# **Balfour Beatty**

# BUILDING A LONG-TERM FUTURE

Sustainability summary report 2009



**Profitable markets** 



**Healthy communities** 



**Environmental limits** 







# About this report

In 2009 we set out our sustainability vision and our roadmap for delivering it. The vision sets goals for all our businesses in three areas — profitable markets, healthy communities and environmental limits – and these provide the structure for this year's report.

This is the summary version of our ninth sustainability report For the full report, please visit: **sustainabilityreport09.balfourbeatty.com** 



# **Managing sustainability**

As we grow the scale and breadth of our activities, we need increasingly robust systems, processes and policies to help us manage our sustainability performance. This section of our report gives an overview of our Group-level progress in the management of sustainability issues.

# **Profitable markets**

This section of our report explores how our approach to sustainability can generate profitable business growth.

# In 2009

We evolved our strategy to meet customers' desire to work with integrated suppliers.

Our order book grew to £14.1bn.

Our acquisition of Parsons Brinckerhoff extended our influence on energy issues and enhanced our sustainability capabilities.

# **Healthy communities**

In this section we examine our relationships with our people, and with those who live and work on or around our infrastructure projects and developments.

# In 2009

We embedded our Zero Harm safety vision across the Group.

We invested £30m in employee training.

We launched our values-based Code of Conduct Group-wide.

We set up a charitable trust to support social initiatives.

# **Environmental limits**

We aim to meet our stakeholders' needs within acceptable environmental limits. This section assesses our progress in this area.

# In 2009

We developed Group-wide performance targets for the first time on a range of issues.

We extended the scope of our reporting to cover further businesses in the US and Dubai.

85% of the waste we generated was recycled, recovered or re-used.

We increased the proportion of our timber by value from certified managed sources from 69% to 89%

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# What we do

We work on major infrastructure assets across their entire lifecycle: from conception, funding, programme management and design to construction, systems integration, operation and maintenance.

# **Business strategy**

- We have built a portfolio of high-quality, market-leading businesses operating in professional services, construction services, support services and infrastructure investments.
- Together, they are the four components of a full-service infrastructure group and can be brought together in any combination to provide an integrated capability for customers.
- Around half our revenue now comes from outside the UK, and we are well-diversified across geographies and market sectors.
- Our strategy for long-term growth is to grow our four business segments, as well as capitalising on our unique integrated capability. At the same time, we will aim to share knowledge across the Group, integrate our capabilities even more effectively, leverage our scale and show leadership in our values and behaviour.
- We have a business with the capability and strength to adapt rapidly to market conditions. This flexibility is itself a further competitive advantage, and will enable us to participate in the most promising opportunities.

# Leading our industry

Balfour Beatty celebrated its centenary in 2009. While we are proud to have been in business for such a long time, what do we, as a company and as a leadership team, need to consider and put in place today to ensure that Balfour Beatty continues to thrive and has a sustainable, long-term future?

True corporate sustainability means being confident of survival, and success, over the long term.

To achieve this, we need to have the financial strength to withstand the market volatility that we inevitably face from time to time. In spite of economic uncertainty. I am pleased to say that our strategy is robust. and that we have continued to perform well.

Furthermore, we need the right strategy. Our goal is to be a world-leading provider of services to infrastructure owners. The acquisition of Parsons Brinckerhoff means we have now created an integrated portfolio of substantial businesses operating across the infrastructure lifecycle. Together with the diversity of our geographic and end-user markets, we have an excellent platform for future, long-term success.

As society and its expectations change, we are focused on setting the industry standard for sustainability and meeting all our responsibilities as a market-leading business. Undoubtedly, the leaders in our industry in the future will be those who put key issues such as safety, the environment and ethical behaviour at the core of their strategy.

We believe that our focus on the right types of sustainability initiatives. gives us access to new markets in the low-carbon and resource-efficient economy of the future, which will drive business growth.

