

# Stewardship of the environment

## 1st housebuilder

We are proud to report that George Wimpey is the first publicly listed housebuilder to achieve ISO 14001:2004 certification for all of its UK operations.

## 48

environmental incidents recorded in 2006. We will include this figure as an annual KPI from 2007.

Environmental issues continue to rise ever higher up the Government and public agenda. Our environmental performance is essential to sustaining the future success of our business as regulation, planning policy and other sustainability related pressures on housebuilders increase. We understand the importance of and support the UK Government's emphasis on increased energy efficiency and sustainable homes.

We are the first publicly listed housebuilder to have achieved ISO14001:2004 certification for our entire UK operations. Certification helps us to achieve regulatory compliance, pre-empt forthcoming legislation and improve our performance while managing our environmental impacts. The continual improvement demanded by ISO14001:2004 certification will help us to remain market leaders in this area in years to come.

We continue to be assessed on ISO14001:2004 compliance by BSi Management Systems and RSK ENSR Environment Ltd inspects and audits our sites. BSi has noted in particular that the effectiveness of our training and induction programmes has led to high levels of environmental understanding among staff and contractors.

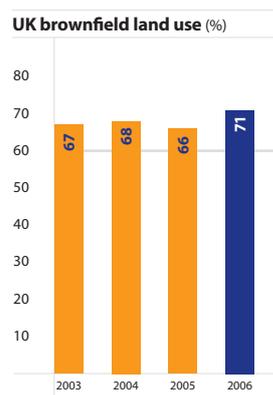
During 2006 we also ensured that our new preferred house type range (see page 6) is compliant with the revisions to Part L of the Building Regulations. All George Wimpey UK houses designed after the regulations came into force will meet the new energy performance requirements. The technical build specifications for our new preferred house type range also incorporate other energy efficiency and sustainability principles, including the option of environmentally preferable technologies such as photovoltaic cells on certain sites.

Our approach to environmental management starts with the identification and purchase of land. We use an innovative risk management tool in the form of a series of checklists and guidance set out in our Land Quality Manual. This manual is used by land buyers, engineers and our development teams from the earliest stages of land acquisition.

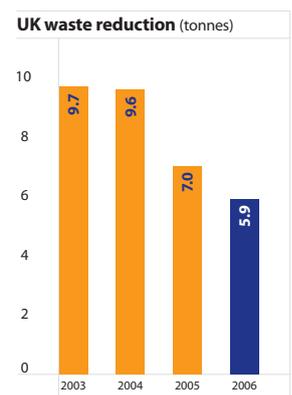
### Biodiversity

We recognise the impact that housebuilders can have on biodiversity and our role in the protection of species and wildlife habitats. We focus on two areas. The first is identifying and managing biodiversity issues on our sites. The second is enhancing the ecological value of our sites wherever practicable.

Initial site assessments for environmental sensitivity are carried out before work starts on any UK site. These assessments highlight a range of issues including the presence of protected flora and fauna. All sites must also produce a detailed Site Specific Environmental Action Plan (SSEAP) before construction can begin.



Percentage of UK homes built on brownfield land (UK Government target is 60% by 2008)



Tonnage of waste produced per unit of UK housing completed

## Key issue: Energy ↓

We acknowledge the global threat of climate change and are committed to reducing emissions. Our key areas of focus are reducing the requirements for space heating and cooling of homes through effective design and insulation as well as using energy-efficient appliances. We use low emission boilers as standard on all of our UK developments. Our UK Options Centres stock A or B energy rated appliances and we train sales staff on energy efficiency. We also provide our customers with energy efficiency information.

SAP ratings identify the energy efficiency of UK homes. The average SAP rating of the homes we built in 2006 was 94 out of a possible 100 points. We also built 1,906 apartments and houses to EcoHomes standards in 2006. We are committed to building homes to EcoHomes ratings of 'very good' and 'excellent' in 2007 and beyond. In the US, we built 1,681 homes to Energy Star or an equivalent certification. All homes built by our Dallas, Houston and Orlando Divisions are built to these standards.

