



# Towards a one planet 2012



### **Executive summary**

#### **Background**

Sustainability lies at the heart of every stage of the London 2012 programme. Guided by the WWF/BioRegional concept of 'One Planet Living', our headline theme – 'Towards a one planet 2012' – expresses our commitment to minimising use of the planet's resources throughout the preparation, staging and legacy of the Games.

From planning and construction and staging the Games to realising their legacy, our principal ambitions are to set new benchmarks in sustainability, inspire behaviour change, and maximise the social, environmental and economic impact of the Games to Londoners and the UK. This Sustainability Plan reports on the progress that London 2012 – the London Organising Committee of the Olympic Games and Paralympic Games (LOCOG) together with the Olympic Delivery Authority (ODA) – as well as our stakeholders have made to date.

This is the second edition of the London 2012 Sustainability Plan, which was first published in November 2007. Since that first edition, the theme of sustainability has taken on increasing importance for governments and communities worldwide as they seek to mitigate the effects of climate change. Many of their actions, legislation and programmes have shaped our approach to sustainability.

With two-and-a-half years to go until the Games, we recognise that local and global developments will continue to define this area. We will remain responsive to these changes and react to the challenges and opportunities ahead. But what will not change is our commitment to delivering a truly sustainable 2012 Games and leaving a positive, lasting legacy.

#### Approach

This Sustainability Plan spans the three phases of the Games programme:

Preparation – the design and construction of the Olympic Park and other permanent venues and infrastructure.

Event staging – all Games-time activities.

Legacy – the post-Games economic, social, health and environmental benefits of our work to communities.

Within this framework, we have identified five main themes that comprise our sustainability story:

- Climate change
- Waste
- Biodiversity
- Inclusion
- Healthy living

Each of these themes is treated individually within this Sustainability Plan but as part of an overall common approach. Each respective chapter outlines our aims and commitments, and the achievements we have made. We have adopted a similar structure in this summary document.

With such a complex and diverse series of operations taking place, however, it is inevitable that some activities cross over into more than one theme. When remediating contaminated land, for example, we also seek to minimise our impacts – such as carbon emissions – and create new habitats for wildlife. In our procurement processes, we are mindful not only of ecologically sensitive materials, such as timber, but also ethical and fair employment conditions. We are also placing strong emphasis on the choice of temporary materials so that we can advise design and procurement teams

on how to manage the sustainability impacts of materials selection for the Games. Our strategy for transport and logistics operations supports 'green' initiatives, such as low-emission vehicles and freighting by rail and water, but also social goals, such as a Games mobility service for people who need special assistance to access our venues. We have addressed these issues in a separate chapter, 'Cross-cutting themes'.

Beyond our own Games operations, we are also seeking to promote, showcase and inform others about sustainability. From our official sponsors and sustainability partners to local businesses, communities and the media, we are committed to developing and promoting a range of inspirational sustainability projects, as well as sporting, educational and cultural activities.

Highlights include Get Set, the London 2012 educational programme aimed at young people; the nationwide activities surrounding the four-year Cultural Olympiad; and the London 2012 Inspire programme, which offers non-commercial organisations a chance to get involved in the Games. More than 270 Inspire projects have been launched to date and each one is encouraged to consider its sustainability credentials. The Changing Places programme seeks to engage communities around our venues in activities to improve local environmental quality. Details of these and other programmes feature in the chapter 'Partnerships and outreach'.

To capture the full impact of our sustainability agenda, it is crucial that we have effective measurement and reporting systems in place. The ambitious scope of London 2012 has been a key driver behind the development of a new sustainability standard for the events sector (BS 8901, revised 2009). With sustainability still a relatively new theme for event reporting, we are also working with the Global Reporting Initiative to develop a new event sector supplement, and we have established an independent Commission for a Sustainable London 2012 to guarantee credible assurance of our achievements. We are also helping to coordinate an Olympic Games Impact Study to measure the legacy effects of our activities. Information about these accountability themes, as well as about our management arrangements and key stakeholders, is presented in a separate chapter, 'Governance and reporting'.

