

# OPERATIONS

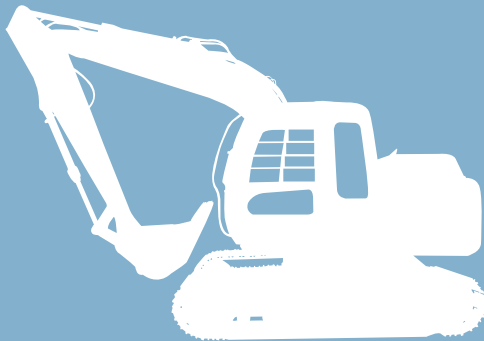
Running our business efficiently and considerately and working with our supply chain

This summary report covers the period 1 May 2012 to 30 April 2013 ("2013")



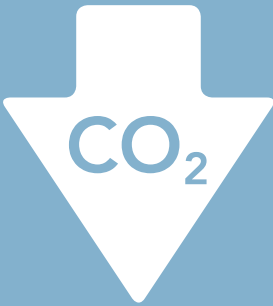
FIRST

Major house builder to sign up to the Prompt Payment Code



35.9/40

Average Considerate Constructors Scheme score (May to December 2012)



7%

Reduction in operational carbon emissions per operative on site

## Supply Chain

Considering the environmental and social impacts of the supply of materials and maintaining a highly skilled site workforce

## Community Relations

Operating our sites with consideration to local people and getting involved with the community

## Environmental Management

Reducing the use of resources, such as water and energy, and recycling waste

# OPERATIONS

## Our Vision for 2020

Sustainability will be fully integrated into our business strategy and operations. We will have developed excellent partnerships with our supply chain to ensure high quality materials and services are consistently provided, and environmental, social and ethical impacts are minimised. We will continue to conduct our operations in an environmentally efficient manner and with consideration to our neighbours.

## Developing our Approach

This section of our framework has been developed during 2013 to focus on our day-to-day operations, from the inputs to the business to the running of our sites. Some of the most significant impacts of our work may occur indirectly as part of the wider supply chain in the extraction, processing and transportation of materials and as a result of contractors working on our sites. Running a sustainable business is also dependent upon managing day-to-day operations efficiently and with consideration to local people.



Our vision  
for the future

## Risks and Opportunities

### Key Risks

**Disruption to the supply of materials or services**

### Financial Impacts

Costs of finding alternative suppliers and/or delays to the build programme.

Reputational damage if associated with unethical supply chains.

### Management through Vision2020

Integrate an assessment of sustainability into our selection process.

Communicate our sustainability requirements to all contractors.

**Negative impact on local communities**

Reduced likelihood of gaining planning permission within the same area.

Delays to the build programme if work is stopped due to nuisance issues.

Undertake regular sustainability assessments on all sites.

Sign up to the Considerate Constructors Scheme (CCS).

### Key Opportunities

**Developing a reliable and stable supply chain**

### Financial Impacts

Reputational benefit of association with suppliers which demonstrate strong performance and approach to sustainability.

A local supply chain could offer cost savings and enhanced flexibility.

### Management through Vision2020

Work with suppliers to improve sustainability performance of their product or service.

Integrate an assessment of sustainability into our formal selection process.

**Using resources efficiently**

Lower operating costs due to efficiencies and lower waste disposal costs.

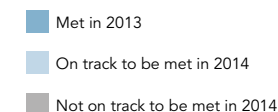
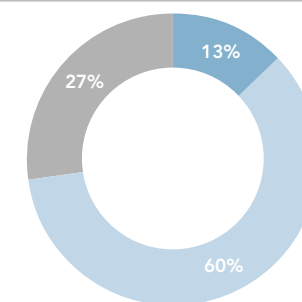
Reputational benefit.

Set performance targets such as reducing carbon emissions and water usage by 3% on sites, and re-using or recycling at least 85% of waste.

## OPERATIONS

### Progress at a Glance: mid-term review against two year commitments 2012-2014

Supply Chain	Communicate our sustainability requirements to our contractors through our Management Rules.	→	Our Group Management Rules contain a Code of Practice for Contractors: Sustainability Management on Construction Sites which sets out our requirements. Project teams must provide contractors appointed under older Management Rules with the Code of Practice.
	Work with our suppliers to improve the sustainability performance of their product or service.	→	We have identified certain operating companies and projects to progress this commitment during 2014.
	Integrate an assessment of the sustainability of products, suppliers and contractors into the formal selection process.	→	The initial call-off process has been amended to include new sustainability questions for all contractors which wish to tender for work. Further work is planned in 2014 to integrate sustainability into the final decision-making process at a project level.
	Develop and implement a process or system to increase the number of local contractors working on at least one of our developments.	✓	Our Royal Wells Park project has implemented this commitment.
	Ensure that all timber purchased by Berkeley is certified by a timber certification scheme.	→	Divisions ensure that all timber procured by Berkeley is certified to FSC or PEFC standards. In 2014 further processes will be rolled out to collate additional evidence to demonstrate compliance.
	Establish the recycled content of at least one completed apartment and at least one completed house and develop alternative specifications to increase recycled content.	→	This commitment is in progress at King Harry Park. Results will be analysed in 2014.
Community Relations	Register all sites with the Considerate Constructors Scheme and achieve a minimum of 35 points in site audits (32 points prior to January 2013).	→	All construction sites were signed up to CCS in 2013. Average audit scores exceeded the benchmarks. Of the 95 audits which were undertaken, two sites did not meet the commitment.