Our sustainability vision, and our roadmap to achieve it, commits us to achieve minimum standards on a range of issues in three areas profitable markets, healthy communities and environmental limits – by 2020, with a checkpoint at 2012. These three areas do not compete; they represent shared outcomes that closely align with one another.

Delivering on these commitments is good business: good for our customers, good for employees; good for business partners; good for our supply chain; and good for society at large.

We have changed our sustainability reporting this year. Our report encompasses the wider sustainability agenda and is aligned to our 2020 vision and roadmap to allow clearer reporting of progress going forward

We have come a long way in a short time and set ourselves ambitious goals which we will need to deliver. As in many other areas, if we can demonstrate that we have the right processes in place to ensure the highest standards throughout Balfour Beatty, we will have a clear, competitive advantage.

This is an exciting time for Balfour Beatty. We have great people, excellent long-term prospects and a robust business model.

We know there are significant challenges ahead. The scale and breadth of our activities gives us a real opportunity to make a strong and positive social, environmental and economic impact.



**lan Tyler** Chief Executive May 2010



# 2009 in numbers

Revenue <sup>1</sup> £10.3bn	Pre-tax profit <sup>2</sup> £267 m	Order book £14.1bn	Total employees 50,000	Average net cash £283 m
+9%	+7%	+10%	+25%	+18%

Including joint ventures and associates

# Non-financial key performance indicators

	2008	2009	Trend
Absence rate (%)	2.30	2.12	•
Graduate recruitment	311	454	•
Fatal accidents (employees and sub-contractors)	8	3	•
Accident frequency rate (employees and sub-contractors)	0.20	0.17	•
Carbon emissions (tonnes CO <sub>2</sub> )	324,000	383,400	•
Carbon emissions (tonnes CO <sub>2</sub> /£m revenue)	32.8	34.8	•
Waste to landfill (tonnes)	833,400	878,300	•
Waste to landfill (tonnes/£m revenue)	84	80	•
Total waste recycled/recovered (%)	77.0	85.4	•
Water use (m³/£m revenue)	170.4	190.9	•
Sustainably sourced timber (% total timber spend by value)	76.6	89.1	•

We have established a new HR reporting system in 2010 and intend to report trends in the future Full five-year trend data is available in our online report at sustainabilityreport09.balfourbeatty.com

Before exceptional items and amortisation of intangible assets.

For further information see annualreport09.balfourbeatty.com

"It was encouraging to see Balfour Beatty seek and respond to external feedback on developing its sustainability vision and roadmap during 2009."

lan Gearing, Head of Corporate Responsibility, National Grid



"We appreciate the leadership from Group in setting out an overarching sustainability strategy."
lan Rylatt, Managing Director, Balfour Beatty Capital

# **Managing sustainability**

# Our sustainability vision

We are committed to responding to the sustainability challenge. By working together to develop and implement a sustainability strategy covering our global operations until 2020, we are making sustainability a collective responsibility.

### Where we are now

We aim to be a leader in sustainability, playing a significant role in helping our customers to make sustainable choices. We also recognise that resource depletion, the impacts of climate change and the expectations of our customers, investors, employees and society will continue to intensify. So, in 2009, we critically evaluated our sustainability vision and roadmap, outlining where we want to be in 2020. We also developed a user guide to ensure the strategy is consistently implemented in all our businesses.

The roadmap aims to ensure that by 2020, wherever in the world we are operating, sustainability will be embedded into everything we do. Sustainability is a collective responsibility and the entire Group is focused on this challenge.

The roadmap introduces a comprehensive mix of management and performance-based targets across the Group for the first time. It addresses 31 key issues in 10 focus areas, setting three critical milestones for each:

- Minimum expectations by 2012 mandatory first steps for all our businesses
- Excellence for 2012 the goal for those pursuing best-practice standards
- The aspirational goal for 2020 providing clear direction for businesses' thinking and practices.

A renewed focus on sustainability, facilitated by the vision, positions us better to manage non-financial risk, to exploit opportunities for increasing efficiency and entering new markets, and to enhance our reputation as a leader in infrastructure development and management.