Beyond our own Games operations, we are also seeking to promote, showcase and inform others about sustainability



# **Climate change**

To minimise the carbon footprint of the Games and provide a platform for demonstrating long-term solutions for energy and water resource management, infrastructure development, transport, local and seasonal

food production and carbon impact mitigation and adaptation.

#### **Key objectives**

Mission statement

The London 2012 Games will be the first Summer Games to map its complete carbon footprint over the entire project. This vast undertaking is underpinned by our four key aims concerning carbon management: to avoid and eliminate emissions at source; to reduce inefficiency in energy use, transport and work practices; to replace inefficient systems with low-carbon technology alternatives; and to compensate for unavoidable emissions by influencing behavioural change and standards so that others follow suit.

# 50

percentage reduction in carbon emissions that will be achieved from buildings on the Olympic Park by 2013

#### Commitments – at a glance

- Achieve a 50 per cent reduction in carbon emissions from permanent buildings on the Olympic Park (against 2006 Building Regulations) by 2013.
- Supply 20 per cent of the energy used on the Park after the Games from on-site renewable sources.
- Achieve Code for Sustainable Homes Level 4 for the Olympic Village, resulting in a 44 per cent reduction in carbon emissions.
- Freight 50 per cent (by weight) of construction materials for the Park by rail or river.
- Use a low-emission vehicle fleet at Games time.
- Provide low/zero-carbon fuel for the Olympic and Paralympic flames.
- Reduce the amount of drinking water used in new permanent venues by 40 per cent (against 2006 standards) by using water-efficient appliances and non-potable water for irrigation.

#### **Headline achievements**

- The first comprehensive carbon footprint study of a Summer Olympic and Paralympic Games.
- The concrete mix used for the Olympic Park and Village has achieved carbon savings of more than 40 per cent compared with standard specifications.
- All permanent venues are on track to be 15 per cent more efficient than an equivalent 2006 building.
- Half of the 16km pipe network for the Energy Centre, which will be complete in spring 2010, has been installed.
- Cooling in the Energy Centre and Aquatics Centre will use non-hydrofluorocarbon (HFC) chillers. As a result, more than 90 per cent of cooling supplied to permanent venues will be HFC-free after the Games.
- More than 60 per cent of materials have been delivered to the Olympic Park by rail or water, equivalent to more than one million tonnes of material.
- The Olympic Village is being designed to be highly water efficient through use of water saving devices and appliances; water consumption per person per day will be 105 litres against a standard of 160 litres.
- More than 4,000 properties will benefit from a significantly reduced risk of flooding as a result of the Park designs.

#### Waste

#### Mission statement

To be a catalyst for new waste management infrastructure and demonstrate exemplary resource management practices. This will be achieved by minimising waste at source, diverting construction waste wherever feasible and all Games-time waste away from landfill, and promoting the waste hierarchy of 'reduce, reuse, recycle' to facilitate long-term individual behavioural change.

#### **Key objectives**

In keeping with our London 2012 bid pledge to deliver a 'zero waste Games', our aim is to set new standards in waste minimisation and resource recovery. We plan to show the financial and environmental benefits of sound waste management and recycling throughout the programme, and deal with waste in the following order of preference: reduce; reuse; recycle and compost; use new and emerging technologies to recover energy; use conventional incineration with recovery of energy; landfill.

#### Commitments – at a glance

- Reclaim 90 per cent of demolition waste by weight for reuse or recycling.
- Use 20 per cent, by value, of construction materials from a reused or recycled source.
- Divert 90 per cent of construction waste from landfill.
- Ensure that no waste arising during the 77-day Games period will be sent directly to landfill.
- Treat all waste as a potential resource and ensure that at least 70 per cent of Games-time waste will be reused, recycled or composted.