## OPERATIONS

### Progress at a Glance: mid-term review against two year commitments 2012-2014

Environmental Management	Monitor and maintain office carbon dioxide emissions per m <sup>2</sup> at or below 2011/12 levels.	→	There was a 17% increase in emissions per m <sup>2</sup> compared to 2012 levels. Efforts to fulfil the commitment will continue during 2014.
	Monitor and maintain office water use per person at or below 2011/12 levels.	→	There was a 34% decrease in water consumption per person in our offices in 2013 compared to 2012 levels.
	Conduct energy/carbon audits on our offices and implement carbon reduction initiatives that have acceptable payback periods.	→	An audit has been undertaken on one of our permanent offices. The initiatives recommended will be reviewed and implemented during 2014. We have also identified two site offices on long-term strategic projects where energy/carbon audits will take place in 2014.
	Reduce average site carbon dioxide emissions by 3% per site operative by May 2014.	→	There was a 7% decrease in emissions per operative based on 2012 levels.
	Reduce average site water consumption by 3% per site operative by May 2014.	→	There was a 20% increase in consumption per operative based on 2012 levels. Efforts to fulfil the commitment will continue during 2014.
	Re-use or recycle over 85% of construction, demolition and excavation waste.	→	93% of construction, demolition and excavation waste was re-used or recycled in 2013.
	Conduct biennial sustainability reviews at our permanent offices and target a 20% reduction in paper consumption per office worker at each review.	→	Sustainability reviews are scheduled to be undertaken in 2014, including an assessment of paper consumption.
	Undertake regular sustainability assessments on all construction sites.	✓	Sustainability assessments are undertaken on a four monthly basis. A written report is provided highlighting any actions required and recommendations for good practice.

# OPERATIONS

## Supply Chain

**We are committed to:**

- Communicating our sustainability requirements to our contractors through our Management Rules
- Integrating an assessment of the sustainability of products, suppliers and contractors into the formal selection process
- Ensuring that all timber is certified by a timber certification scheme
- Trialling processes to increase the number of local contractors working on our sites
- Establishing the recycled content of some of our completed homes and developing alternative specifications to increase recycled content
- Working with our suppliers to improve the sustainability performance of their product or service

We recognise that we use large quantities of materials and that some of the most significant environmental and social impacts of our operations may arise indirectly as part of the wider value chain. We want to work in partnership with our suppliers and contractors to minimise these impacts.

From this year, all contractors wishing to tender to work on a Berkeley site must confirm they have appropriate policies and systems in place to address social and environmental issues, in addition to business risks and issues like health and safety.

In terms of the legal and sustainable sourcing of timber we have now pledged that all timber, temporary and permanent, directly and indirectly sourced, must be certified to either Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification (PEFC) standards.

To give certainty to our suppliers, and particularly small businesses, we registered for the Prompt Payment Code in December 2012, committing to pay contractors in a timely manner. We were the first major house builder to do so.

### First

Major house builder to sign up to the Prompt Payment Code

### 100%

New target for sustainable sourcing of timber

# OPERATIONS

## Supply Chain

### From Vision to Reality: Selecting contractors

Before tendering for work with us, our contractors must pass a basic health and safety, financial and sustainability appraisal. During 2013 we changed the process for all contractors who wish to tender to work on a Berkeley site; in addition to issues such as health and safety, the initial questionnaire now also includes social and environmental questions to encourage contractors to have appropriate policies and systems in place, for example those covering checks on labour practices for the supply chain. We are working with our contractors, and particularly the smaller companies, to help ensure these are in place and that they support our sustainability aspirations.

Contractors must also confirm that they will adhere to Berkeley's high standards and meet various Codes of Practice. For example, in 2012 a new Code of Practice: Sustainability Management on Construction Sites for Contractors was incorporated into the Management Rules. This sets out the sustainability standards expected from all contractors working on our sites.

We select only those companies with the highest standards. Where practicable and within the framework of commercial value, our [Sustainable Procurement Policy Statement](#) commits us to selecting services that are environmentally and/or socially preferable.





# OPERATIONS

## Supply Chain



### From Vision to Reality: Supporting local contractors

The Berkeley Group does not operate a centralised procurement function, as we believe that project specific sourcing better reflects the individual design and specification of each of our unique developments. This also allows us to work with smaller, local businesses which support the local economy in the areas where we operate.

For example, at Roman House, we have developed a local procurement strategy and are working in partnership with Supply Cross River whose aim is to develop supply chains in central London to further stimulate local economic growth. Supply Cross River recommends local suppliers that could be included within the tendering process and arranges 'meet the buyer' events where we are able to meet local businesses.

At Royal Wells Park, a strategy is in place to facilitate the use of contractors from within the local borough. A standard clause is included in all the tender applications requiring that successful contractors must adopt the use of local operatives wherever possible. A 'meet the employer day' was held in May 2013 in conjunction with the local job centre to create links between employers and potential employees. The event was well attended and the job centre is currently analysing feedback from the event. It is expected that these events will be carried out periodically as the project progresses.

## OPERATIONS

### Supply Chain

#### From Vision to Reality: Procuring sustainable timber

Legal and sustainable sourcing of timber is key to the company and is an area in which we continue to strengthen our approach.

During 2013 we met with the Programme for the Endorsement of Forest Certification (PEFC) and, as a result, we reviewed our current operations and updated our [Sustainable Procurement Policy Statement](#). We ensure that all timber and wood-based products originate from known and legal sources. Notably, we have now amended our commitment from ensuring that all directly procured timber is certified to ensure that all timber used on a Berkeley site is certified to either FSC or PEFC standards, whether it is purchased directly by us or by a contractor on our behalf. For wood-based products, we will continue to work with our supply chain to promote the use of certified timber.