In addition to these measures, we increasingly use renewable energy and other environmentally preferable technologies. For example, we are using solar hot water panels at Benedict's Wharf in Barking, Queens Hill in Norfolk and The Parklands in Leatherhead. Hobart Close in Chelmsford and Campbell Park (page 22) will use solar power to help light communal areas. Our consortium development at Park 25 in Redhill will have a central biomass boiler, while homes at Oxley Park (page 20) will use innovative 'EcoHats'. Our development in Nampak, Woburn Sands (page 12) is also carbon neutral.

# 1,906

APARTMENTS AND  
HOUSES BUILT TO  
ECOHOMES STANDARDS  
IN 2006

## Key issue: Water ↓

Minimising water use and the protection of surface and ground water is a critical issue. We use water silos on our UK sites to conserve water and reduce wastage during construction. To prevent excessive use of water in our UK homes, we use dual flush toilets as standard and our Options Centres stock A and B rated water-efficient appliances. Some of our developments also use showers and taps with reduced flow rates.

We also use other water conservation techniques. The Jacksonville Division of Morrison Homes is introducing greywater re-use for watering gardens in various communities and Greenbrook Village (page 23) uses drought tolerant landscaping. Residents at Murton Gardens in Osbaldwick, Queens Hill in Norfolk and Oxley Park (page 20) will receive water butts, while Westoe Crown Village (page 21) provides an example of using recycled rainwater for flushing toilets.

We take our responsibilities for protecting local environments very seriously. A number of our US communities are built close to wetlands, and the Avelar Creek case study (page 12) provides an example of wetland protection. All of our UK sites have a comprehensive SSEAP (see page 10) to identify and manage potential risks to surface and ground water.

In addition, Sustainable Urban Drainage Systems (SUDS) are considered on most of our UK developments. We try to integrate these systems into the design of our sites so they become wildlife habitats and water features for residents to enjoy. We also consider more innovative initiatives. We are drawing up plans for green roofs on a site in East London, these roofs will provide storm water attenuation as well as other environmental benefits.





### ← Wetland protection

The Tampa Division of Morrison Homes is building 670 homes at Avelar Creek in Hillsborough County, Florida. We were required by law to protect a wetland area on the site, but in addition decided to make it an amenity for our residents. We built a footbridge across the protected creek and a walking trail alongside to encourage our residents to enjoy the natural surroundings. We were required to protect certain flora, fauna and natural features and take our responsibilities in this area extremely seriously.



### Green transport ↑

Providing alternatives to car use and encouraging our homeowners to use more environmentally friendly transport is a key theme on many of our sites. Residents of our apartments at Saltisford Gate – on the remediated site of a former gasworks in Warwick – received green travel packs. These packs included travel vouchers, cycle routes and public transport timetables to encourage homeowners to reduce car use. Westoe Crown Village (page 21) provides a car share club and using Home Zone principles to minimise traffic while Campbell Park (page 22) will provide complimentary bicycles and other cycle friendly measures.

### Recycling packaging waste ↓ →

George Wimpey South Wales is trialling various ways to recycle cardboard and polythene packaging waste. In one trial, raw cardboard is mulched in the same way as other 'green' waste and returned to the ground as a soil improver. We also send raw cardboard to a local company to be recycled into new packaging. In another trial, we bail shrink wrap polythene and sell it to a company that manufactures plastic bags from waste materials. The bailing method is simple and cost effective and we are exploring whether this initiative could be introduced across the UK business. We are also working with key UK suppliers to reduce the amount of packaging they use.



### Urban regeneration

George Wimpey East Scotland's Ardler development in Dundee won one of eight coveted British Urban Regeneration Association (BURA) awards for best practice in regeneration in 2006. Ardler Village involved the regeneration of a housing estate in a state of serious decline. The Ardler development has Sustainable Urban Drainage System (SUDS) ponds to provide natural drainage functions and improve biodiversity on site by serving as a habitat for wildlife. Greenspace Scotland has praised Ardler for its parks, gardens and open spaces, while the Scottish Executive highlighted the success of the street design in a planning advice note. In addition, Ardler won the Community Involvement category of the most recent Scottish Awards for Quality in Planning.