#### **Headline achievements**

- 97.7 per cent of demolition waste and more than 90 per cent of construction waste from the Park has been recycled and in some cases reused.
- A total of eight buildings have been reused off-site.
- More than 80 per cent of soil has been cleaned and reused on the Olympic Park.
- Foundations for the Aquatics Centre, Handball Arena and Olympic Stadium have used concrete with more than 30 per cent of recycled materials.
- Signed up to Waste and Resource Action Programme's (WRAP's) commitment 'Halving Waste to Landfill'.



percentage of waste that will be sent to landfill during the 77-day Games period



# **Biodiversity**

#### Mission statement

To enhance the ecology of the Lower Lea Valley and other London and regional 2012 venues, and to encourage the sport sector generally to contribute to nature conservation and bring people closer to nature.

#### **Key objectives**

The Olympic Park Masterplan will create 45 hectares of new habitat and 102 hectares of open space, in an area currently deprived of accessible green space. Throughout this programme, our core aims are: to minimise and mitigate the impact of construction activity on existing species and habitats; to develop new and enhanced water and land habitats within the Lower Lea Valley; to provide ecological management plans for priority habitats and species through our Olympic Park Biodiversity Action Plan; to protect sensitive habitats and species at other competition sites; and to promote awareness of the value of biodiversity and its links to sport and healthy living.

#### Commitments – at a glance

- Provide natural links along the river valley corridor to connect wildlife habitats.
- Include a Biodiversity section in the Sustainable Design Requirements section of LOCOG's Design Strategy for Temporary Venues and Overlay.
- Create undisturbed areas for wildlife.
- Incorporate habitat features into the design of buildings, such as the provision of nesting sites and the creation of green and brown roofs and walls.
- Eradicate invasive species.

#### **Headline achievements**

- Designs for the Olympic Village, Aquatics Centre, Eton Manor and Main Press Centre include more than 15,000m<sup>2</sup> of living roof.
- 5km of waterway improvement works have been completed within the Olympic Park site, including taking rubbish out of waterways, dredging and fixing river walls.
- Space equivalent to ten football fields has been cleared of invasive Japanese Knotweed.
- A UK company has been contracted to supply 300,000 wetland plants for the Park.
- A UK nursery has been contracted to supply 2,000 semi-mature trees for the Park, which have been selected to 'future proof' against climate changes. The first tree was planted by Her Majesty The Queen in November 2009.

2,000

number of semi-mature trees, including birch, hazel and poplar, which will be planted to 'future proof' against climate changes



#### **Inclusion**

#### **Mission statement**

To host the most inclusive Games to date by promoting access, celebrating diversity and facilitating the physical, economic and social regeneration of the Lower Lea Valley and surrounding communities.

#### **Key objectives**

We aim to ensure the opportunities provided by the Games are spread as widely and as fairly as possible across the UK. This will be achieved by promoting supplier and workforce diversity, by ensuring that opportunity and training are available to all, and by inspiring and engaging all communities across the UK. With the five Host Boroughs home to more than one-fifth of London's total black, Asian and minority ethnic (BAME) population, we are especially keen to celebrate multiculturalism, involve local people in developing legacy plans, and to use the Olympic Park legacy to create sustainable, prosperous and cohesive new communities.

#### Commitments – at a glance

- London Employment and Skills Taskforce (LEST) to reduce worklessness in London by 70,000 by 2012.
- Provide 20,000 training places at the Olympic Park over the next five years.
- International Inspiration education programme to reach 12 million children worldwide in 20 different countries.
- Up to 50 per cent of homes in the Olympic Village that is,
  1,379 of 2,800 to be classed as 'affordable'.
- Meet ambitious LOCOG and ODA targets for recruiting workforce from under-represented groups, including women, BAME and disabled people.
- Deliver a construction workforce comprising at least 10-15 per cent of residents of the five Host Boroughs.
- Provide a Games mobility service for spectators at all venues.