At Saffron Square we undertook an internal review to ascertain the risk to the project prior to the EU Timber Regulations coming into force in March 2013. This process involved engaging with all suppliers to confirm the original country of origin of all timber and wood-based products and recording the outcome in a central database. The team has used a timber tracker to record sourcing details of all deliveries to date, including Chain of Custody (CoC) certification details and delivery notes to ensure we have the full audit trail.





# OPERATIONS

## Supply Chain



### From Vision to Reality: Sourcing sustainable materials

In addition to timber, we recognise that we use a significant volume of other materials. Through our [Sustainable Procurement Policy Statement](#) we are committed to selecting environmentally and socially preferable materials where these are of high quality and feasible cost.

BRE's Green Guide to Specification is a useful tool to guide us towards products with a lower environmental impact. At King Harry Park we have specified roof tiles with an A+ rating. Much of our blockwork and brickwork at the site also achieves the BES 6001 standard for the responsible sourcing of construction products. At Woodberry Park Kick Start Site 3, a recycled aggregate, SmartR, was specifically selected for its environmental credentials and 90% of the hoarding panels were re-used from other phases.

We continue to work in partnership with our materials supply chain to help reduce our environmental impact and achieve our sustainability aspirations. At Emerald Square we have liaised with Woodside Cast Stone Ltd to initiate a take-back scheme for pallets delivered with the stonework to reduce timber waste on site. At One Tower Bridge we have worked with the supplier Wienerberger, to reduce brick wastage, both by establishing alternative storage arrangements in the warehouse to ensure minimal damage occurs and by agreeing a take-back scheme for bricks on site which do not meet the high standards of the project but may be suitable for use elsewhere.

## OPERATIONS

### Community Relations



Primary school visit to Fulham Reach

**We are committed to registering all sites with the Considerate Constructors Scheme and targeting a best practice score of 35/50 in all site audits**

We aim to conduct our operations with minimal disruption to the communities in which we work and to develop good relationships with local people and authorities. We want to ensure that we build considerately from the outset.

In this way, we can improve our efficiency by minimising complaints and regulatory involvement whilst improving community relations. Each of our sites aims to communicate and engage with their local communities, from sending newsletters to hosting school visits and open days.

All of our construction sites are registered under the voluntary Considerate Constructors Scheme (CCS) and its Code of Practice. Our audit scores continued to increase to an average of 35.9/40 until December 2012, compared to 35.7 in 2012. We have now adjusted our commitment to a score of 35/50 in each audit, in line with the new Code of Practice which was launched in January 2013. We score consistently above best practice guidelines and industry averages. Our performance is regularly recognised by the Scheme, with Berkeley receiving 20 awards at the 2013 National Site Awards.

Data on our performance is available in the Data Appendix on page 16.

## 39.5/40

Average Considerate Constructors Scheme score (May to December 2012)

## 20

Awards at the Considerate Constructors Scheme National Site Awards 2013

## OPERATIONS

### Community Relations

#### From Vision to Reality: Considerate construction

Our continued commitment to being a considerate constructor is regularly recognised, with Berkeley receiving 20 awards at the 2013 Considerate Constructors Scheme National Site Awards. This included 3 Gold, 7 Silver and 10 Bronze awards, with the awarded sites performing in approximately the top 10% of UK construction sites.

As well as achieving a Gold Award, the second phase of our Kidbrooke Village development was also a runner-up for the Most Considerate Site Award due to the implementation of many initiatives such as giving presentations to local schools on the construction works being undertaken, assisting in the clean-up of a nearby river and organising fundraising events such as football tournaments and cycle challenges. Through the provision of labour and materials, the site also helped to refurbish a youth club to create a new community facility. 'OneSpace' is a purpose-designed centre with both indoor and outdoor facilities serving the local community with a particular focus on recreational and educational opportunities for children, young people and their families.

At the Crossrail station box at Royal Arsenal Riverside, inviting local schools and the general public to site during the construction was key to its success in the community. An open day was also held on completion of the station box, attended by over 300 members of the public. Visitors were provided with a guided tour by the engineers that worked on the project and a fun run was also held within the station box, raising over £3,000 for Demelza House Children's Hospice.



Lee Greenwood receiving the Most Considerate Site Runner-up award for Kidbrooke Village (Phase 2)



# OPERATIONS

## Environmental Management

### We are committed to:

- Undertaking regular sustainability assessments on all construction sites
- Reducing average site carbon dioxide emissions and water consumption by 3% per site operative by May 2014
- Re-using or recycling over 85% of construction, demolition and excavation waste
- Monitoring and maintaining office carbon dioxide emissions per m<sup>2</sup> and water use per person at or below 2011/2012 levels
- Conducting biennial sustainability reviews at our permanent offices and targeting a 20% reduction in paper consumption per office worker at each review
- Conducting energy/carbon audits on at least one of our offices and implementing carbon reduction initiatives that have acceptable payback periods

All construction sites are regularly assessed on compliance with legal requirements, planning conditions and industry good practice to help us to reduce the risk of regulatory involvement and to maintain our record of zero environmental prosecutions.

We monitor energy and water usage monthly and set targets for reduction. During 2013 our operational site carbon emissions have reduced by 7% to 2.2 tonnes CO<sub>2</sub>e per year (2012: 2.4 tonnes CO<sub>2</sub>e). During the same period our water usage per operative has increased by 20%; principally this was due to significant water demands to ensure effective dust suppression during an intensive demolition phase on one particular site.

Our strategy for waste is not only to reduce the volume produced, but to ensure that we re-use or recycle as much as possible; this year we achieved a rate of 93%.

