

Bellway4Good



Environment

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**Bellway**

# Environment



The protection of the environment and climate change are two of the greatest challenges industry and society as a whole faces. At Bellway we have an important role to play through minimising both the environmental impact and the carbon footprint of our operations.

We recognise that our business can impact on the wider environment in a number of ways, from biodiversity issues on development land, through to water usage and energy consumption. This section of our CR report covers of on-going work in these and other environmental areas.

## Biodiversity and Ecology

Creating sustainable communities for both now and the future means ensuring that we protect, conserve and enhance the environments in which we operate.

### Biodiversity and Ecology Surveys

For all of our individual site planning applications, we undertake a thorough risk assessment of the biodiversity in the particular area using a Phase 1 Ecology Survey. If the Ecology Survey identifies any sensitive ecological issues, these will be taken into consideration during the planning application process and the overall design of the site, with appropriate mitigation implemented prior to, or during, the construction process.

Sites within identified categories, near nature conservation areas or with environmental designations can require a detailed Environmental Impact Assessment (EIA). To determine whether this is required, we submit 'screening option' evidence to the Local Authority. This process allows us to take into consideration the environmental impacts of the development and take the necessary actions as advised by specialists.

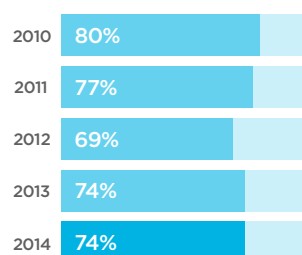
Where required we carry out Stage 1 Habitat Surveys in order to ensure we do not affect protected species such as bats, reptiles, newts, birds and badgers, as well as any necessary detailed archaeological surveys.

Examples of our current measures to protect the biodiversity of our sites include:

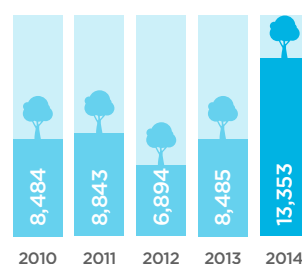
- Provision of heated and unheated bat boxes
- Relocation of badger sets
- Migration of newts to new habitats
- Tree retention and improved woodland/grasslands
- Placing bird boxes in the gardens of completed homes
- Construction of ponds on developments for both drainage purposes and to support biodiversity

We also contribute financially to assist in the protection of Special Protection Areas (SPAs), such as the Thames Basin SPA. Here, Bellway's commitment has secured the provision of alternative sites for leisure and dog walking, thereby reducing pressure on protected habitats.

PERCENTAGE OF BROWNFIELD SITES DEVELOPED



NUMBER OF TREES PLANTED



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# Biodiversity and Ecology

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## Sustainable Development

Recent planning reforms, including the National Planning Policy Framework published in 2012, have placed a greater emphasis on sustainable development, not development at any cost. The Framework introduced a 'presumption in favour of sustainable development' to ensure that local planning authorities identify and plan for the development which their areas need, and to make clear that applications that will deliver sustainable development should normally be allowed.

In 2013/14 74% of our new homes were built on brownfield land. The redevelopment of brownfield land helps us to improve the local environment and allows a long term plan of ecological biodiversity to be implemented. In addition, redeveloping brownfield land can have a significant positive effect on the local community, helping to reduce crime, increase local employment and create planned green spaces.

## Green Spaces

The provision of open spaces and the planting of trees and shrubs not only improves drainage and biodiversity opportunities. It also provides customers with the opportunity to use and enjoy such spaces in the vicinity of their new homes. In 2013/14 we planted 152,183 trees and shrubs (averaging 22.2 per home built).

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## 2014/15 Commitment

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We commit to positively engage with local authorities to promote biodiversity and ecological enhancement initiatives connected with our proposed developments.

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## Case Study

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### Biodiversity habitat

Planning permission was granted by the Secretary of State in 2013 for a housing development consisting of 366 homes on an area of agricultural land (known as Whitehouse Farm, Killingworth) historically owned by Bellway.

An ecological assessment undertaken at the time of the planning application identified that the site was being used as habitat for a variety of ground nesting bird species, including Lapwing, Yellowhammer, Skylark and Grey Partridge.

The Local Authority and the Secretary of State deemed that the development of the site would have a detrimental effect on the habitat used by these ground nesting birds.