The vision and roadmap have now been launched in all businesses, except Parsons Brinckerhoff (PB), through roadshows, presentations and Q&A sessions. We also held a launch event for key external stakeholders including the media. Between November 2009 and February 2010, we held 21 sessions with management teams in the UK, US, Italy, Germany, Dubai and Hong Kong. Feedback from these sessions has been encouraging. Although our businesses see the goals as challenging, they see sustainability as a way of differentiating themselves in the marketplace to win new work. The vision and roadmap will be launched later in 2010 in PB.

# What's next?

Our operating companies must now create their action plans for achieving the mandatory milestones for 2012. Each must determine how the targets will apply to their own business. Action plans will be evaluated by the sustainability working group, which will provide feedback and share plans across the business. It will also ensure consistency with journey plans submitted for our Zero Harm safety vision.

The roadmap itself will be reviewed and updated over time introducing new milestones between 2012 and 2020. What we identify as excellence in 2012 could well become the minimum expectation for all operating companies worldwide in 2015 as we continue our journey towards becoming a truly sustainable business by 2020.

### **2020** vision

This graphic illustrates the three broad areas of management to achieve the 2020 sustainability vision, the main issues relating to these management areas, and the behaviours we want to nurture to achieve this vision. Read our vision in full at sustainabilityreport09.balfourbeatty.com



# Focusing on what matters

One of our key goals for this year's reporting is to give more emphasis to the issues with greatest potential to affect our business — specifically, those that have greatest potential to help or harm our business, or those that matter most to stakeholders.

### What matters most?

Members of the executive team and other senior managers took part in workshops to help prioritise the issues we should give most weight to in this year's report. A list of issues, drawn from previous reports and our sustainability vision were filtered in two workshops: the first explored the significance of issues to stakeholders, with the second examining each issue's potential to affect our ability to deliver our strategic ambitions.

The stakeholders we considered were investors, employees, customers, government, NGOs, local communities, media and suppliers. Participants assessed stakeholders' interest in how we manage each issue, enabling us to filter the issues by their relevance to stakeholders. Participants also considered an issue's potential to help or harm the business, filtering them according to the perceived depth of impact, the likelihood of impact, and the timeframe of the impact.

These workshops highlighted nine topics as particularly material for our business, as shown in the table below.

We hope this helps make our communications more focused and transparent on the issues of concern to our business and its stakeholders.

# What's included in our reporting?

Our approach and management systems cover our global activities and we report incidents and penalties globally.

We collate safety data for all our wholly-owned activities and the joint ventures where we have management control. Sub-contractor safety performance is included for all activities apart from the US, where this is not common practice.

We report environmental data for all wholly-owned UK and European operating companies and the joint ventures where we have management control. This year, our US construction and communities businesses and our two joint venture businesses in Dubai have progressed towards reporting environmental performance to the same standards. We report data in both absolute (eg tonnes of waste) and normalised against revenue (eg tonnes of waste to landfill/£m revenue).

We report on employee data for all our wholly-owned businesses worldwide.

Where possible we refer to the people that work directly for Balfour Beatty or our joint venture businesses as employees throughout the report. Our HR data is reported in terms of "staff" (people who are primarily office-based) and "operatives" (people who are primarily site-based).

In October 2009, Balfour Beatty acquired Parsons Brinckerhoff (PB). This report includes PB safety data from time of acquisition, and HR data for the full year.

# Issue hierarchy\*

issue fileratory*		
Focus issues These issues form the majority of this summary report.	Additional issues considered Fuller coverage of these issues is available online.	Issues not explicitly covered in sustainability reporting
- Leadership and governance	- Supplier relationships	- Senior level remuneration
<ul> <li>Ethics and values</li> </ul>	<ul> <li>Employee engagement</li> </ul>	<ul> <li>Innovation (though this is evidenced throughout)</li> </ul>
- Meeting customer needs	<ul> <li>Community engagement</li> </ul>	
<ul> <li>Influencing for sustainability</li> </ul>	<ul> <li>Community investment</li> </ul>	
- Safety	<ul> <li>Protecting ecological resources</li> </ul>	
<ul> <li>Talent and training</li> </ul>	- Pensions	
– Energy and carbon	<ul> <li>Materials lifecycle management</li> </ul>	
-Waste	<ul><li>Water management</li></ul>	
- Sourcing materials	<ul><li>Employee health and well-being</li><li>Incentives for non-financial performance</li></ul>	
	<ul><li>Diversity</li></ul>	
	<ul> <li>Tumover and absence</li> </ul>	
	<ul><li>Local employment</li></ul>	
	- Migrant workers	