Detailed data on our environmental performance is provided in the Data Appendix on page 16.

# 7%

Reduction in operational carbon emissions per operative on site

# Zero

Environmental prosecutions

# OPERATIONS

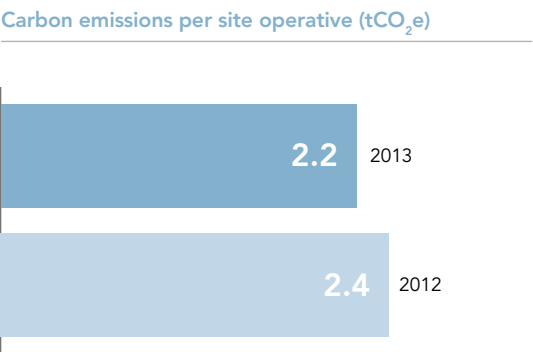
## Environmental Management

### From Vision to Reality: Reducing energy and water consumption

Carbon emissions continue to be a pressing matter for us within our operations. We participate in the CRC Energy Efficiency Scheme and are pleased to report that an Environment Agency audit confirmed we have a very high level of compliance. We monitor energy usage and emissions monthly and set stringent targets for reduction. We continue to procure energy efficient facilities for our sites and increase awareness amongst site operatives and office staff.

In 2013, we reduced our site carbon emissions per site operative by 7% and sought specialist advice on new ideas for reduction. In 2014 we will use this information to roll out updated checklists for both site teams to use during operation and the commercial team to consider during procurement of facilities and plant and tendering for contracts.

In 2013 our site water consumption increased by 20%. Whilst water usage, as with energy, is highly dependent upon site activities and particularly demolition requirements, we continue to try to reduce usage where possible. Small scale solutions, such as water butts, waterless urinals, low flow faucets and dual flush toilets, are commonplace across our sites and offices. On a number of our construction sites rainwater harvesting has also been installed to supply the site welfare facilities. This includes the installation of systems at Saffron Square, One Tower Bridge and Goodman’s Fields to serve the temporary welfare facilities and the procurement of a rainwater harvesting system for the temporary offices at Highwood.



# OPERATIONS

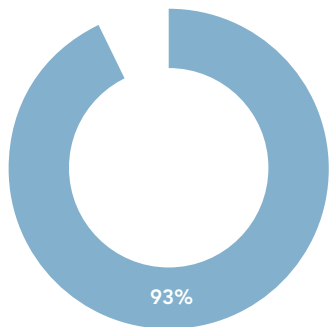
## Environmental Management

### From Vision to Reality: Waste management

Our efforts to reduce both the volume of waste we generate and the volume we send to landfill are driven not only by environmental concerns, but also by the rising landfill tax. This is reflected in our commitment to re-use or recycle at least 85% of construction, demolition and excavation waste from all our projects. We are pleased to report that in 2013 we re-used or recycled 93% of waste.

We also aim to reduce waste, and last year created company-specific waste targets against which to benchmark ourselves. Since then we have begun work with WRAP to help with the creation of new and improved industry-wide benchmarks.

#### Re-use and recycling rate



Our actions to date to reduce waste have been delivered through a range of measures including training and improved site signage. Regular feedback to sites on their performance is also key; charts of waste information are produced on a quarterly basis for display on site to keep operatives informed of waste volumes and to highlight to the project teams any waste streams which need to be actively minimised or managed.

A key to improving the recycling rates of many of our sites has been through the increased use of partnerships with charities and social enterprises. For example, Cambridge Riverside is just one of our sites where we have used the National Community Wood Recycling Project (NCWRP) as a route for timber waste. This social enterprise helps us to increase our recycling rates whilst creating work and providing training and volunteering opportunities for disadvantaged people. Our Kidbrooke Village development has also found a beneficial route for some of its timber waste, having provided Age UK's 'Men in Sheds' project with hoarding plywood and timber offcuts that were then transformed into objects such as beehives, bird boxes and bat boxes.



# OPERATIONS

## Environmental Management



Presentation of the Green Line award at the Crossrail box in Woolwich

### From Vision to Reality: Site sustainability management and performance

Our sustainability management system contains a number of procedures that are designed to minimise the risk of pollution during the construction process. The procedures require good practice air and water pollution controls to be applied on all construction sites and a pollution incident response plan must be in place and be followed in the event of an incident occurring. There are specific procedures that relate to activities with the highest environmental risk, including vehicle refuelling and hazardous substance handling and storage.

Compliance with these procedures in addition to legal requirements and planning requirements is checked by our Sustainability Team as part of their regular construction site sustainability assessments.

Our development of the Crossrail station box at Royal Arsenal Riverside was awarded the Crossrail Green Line award for its high standards in managing environmental issues on site. The presentation was made at our community fun run and open day in February 2013.

## OPERATIONS

For notes on the 2009 - 2012 data presented here, please refer to our historical Sustainability Reports.

### Data Appendix

#### Community Relations

	2009	2010	2011	2012	2013	Indicator	Further Information
<b>Considerate Constructors Scheme (CCS)</b>							
Percentage of sites registered under the Considerate Constructors Scheme (CCS)	100%	99%	100%	100%	100%	Vision2020	This covers all sites where the Berkeley Group is the Principal Contractor.
Average score in the Considerate Constructors Scheme (CCS)	34.5	35.3	35.5	35.7	35.9 (May-Dec 2012) 38.3 (Jan-Apr 2013)	Vision2020	The CCS scheme was revised on 1 January 2013. A maximum score of 50 is available under the new scoring system compared to the previous maximum available score of 40. Of the 95 audits undertaken on our sites in 2013, two sites did not meet our commitment. Both visits occurred after January 2013 under the new scoring system.