# 10,000+

number of workless Londoners who have been supported into jobs through training and job brokerage programmes for the 2012 Games and associated activities through the London Employment and Skills Taskforce



#### **Headline achievements**

- A wide range of programmes implemented to help spread the economic benefits of the Games to all businesses, such as CompeteFor, an electronic brokerage service that matches buyers and suppliers for the huge range of business opportunities related to the Games.
- More than 10,000 workless Londoners have been supported into jobs through training and job brokerage programmes for the 2012 Games and associated activities through the London Employment and Skills Taskforce (LEST 2012).
- A total of 2,500 local residents have received employment support through the five Host Boroughs' 'Jobs, Skills, Futures' brokerage network. By September 2009, the jobs brokerage had placed 631 people into work.
- The Government is investing £5m into the Recruit into Coaching scheme.
  This will see 10,000 new volunteer coaches recruited from the 70 most deprived areas in England, giving priority to 16-25-year-olds who are out of work and out of the education system.
- The London 2012 Equalities and Diversity Forum has brought together the organisations responsible for utilising the strategic and technical expertise necessary to meet the challenge of delivering an inclusive and accessible Games.
- The Government is creating a world-leading system that offers five hours of PE and sport each week for all young people, regardless of ability, background or location. It has also launched a multi-million pound free swimming programme. Nearly 200 councils are offering free swimming to the under 16s and more than 260 are offering free swimming to people aged over 60.



# **Healthy living**

#### Mission statement

To inspire people across the country to take up sport and develop active, healthy and sustainable lifestyles.

#### **Key objectives**

As the world's pre-eminent festival of sporting excellence, the London 2012 Games will inspire and promote sports participation, play and other forms of physical activity, and tackle the health inequalities that profoundly affect east London's communities. Our aim is to maximise the health benefits that the Games programme will bring to spectators, workers on site, and the whole of the UK. To achieve this, we are focusing on six key areas: health and safety; remediation of contaminated land and cleaning polluted waterways; air quality; sustainable food; sports participation and physical activity; and legacy facilities for community and elite sport and culture.

#### Commitments – at a glance

- By implementing thorough standards, strategies and monitoring, we are committed to 'designing out' health and safety risks associated with the construction, maintenance and use of the Olympic Park and other venues, and the Olympic Village. We have a target of zero fatalities during this construction phase.
- One of our original commitments in the London 2012 bid was to clean up the 245-hectare Olympic Park site, which was formerly blighted by fly-tipping, poor water quality and little public access.
- Our aim is to ensure the best possible air quality for athletes to compete in.
- Through the London 2012 Food Vision (issued in December 2009) we are committed to celebrating the diversity and quality of British food and drink at affordable prices, and leaving a strong, sustainable legacy for London and the UK by nurturing commercial and educational partnerships. This Vision focuses on five areas: food safety and hygiene; choice and balance, food sourcing and supply chains; environmental management; skills and education.
- We are committed to inspiring every person, young and old, to take part in a range of sporting activities and to lead healthier, more active lives.
- Through its Legacy Action Plan, the Government has set the following targets: to be fourth in the Olympic medal table in 2012 and at least second in the Paralympic medal table in 2012; to offer five hours of sport per week for all 5-16-year-olds by 2012 and three hours of sport per week for 16-19-year-olds by 2012; and to help at least two million people in England to be more active by 2012. It also aims to increase regular sports participation by one million by 2012-13.

#### **Headline achievements**

- In our construction activities, the rolling 12-month accident rate remains well below the industry average and the eighth set of one million hours without a reportable incident was achieved during the year.
- In the clean-up operation, we have used sustainable techniques to recycle and reuse more than 90 per cent of the demolition material and 80 per cent of soil on site. This significantly reduced lorry journeys in the local area as only a minimal amount of contaminated material was taken to landfill sites.
- 90 per cent of children are now doing two hours of PE per week.
- The Mayor's Legacy Sports Plan for London, 'A Sporting Future for London', has committed £15.5m to community sport over the next three years.
- More than 90 million litres of contaminated groundwater which existed on the Olympic Park have been treated using innovative techniques.



million litres of pre-existing contaminated groundwater on the Olympic Park site which have been treated

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