest in the airport and the views and comments from Government, local authorities, neighbours, the business community and customers are an important part of the planning process.

We are committed to being open in sharing our vision for Stansted and the local area. Our plan reflects local views and ideas that were expressed during consultation on the draft version. We will continue to engage; to report our performance and review our plans in the light of changing circumstances. We expect to review and update this SDP at least every five years in line with current Government advice on airport master plans.

To obtain copies of the Sustainable Development Plan or contact us about its content:

Visit: **www.stanstedairport.com/developmentplan**

Write: **London Stansted Airport Ltd**
Enterprise House
Bassingbourn Road
Stansted Airport
ESSEX
CM24 1QW

email: **developmentplan@stanstedairport.com**