#### Environmental Management

	2009	2010	2011	2012	2013	Indicator	Further Information
<b>Greenhouse gas emissions</b>							
Total direct and indirect greenhouse gas emissions by weight (tCO <sub>2</sub> e)	8,234	8,073	16,037	24,003	25,557	GRI EN16 GRI EN17	Figures for fuel and electricity usage have been calculated from data gathered for GRI EN3 and EN4. Please refer to these indicators for notes on data collection and coverage.
<i>Total direct and indirect greenhouse gas emissions by weight broken down by activity (tCO<sub>2</sub>e)</i>							
- Permanent Offices	5,492	6,173	1,622	1,486	1,799	GRI EN16 GRI EN17	Defra/DECC's GHG Conversion Factors 2012 have been used for our 2012 and 2013 data. The Defra/DECC's GHG Conversion Factors for 2011, 2010 and 2009 have been used for our 2011, 2010 and 2009 data respectively.  In addition to carbon dioxide, the CO <sub>2</sub> equivalents used include the global warming potential from methane and nitrous oxide. Remaining gases (HFC-134a, HFC-143a and Sulphur hexafluoride (SF6)) are believed to be relatively insignificant for reporting on emissions arising from our activities.  a) 2013 Business Travel  Emissions arising from business travel have been calculated for fleet cars owned by the Berkeley Group, privately owned vehicles used by cash allowance recipients and air travel.
- Sites			12,598	20,063	20,758		
- Sales and Marketing Suites and Show Homes			592	874	1,207		
- Business Travel <sup>a</sup>	2,742	1,900	1,225	1,580	1,793		

## Environmental Management (Continued)

	2009	2010	2011	2012	2013	Indicator	Further Information
<i>Total direct and indirect greenhouse gas emissions by weight broken down by scope<sup>b</sup> and source (tCO<sub>2</sub>e)</i>							<i>Company car and cash allowance recipients</i>
- Scope 1	3,490	2,987	3,055	3,373	3,173		Emissions were calculated by multiplying the CO <sub>2</sub> emissions (gCO <sub>2</sub> /km) of each vehicle model by the annual distance travelled. The percentage of emissions attributable to petrol and diesel vehicles is based on a ratio established in previous years: 72% diesel/28% petrol for company vehicles and 46% diesel/54% petrol for vehicles used by cash allowance recipients. Motorbikes were assumed to be petrol fuelled.
- Natural Gas	168	211	194	280	470		Company vehicles comprised 220 cars and 23 vans. 26% of the annual distance driven in company vehicles was estimated by employees. One company car was excluded from the calculations due to insufficient data on mileage.
- Gas Oil	579	1,265	2,004	1,950	1,543		371 cash allowance recipients used private vehicles for business travel in 2013 (369 used cars and 2 used motorbikes). CO <sub>2</sub> emissions data was not available for 10 cars, so an average of the remaining data (163gCO <sub>2</sub> /km) was used for these. For one motorbike for which CO <sub>2</sub> emissions data was not available, the average factor from the 2012 Defra/DECC's GHG Conversion Factors was used.
- Diesel	-	1,097	493	664	706		47 cash allowance recipients changed their car during the year with annual mileage allocated proportionally to the period of the year that each car was owned. 19% of the annual distance travelled by cash allowance recipients was estimated by employees. Information for 15 cash allowance recipients was excluded from the calculations due to insufficient data on vehicles used for business travel and mileage.
- Petrol	0	413	337	454	438		<i>Air travel</i>
- LPG	-	1	27	26	16		472 domestic, short-and long-haul flights were taken in 2013. Emissions were calculated using the distance travelled on each flight multiplied by the appropriate emissions factor from the 2012 Defra/DECC's GHG Conversion Factors (domestic = 0.20124kgCO <sub>2</sub> e/km; short-haul = 0.11486; long-haul = 0.13143. Average emission factors were used). An uplift factor of 1.09 was also applied in line with the IPCC Special Report on Aviation and Global Atmosphere 8.2.2.3, to take into account non-direct routes and delays/circling. No aviation radiative forcing factor has been applied.
- Fuel usage (business travel)	2,742	-	-	-	-		b) Scope details
- Scope 2	4,744	3,968	5,801	7,191	9,719		- Scope 1 relates to directly consumed fuels: natural gas; directly purchased gas oil and LPG for site use; and diesel and petrol relating to business travel by company car and cash allowance recipients.
- Electricity (UK)	4,744	3,968	5,801	7,191	9,672		- Scope 2 relates to consumed electricity.
- Electricity (Hong Kong)	-	-	-	-	41		- Scope 3 relates to indirectly consumed fuels: contractors' purchased gas oil, petrol and LPG for site use; business air travel; and indirect fugitive emissions (associated with the extraction and transportation of primary fuels purchased directly and by our contractors, as well as the production and delivery of fuels for electricity generation).
- Electricity (Singapore)	-	-	-	-	7		
- Scope 3	-	1,118	7,181	13,439	12,665		
- Gas Oil	-	-	4,791	9,631	8,626		
- Petrol	-	-	5	31	15		
- LPG	-	-	28	77	59		
- Indirect fugitive emissions	-	1,009	2,127	3,484	3,568		
- Fuel usage (air travel)	-	109	230	216	397		