Therefore to mitigate against the loss of the habitat Bellway purchased a 59 acre field in Seghill (located approximately 3 miles to the north of the Whitehouse Farm site) and are currently implementing a full biodiversity offsetting strategy. The creation and subsequent management of this alternative habitat for ground nesting birds will secure an overall net gain in suitable habitat and lead to an overall net gain in the displaced bird species in the local area.

Once the habitat has been created the site will be gifted to a Local Nature Conservation body. This will secure the ecological benefit of the scheme in perpetuity.

### Rehousing reptiles at St Clement's Lakes

Before construction work could begin at St Clement's Lakes in Greenhithe (Kent), a conservation programme was carried out to relocate the grass snakes, common lizards and slow worms to a more suitable habitat nearby.

The new habitat has reptile proof fencing to keep the reptiles within the new area. It is also rich in biodiversity, with long grass and lots of wildflowers typical of chalk grassland, as well as a number of insects and butterflies. The habitat also contains several hibernacula, providing a suitable home for hibernation in the winter months.

The ecological team from AA Environmental Limited spent two months locating and removing reptiles from the construction site to the more suitable habitat close to the site. The site will be managed for the benefit of nature conservation during the development's construction to ensure the ongoing protection of the wildlife.



# Energy



We are continually working towards more efficient energy use and by targeting a reduction in our energy consumption we aim to minimise our carbon footprint. In order to deliver this change, the Bellway4Good Working Committee plans to challenge our employees in relation to energy consumption, with specific campaigns to encourage changes in behaviour. We will also looking at new technologies to help us lower our energy use in all areas of the business, from our offices and construction sites, to our sales centres and show homes.

## Carbon Footprint

We calculate our annual carbon emissions using the Department for Environment, Food and Rural Affairs (DEFRA) conversion factors, with our results reported to the Carbon Disclosure Project as well as published in our latest Annual Report where they are subject to scrutiny by our external auditors KMPG (link to Results & Reports page on corporate site).

## Energy Audits

We also plan to undertake energy consumption audits, enabling us to make further improvements to our offices and sites wherever possible. Initiatives already introduced include:

- Changing from hand driers to towels
- Controlling the heating via thermostats
- Use of timed devices and sensors to control lighting
- Training our employees and sub-contractors in good practice, such as turning off electrical equipment and lighting when not in use

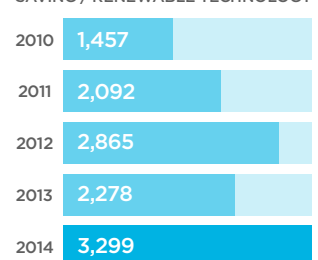
## Construction

Our homes are constructed to the relevant Building Standards, allowing us to minimise our environmental impact through the construction phase and our customers' impacts on the environment after they have taken ownership of the property. We use a range of renewable energy technologies on some of our developments, such as solar panels, photo-voltaic panels, air source heat pumps and ground source heat pumps. To help our customers save energy, we use low energy lighting, insulation and boilers that either meet or exceed current building regulations. Windows are double-glazed and appliances are A-rated or better for energy consumption.

## Customers

Our informative home owner packs include our 'Go Green' information sheet, developed specifically for customers to help them make informed environmentally-friendly choices about how they live in their property, ensuring that they have the best possible environmentally friendly experience of a Bellway home from the moment they move in.

NUMBER OF HOMES WITH ENERGY SAVING / RENEWABLE TECHNOLOGY



## 2014/15 Commitment

- We will help our customers reduce their energy consumption by providing more than 90% energy efficient lighting in our new homes.
- We will seek to design new sites to achieve an average energy efficiency of at least 5% better than the applicable building regulations standard.

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# Water

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Our developments are designed to take into account the effect our operations have on the environment and the ways in which we can support customers in helping to reduce their water usage.

## Flood Mitigation

When a new site is identified, we assess the potential environmental impacts of development, including the consequences for the water cycle. The risk of flooding is considered at all stages of a project, from initial design through to construction. Flood risk assessments and surveys are carried out and drainage experts are involved in site master planning. Each construction phase is planned with a view to protecting sites and their neighbours before other works begin.