RECEIVED BRITISH URBAN REGENERATION ASSOCIATION (BURA) AWARD FOR BEST PRACTICE IN REGENERATION

### Carbon offsetting

In 2006 we started building a first phase of 260 homes on the site of the former Nampark factory in Woburn Sands. The development plans to achieve EcoHomes 'very good' standards throughout and the majority of homes will include solar water heating. In addition, we calculated the expected carbon emissions of the development and made a financial contribution to the Milton Keynes Carbon Offset Fund in order to make the site carbon neutral.

The SSEAP covers all elements of environmental management on site, including biodiversity and conservation issues as well as potential emissions to land, air and water. Our Company's operational controls ensure that issues highlighted by a SSEAP are managed effectively to minimise our environmental impact. All SSEAPs are reviewed and updated at least once a month until construction on site is complete.

Many of our sites include green or wild spaces that have a positive impact on biodiversity with a range of examples included in this report. We are working in co-operation with planners on other initiatives, such as National Forest Planting and are planting just over half an acre of indigenous trees on the boundary of our Nottingham Road site in Ashby de la Zouch. Another example is the provision of funding for an ecological study of the River Salwarpe as part of the Section 106 agreement for our waterfront development on Kidderminster Road in Droitwich.

**Land remediation**

We have developed a broad specialism in land remediation and our Guide to Remediation for employees and contractors has resulted in a significant increase in the use of innovative remediation techniques. Moving away from the traditional 'dig and dump' approach of removing contaminated soil from sites has led to financial benefits for our company as well as a reduction in waste to landfill.

During 2006, 71% of our homes were built on brownfield land. We continue to exceed the Government target of 60% by 2008.

**Waste management**

Ongoing environmental campaigns in our UK business have resulted in a 39% reduction of waste produced per plot since 2003. We reduced our waste to landfill by a further 18% in 2006, exceeding our target of 10%. In addition, the amount of waste segregated on site for recycling increased to 74% in 2006.

We continue to work with our national waste broker, Wastefile, to reduce waste further. Our waste minimisation working group meets regularly to identify and explore new ways to improve waste management.

One 2006 waste management trial investigated how clean and inert leftover material could be reused on sites. Another trial introduced more efficient waste removal techniques, which resulted in reduced emissions from transport as well as financial savings.

We encourage and provide facilities for our customers to minimise domestic waste on some of our developments. As part of the Section 106 agreement for our Noverton Lane development in Cheltenham, we are funding the provision of recycling bins and composting facilities for the 124 homes that are currently under construction. We also provide communal waste management facilities on some sites.

**Sustainable design**

During 2006, we continued to take a proactive approach to the UK Government's ambition to increase the sustainability of new homes. This section of our CSR Report highlights some of the environmental issues that we are addressing. Case studies in the Building Sustainable Communities section of this report provide further examples of our current achievements in the environmental, social and financial aspects of sustainable design. We work closely with English Partnerships, landowners, planners, local authorities and other stakeholders to deliver high quality homes that have a wide range of sustainability features.

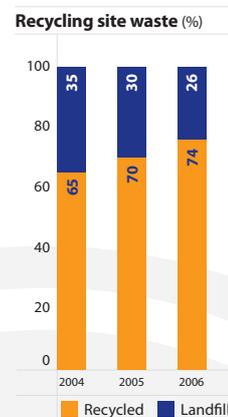
We were also involved in the consultation process on the UK Government's Code for Sustainable Homes and sponsored a research lectureship post in sustainable design at Nottingham University.

**Targets**

George Wimpey UK is committed to reducing the tonnage of waste per plot by 5% in 2007. We will also continue to work on maximising the energy efficiency specifications of George Wimpey UK's new preferred house type range.

71%

During 2006, 71% of our homes were built on brownfield land. We continue to exceed the Government target of 60% by 2008.



Percentage of UK waste recycled or sent to landfill

Zero cases

of non compliance with UK environmental legislation in 2006.