	2009	2010	2011	2012	2013	Indicator	Further Information
Greenhouse gas emissions – intensity metrics							
Greenhouse gas emissions intensity from buildings							
Floor area - permanent offices (m²)	ND	ND	ND	11,902	12,354	GRI CRE3 Vision2020	This has been calculated by dividing the total direct and indirect greenhouse gas emissions from permanent offices for a given year by the floor area of permanent offices. Note that the floor area of permanent offices is presented as an average figure for the year.
Building greenhouse gas emissions intensity - permanent offices (kgCO <sub>2</sub> e/m²/year)	ND	ND	ND	124.9	145.6		
Greenhouse gas emissions intensity from new construction and redevelopment activity							
Revenue (£million)	656.1	615.3	728.8	1,039.0	1,364.3	GRI CRE4	This has been calculated by dividing the greenhouse gas emissions for scopes 1, 2 and 3 (excluding indirect fugitive emissions) by the Berkeley Group's revenue in £million. Note that the sale of land (i.e. revenue that has not resulted from new construction and redevelopment activity) has been excluded from the revenue values used within the intensity calculations.
Greenhouse gas emissions intensity (tCO <sub>2</sub> e/£million/year)	12.5	11.5	19.1	19.7	16.1		
Total number of people - site operatives	ND	ND	5,259	7,207	8,025	GRI CRE4 Vision2020	This has been calculated by dividing the greenhouse gas emissions for scopes 1, 2 and 3 (excluding emissions from permanent offices, sales and marketing suites and show homes, business travel, air travel and indirect fugitive emissions) by the number of site operatives. Note that the number of site operatives is presented as an average figure for the year.
Greenhouse gas emissions intensity - (tCO <sub>2</sub> e/site operative/year)	ND	ND	2.1	2.4	2.2		
Operational energy consumption							
Direct energy consumption							
Direct energy consumption (kWh)						GRI EN3	Direct energy consumption relates to directly consumed fuels that the Berkeley Group has control or influence over: natural gas; directly purchased gas oil and LPG for site use; and diesel and petrol relating to business travel by company car and cash allowance recipients.  Energy consumption data for permanent offices, sites, sales and marketing suites and show homes has been collected on a monthly basis through meter readings (natural gas) and delivery information such as invoices (gas oil and LPG).  Raw data was collected in cubic metres (m³), hundreds of cubic feet (ft³), litres (l) or kilogrammes (kg) of fuel and converted to kWh. This has then been converted to gigajoules (GJ) using the GRI conversion factor 0.0036.  2013 data coverage is as follows:  - Permanent offices: direct energy consumed at 100% of Berkeley Group permanent offices reported.  - Sites: direct energy consumed at 100% of Berkeley Group sites reported.  - Sales and marketing suites and show homes: this has been reported for 10 marketing suites and 20 show homes. Data coverage as a percentage has not been assessed.
Total direct energy consumption (kWh)	ND	11,049,817	11,088,875	12,444,360	12,047,284		
Total direct energy consumption broken down by activity (kWh)							
- Permanent Offices	ND	5,352,529	830,287	819,105	1,049,843		
- Sites	ND		6,900,145	6,810,771	5,725,047		
- Sales and Marketing Suites and Show Homes	ND		99,559	443,033	803,499		
- Business Travel <sup>a</sup>	ND	5,697,288	3,258,883	4,371,452	4,468,895		
Total direct energy consumption broken down by primary energy source (kWh)							
- Natural Gas	ND	1,026,660	950,507	1,361,678	2,286,647		
- Gas Oil	ND	4,319,735	6,761,201	6,598,175	5,222,068		
- Diesel	ND	4,074,879	1,903,617	2,542,897	2,703,326		
- Petrol	ND	1,622,409	1,355,267	1,828,555	1,765,569		
- LPG	ND	6,134	118,284	113,056	69,674		

	2009	2010	2011	2012	2013	Indicator	Further Information
<i>Direct energy consumption (GJ)</i>							Note that total consumption data for 2011 and 2012 has been restated as errors noted in historical data reporting have been corrected. Consumption for these periods is also newly broken down by activity.  a) 2013 Business Travel  Emissions arising from company car and cash allowance recipients’ business travel in gCO <sub>2</sub> have been divided by 0.2471 for petrol and 0.2591 for diesel for conversion to kWh (2012 Defra/DECC’s GHG Conversion Factors). The percentage of emissions attributable to petrol and diesel vehicles is based on a ratio established in previous years: 46% diesel/54% petrol for vehicles used by cash allowance recipients and 72% diesel/28% petrol for company vehicles. Motorbikes were assumed to be petrol fuelled.
Total direct energy consumption (GJ)	ND	39,779	39,920	44,800	43,370		
<i>Total direct energy consumption broken down by activity (GJ)</i>							
- Permanent Offices	ND	19,269	2,989	2,949	3,779		
- Sites	ND		24,841	24,519	20,610		
- Sales and Marketing Suites and Show Homes	ND		358	1,595	2,893		
- Business Travel	ND	20,510	11,732	15,737	16,088		
<i>Total direct energy consumption broken down by primary energy source (GJ)</i>							
- Natural Gas	ND	3,696	3,422	4,902	8,232		
- Gas Oil	ND	15,551	24,340	23,753	18,799		
- Diesel	ND	14,670	6,853	9,154	9,732		
- Petrol	ND	5,841	4,879	6,583	6,356		
- LPG	ND	22	426	407	251		
Indirect energy consumption through purchased electricity							
<i>Indirect energy consumption through purchased electricity (kWh)</i>						GRI EN4	Data on indirect energy consumption through purchased electricity has been collected on a monthly basis through meter readings and billing information for permanent offices, sites, sales and marketing suites and show homes. Raw data was collected in kilowatt-hours (kWh) and converted to gigajoules (GJ) using the GRI conversion factor 0.0036.  2013 data coverage is as follows:  - Permanent offices: indirect energy consumed through purchased electricity reported for 94% of permanent offices. One permanent office has not reported indirect energy consumption through purchased electricity as it is contained within a serviced office with no sub-metering on electricity supplies. No assumptions have been made to complete the data for this office.  - Sites: indirect energy consumed through purchased electricity reported for 100% of Berkeley Group sites.  - Sales and marketing suites and show homes: indirect energy consumed through purchased electricity reported for 92% of sales and marketing suites and 89% of developments with show homes. No assumptions have been made to complete the data set.  a) Breakdown of electricity by source  The breakdown of purchased electricity by source was calculated using figures from the <a href="#">International Energy Agency (IEA) UK Electricity Statistics</a> :
Total indirect energy consumption through purchased electricity (kWh)	8,718,521	7,277,300	11,057,629	13,819,463	18,645,450		
<i>Total indirect energy consumption through purchased electricity broken down by activity (kWh)</i>							
- Permanent Offices	8,718,521	7,277,300	2,417,723	2,204,790	2,645,920		
- Sites			7,681,149	10,302,457	14,294,110		
- Sales and Marketing Suites and Show Homes			958,757	1,312,216	1,705,421		
<i>Total indirect energy consumption through purchased electricity broken down by source (kWh)<sup>a</sup></i>							
Non-renewable energy type:							
- Combustible fuels (oil, gas, coal and peat)	6,800,446	5,676,294	8,846,103	10,483,997	13,692,158		
- Nuclear	1,394,963	1,164,368	1,437,492	2,541,952	3,429,554		
Renewable energy type:							
- Hydro	174,370	145,546	221,153	329,180	444,068		
- Energy from waste and biofuels	261,556	218,319	331,729	121,473	462,780		
- Geothermal, wind and solar PV	87,185	72,773	221,153	342,999	616,891		