Where we create new hard-standing areas, such as roads and foundations, in areas which were naturally porous, we take measures to reduce the level of run-off water. We support the use of porous paving, building pumping stations and creating water drainage systems, such as Sustainable Urban Drainage Systems (SUDS). SUDS are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses. By mimicking natural drainage systems, SUDS aim to reduce surface water flooding, increasing water storage capacity, improve water quality and reduce the transfer of pollution to the water environment. In 2013/14, we installed 144 SUDS systems into our developments.

## Domestic Water Use

To aid our customers in their water use reduction, all Bellway new homes incorporate reduced water use measures. Some of these reduction measures include dual flush lavatories which use one third less water, low overflow devices on baths, kitchen tap flow reduction devices and aerating water in showers. Where possible, we incorporate water efficient considerations into the design, such as the use of grey water recycling (water diverted from sinks into the lavatory cisterns) to flush lavatories.

Bellway also supplied 968 water butts to customers in 2013/14 for rainwater harvesting in order to reduce customers' needs to use hosepipes in the summer months.

With these technologies in place, we have reduced the average water consumption in our homes from 150 litres to a maximum of 125 litres per person, per day. This provides financial savings for our customers as well as ongoing wider environmental benefits.



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## 2014/15 Commitment

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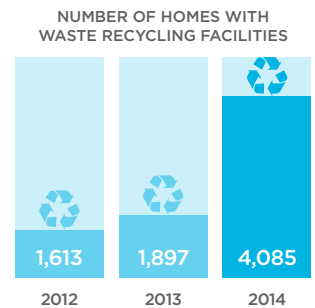
- We will investigate ways in which we can more accurately measure our water consumption with the aim of understanding our areas of significant usage and, in the future, setting longer term targets for water use reductions.

## Domestic Waste



We recognise that our customers need to be able to dispose of their domestic waste in a practical manner, while taking into consideration the environmental impacts of waste disposal. To support our customers in making environmentally friendly decisions we incorporated internal recycling facilities as a standard feature in over 4,000 of our homes.

Our longer term plans also include providing more detailed information in our homeowner information packs, highlighting the importance of recycling domestic waste and including details of the nearest local authority recycling centres.



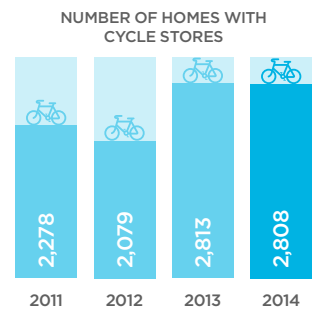
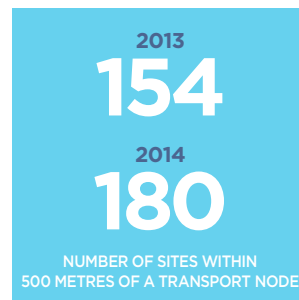
## Transport and Connectivity



Location plays a key role in deciding on a new home. We help our customers to make the right choice in relation to the location of the site by providing a range of information in site-specific literature, known as 'My Space'. The document is held in the sales office for potential customers to view, so they can decide for themselves whether the location is right for them.

### Travel Links

Specific data may include details of public transport (bus and trains) timetables, the location and contact details of services such as local libraries, doctors and dentists, and distances to motorway links. Public transport links can be a deciding factor when purchasing a new home and in the last financial year (2013/14), 180 of our sites were within 500 metres of a public transport connection and we provided cycle storage for 2,808 homes.



### Company Cars

In our business operations we also promote the use of environmentally friendly transport. We promote car-sharing on our developments by both employees and sub-contractors. All company cars have emissions below 130g/km of CO<sub>2</sub> to help reduce carbon emissions. This limit is monitored and 42% of the fleet have emissions of less than 100g/km of CO<sub>2</sub>, with an average emission level of 108g/kg of CO<sub>2</sub> across the whole fleet. Vehicles are maintained in accordance with manufacturer requirements to help reduce CO<sub>2</sub> emissions and maximise fuel efficiency.

## 2014/15 Commitment

We will provide customers with information on sustainable transport links in and around their chosen development, improving connectivity options for them as they settle into their new communities and surrounding areas.

## Case Study

### Getting residents cycling

An estimated 3.1 million people ride a bicycle each month according to the NHS Choices website, which also champions the health benefits of regular cycling. At the Five Mile Park development Bellway linked up with North Tyneside Council to encourage people to consider sustainable forms of transport.