	2009	2010	2011	2012	2013	Indicator	Further Information
Indirect energy consumption through purchased electricity (GJ)							<ul style="list-style-type: none"><li>- Combustible fuels (oil, gas, coal and peat): 73.4%</li><li>- Nuclear: 18.4%</li><li>- Hydro: 2.4%</li><li>- Energy from waste and biofuels: 2.5%</li><li>- Geothermal, wind and solar PV: 3.3%</li></ul>
Total indirect energy consumption through purchased electricity (GJ)	31,387	26,198	39,807	49,750	67,124		
Total indirect energy consumption through purchased electricity broken down by activity (GJ)							
- Permanent Offices	31,387	26,198	8,704	7,937	9,525		
- Sites			27,652	37,089	51,459		
- Sales and Marketing Suites and Show Homes			3,452	4,724	6,140		
Total indirect energy consumption through purchased electricity broken down by source (GJ) <sup>a</sup>							Possible energy losses through grid and efficiency losses, and variations in source due to tariff structure were not taken into account. Variations in source for electricity consumed in Hong Kong and Singapore (accounting for 0.3% of the total electricity consumed) were also not taken into account with the UK Electricity Statistics applied to this consumption.
Non-renewable energy type:							
- Combustible fuels (oil, gas, coal and peat)	24,482	20,434	31,846	37,742	49,292		
- Nuclear	5,022	4,192	5,175	9,151	12,346		
Renewable energy type:							
- Hydro	628	524	796	1,185	1,599		
- Energy from waste and biofuels	942	786	1,194	437	1,666		
- Geothermal, wind and solar PV	314	262	796	1,235	2,221		
Operational energy consumption – intensity metric							
Building energy intensity							
Floor area - permanent offices (m²)	ND	ND	ND	11,902	12,354	GRI CRE1	This has been calculated by dividing the total energy consumption in permanent offices (both direct consumption and indirect energy consumption through purchased electricity) for a given year by the floor area of permanent offices. Note that the floor area of permanent offices is presented as an average figure for the year.
Building energy intensity - permanent offices (kWh/m²)	ND	ND	ND	254.1	299.2		



	2009	2010	2011	2012	2013	Indicator	Further Information
Operational water consumption							
Total water withdrawn (m³/year)	67,888	74,481	113,730	143,138	190,991	GRI EN8	100% of the reported water consumption each year has been withdrawn from municipal supplies of the United Kingdom.
Total water withdrawn broken down by activity (m³/year)							Water consumption data has been collected on a monthly basis through meter readings and billing information. In some instances (as detailed below) estimations have been used where accurate meter readings were unavailable.
- Permanent Offices	67,888	74,481	4,685	4,484	4,212		
- Sites			106,606	134,154	179,195		
- Sales and Marketing Suites and Show Homes			2,439	4,500	7,584		
2013 data coverage is as follows:							
- Permanent offices: water consumed at 81% of offices reported. Those offices that have not reported water consumption are those contained within serviced offices whereby water consumption is not sub-metered. No assumptions have been made to complete the data set.							
- Sites: water consumed at 96% of sites reported. Metered consumption was not available on some of these sites for the duration of the year (e.g. due to meter failures or metering constraints due to the nature of works, such as demolition). Therefore 7% of the reported site consumption is based on site estimations. Water consumption (either estimated or metered) was not provided for 4% of sites across the Group and no assumptions have been made to complete the data set. Those sites that have not reported water consumption during 2013 are generally those that started demolition in the latter months of the year and these sites will be metered moving forwards. Note that site figures include water consumed by contractors on our sites (including sites where the Berkeley Group is the client only).							
- Sales and marketing suites and show homes: water consumption reported for 79% of sales and marketing suites and 86% of developments with show homes. No assumptions have been made to complete the data set.							
Note that total consumption data for 2011 and 2012 has been restated as errors noted in historical data reporting have been corrected. Consumption for these periods is also newly broken down by activity.							
Operational water consumption – intensity metrics							
Building water intensity							
Number of people - permanent office employees	ND	ND	ND	612	884	GRI CRE2 Vision2020	This has been calculated by dividing the total water consumption in permanent offices for a given year by the number of permanent office employees. Note that the number of permanent office employees is presented as an average figure for the year.
Building water intensity - permanent offices (m³/office employee/year)	ND	ND	ND	7.3	4.8		
Site water intensity							
Number of people - site operatives	ND	ND	5,259	7,207	8,025	Vision2020	This has been calculated by dividing the total water consumption on sites for a given year by the number of site operatives. Note that the number of site operatives is presented as an average figure for the year.
Water intensity - sites (m³/site operative/year)	ND	ND	20.3	18.6	22.3		