Residents were invited to have their bikes checked over by specialist bike repairers and received a comprehensive travel pack which included details of local public travel services, a travel voucher worth £80 (for use on public transport or in a local bike shop) and a local cycling map.



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# Climate Change

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Bellway recognises the significant effect carbon emissions have on the climate and as a responsible organisation, seeks to actively manage this risk. To do this, we employ a methodical approach of measuring emissions, evaluating processes, communicating findings and reviewing strategy on an ongoing basis.

## Carbon Measurement & Reporting

Over the years, we have established more accurate methods of recording data as well as simpler techniques of quantifying output. We have also improved our approach to communicating these measures with our stakeholders, such as our carbon footprint disclosure in our Annual Report & Accounts and our participation in the annual Carbon Disclosure Project (CDP), a voluntary disclosure which follows the principles and guidance for carbon emission calculation and reporting as directed by the EU. In 2014 we received a score of 81 out of 100 for disclosure (up from 61 in 2013) and were ranked in performance band C (up from band D in 2013).

## 2013/14 Carbon Footprint

We measure and categorise our emissions by fuel and gas (including diesel and petrol used on our developments and for travel on Company business) and electricity use.

In the financial year 2013/14:

- Fuel and gas (Scope 1) = 9,335 tonnes of CO<sub>2</sub>e
- Travel and electricity (Scope 2) = 3,509 tonnes CO<sub>2</sub>e
- Total = 12,844 tonnes of CO<sub>2</sub>e

This equates to 1.87 tonnes of CO<sub>2</sub>e per home constructed or 6.5 tonnes of CO<sub>2</sub>e per employee.

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# Case Study

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## Green roof

As part of the development at 'Sirocco Park' in Eastleigh, Hampshire, Bellway constructed a 'green roof' above a secured parking area.

A first floor podium deck within a 3 and 4 storey horseshoe apartment block was constructed as secure covered parking with the raised podium deck over the parking court given over to a private communal garden using the 'Bauder, Total Green Roof System'. A water reservoir, filter membranes and engineered top soil provided an 'Intensive Green Roof' that included grassed areas, trees within raised planters, footpaths and bollard lighting.



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# Environmental Policy

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The house building process impacts on the environment through the use of land and consumption of resources in the development process. It is our objective to ensure that at the conclusion of a development, an attractive and sustainable new community has been created with the minimum possible impact on the wider environment.

Recognising that we have a responsibility to limit damage to the environment, our key objectives are to manage the environmental impacts across the business:

- Minimise any adverse effects on the environment and, where possible, to seek environmental enhancements, concentrating on areas where there is most scope for improvement
- Aim to meet, and where practicable, exceed all relevant environmental legislation and regulations
- Improve our environmental performance
- Set specific environmental commitments and targets and periodically review progress against these targets
- Ensure that our environmental aims and their importance are communicated throughout the Group, including appropriate subcontractors and suppliers, and that a copy of the policy and relevant procedures are available at our sites and offices and on our website
- To consider the role that we can play in helping to contribute to the principles of sustainable development
- Recognise and respond to the challenges and opportunities that are presented by climate change

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# Climate Change Policy

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The way in which Bellway manages its business today can have an effect on the environment in the future, through the way in which our homes are constructed, the energy required to build them and the energy our customer use while living in them.

As a major developer of new homes in the UK, we realise that we have a significant role to play in combating climate change and reducing GHG emissions and we define our position on this issue by:

- Supporting precautionary action on climate change while recognising that aspects of the science are still evolving and remain the subject of expert debate.
- Believing that climate change is a long-term issue and support urgent but informed action to stabilise GHG concentrations by achieving sustainable long-term emission reductions.
- Supporting an inclusive approach that acknowledges the existence of many different starting points, priorities and solutions.
- Believing that government and business must work together to create policies that contribute towards the provision of new homes while at the same time reducing emissions.

At Bellway we will focus our efforts on:

- Working to ensure that we achieve or exceed the energy efficiency of new homes in accordance with environmental standards, as dictated by the building regulations.
- Evaluating the materials used during the construction process. Where suitable and economically viable, selecting products from supply chain partners which limit harmful GHG emissions both in their manufacture and subsequent use.
- Continue to inform and encourage customers to follow practices that have a less harmful effect upon the environment.
- Reducing our carbon emissions by reducing energy consumption.