	2009	2010	2011	2012	2013	Indicator	Further Information
Demolition, excavation and construction waste							
Total waste produced (tonnes)	41,575	40,240	805,921	946,520	1,399,810	GRI EN22	Demolition, excavation and construction waste data from waste transfer notes is recorded by all sites in operation across the Berkeley Group, including those sites where the Group is not the Principal Contractor. In 2013, data has been gathered in cubic metres (m³) and converted to tonnes using conversion factors supplied by the <a href="#">Environment Agency</a> for each particular waste stream.  Where incomplete data or data input errors (e.g. incorrect dates) have been provided by sites within the waste data collection tools, these particular rows of data have been omitted from waste analysis.  Of the wastes removed from site in 2013, 0.08% was in a liquid form with the remainder being solid wastes.  Hazardous waste treatment facilities (e.g. for gas oil wastes) and recycling facilities (e.g. for canteen oil wastes) are key disposal routes for liquids. However, to further take into account the disposal of liquid wastes originating from our sites, sewage treatment works have been added as a disposal route in 2013. Data for 2012 has been restated to include this end destination type and to correct previously reported errors.  Data on the volumes of waste (e.g. soils, concrete crush etc.) that are temporarily stored on-site prior to re-use is not currently captured and therefore is not presented in the figures.
Total waste produced broken down by waste type (tonnes)							
- Non-hazardous waste	41,473 (99.8%)	36,542 (90.8%)	804,443 (99.8%)	942,751 (99.6%)	1,397,722 (99.9%)		
- Hazardous waste	102 (0.2%)	3,698 (9.2%)	1,478 (0.2%)	3,769 (0.4%)	2,088 (0.1%)		
Total waste produced broken down by disposal method (tonnes)							
- Re-use (off-site)	-	145 (0.4%)	345,606 (42.9%)	459,952 (48.6%)	860,191 (61.5%)		
- Re-use (on-site)	-	-	-	8,879 (0.9%)	65,534 (4.7%)		
- Recycling facility	3,806 (9.2%)	4,762 (11.8%)	119,601 (14.8%)	126,354 (13.3%)	105,937 (7.6%)		
- Materials Recovery Facility (MRF)	37,326 (89.8%)	31,120 (77.3%)	100,872 (12.5%)	131,159 (13.9%)	108,708 (7.8%)		
- Composting facility	-	110 (0.3%)	13 (0.0%)	-	86 (0.0%)		
- Energy recovery (via incineration)	-	-	-	53 (0.0%)	-		
- Incineration (mass burn)	-	-	-	-	-		
- Landfill (beneficial use)	-	-	101,171 (12.6%)	165,916 (17.5%)	162,606 (11.6%)		
- Landfill (non-hazardous or inert)	341 (0.8%)	405 (1.0%)	137,180 (17.0%)	50,214 (5.3%)	94,432 (6.7%)		
- Landfill (hazardous)	-	-	616 (0.1%)	2,061 (0.2%)	1,246 (0.1%)		
- Hazardous waste treatment facility	102 (0.2%)	3,698 (9.2%)	862 (0.1%)	1,708 (0.2%)	842 (0.1%)		
- Sewage treatment works	-	-	-	224 (0.0%)	228 (0.0%)		
- Deep well injection	-	-	-	-			
- On-site storage	ND	ND	ND	ND	ND		

	2009	2010	2011	2012	2013	Indicator	Further Information
Waste re-use and recycling rate							
Percentage of waste re-used or recycled	ND	ND	82.1%	92.5%	93.1%	Vision2020	A figure of 96.6% has been used in 2013 to determine the amount of waste recycled via Materials Recovery Facilities (MRFs). Note that this recycling figure is adjusted annually following a review of the recycling rates for a sample of MRFs used by the Group. Recycling figures of 92.2% and 91.0% have been used for our 2012 and 2011 data respectively.
Waste intensity metric							
Number of people - site operatives	ND	ND	5,259	7,207	8,025	N/A	This has been calculated by dividing the total weight of demolition, excavation and construction waste for a given year by the number of site operatives. Note that the number of site operatives is presented as an average figure for the year.
Waste intensity - sites (tonnes/site operative/year)	ND	ND	153.2	131.3	174.4		
Pollution							
Total number of significant spills	ND	ND	7	2	1	GRI EN23	This covers all sites where the Berkeley Group is the Principal Contractor.
Total number of significant spills (litres)	ND	ND	1,080	2,540	20		A significant spill is classified as a spill of 5 litres or more that requires the use of a site spill kit and is reported to the Berkeley Group sustainability or health and safety teams. The reported spill did not result in a pollution incident.