\*Output from materiality workshop 02.02.10

### **Code of Conduct**

Our Code of Conduct reinforces our values, sets out the behaviour we expect from employees and explains how to consider: "What's the right thing to do?"



"I want our stakeholders to recognise that the Balfour **Beatty brand is synonymous** with sustainability and that it is the collective responsibility of all of us that work for the Company to deliver this." Mike Peasland, Group Managing

Director and chairman of the

sustainability working group



"By applying sustainability thinking to 800 projects a year, Mansell can make a real positive difference to our communities across the UK."

Susan Gilmore, Affordable Housing Manager, Mansell

# **Managing sustainability**

# **Ethics and values**

We operate in diverse markets and need to ensure that our employees make decisions that prevent us from conducting business unethically or being exposed to serious risks. Our Group values, and our new Code of Conduct, aim to help them make the right decisions.

### **Redefining our values**

We have recognised not only that markets and customer needs are changing, but that further growth will potentially stretch the boundaries of our operating companies, their management teams and individuals. Our common set of values, representing what we are as a Group and what we want to be recognised for, create unity across our business. Common values offer clear business benefits to us and support us through the challenges of future growth.

We have identified four Group values – integrity, teamwork, excellence and respect – to inform employee behaviour across our business. Customers and other stakeholders recognised these as already present in our Company culture. What is new is our plan to embed them further through a structured programme.

# **Our new Code of Conduct**

Our new Code of Conduct, launched to all employees in 2009, stems directly from our values. It underlines our ethics and the responsibility we all have to protect the Company from risk, both legal and reputational. It also offers our employees principles on how our values can be translated into everyday actions. During 2010, employees will complete online training on the importance of ethical behaviour.

Balfour Beatty was one of several companies subject to an industry-wide investigation by the Office of Fair Trading into tender activities, and in 2009 we were fined £5.2m for breaches of competition law. By then we had already carried out a thorough and detailed audit of all our businesses and introduced a rigorous training programme to ensure we comply fully with all aspects of competition law.

# Introducing the ethics helpline

In 2009, we supplemented the existing internal channels for employees to raise concerns about unethical conduct. Employees can now use a confidential third-party service accessible by phone or online. In 2009, 42 whistleblowing cases were reported (2008: 28). We believe this increase reflects growing awareness of our whistleblowing channels and high ethical standards. All reported cases were thoroughly investigated: remedial and/or disciplinary action was taken where appropriate. The new ethics helpline may lead to a further increase this year.

> Having a common set of Group values offers clear business benefits and will support the challenges of future growth.



# Leadership and governance

As a leader in many of our markets, we aim to behave like an organisation of real substance and stature

Our goal is to set the standard in areas such as ethics, safety and environmental management, and in relationships with our customers, our supply chain and our people. This will help us to:

- Be at the forefront of sustainability in our industry
- Help customers to meet or exceed their own sustainability aspirations
- Enhance our reputation as a leader in infrastructure development and management.

## Governance

The Balfour Beatty Board sets policy and takes responsibility for non-financial performance, including sustainability issues. The Business Practices Committee, comprising non-executive Directors chaired by Mike Donovan, reviews these activities and provides guidance on future activity.

In October 2009, we launched a sustainability vision, roadmap and Group-wide targets (see p4). The vision was underpinned by wide consultation with customers, investors and NGOs. It is "owned" by the sustainability working group, consisting of senior managers from our businesses worldwide, which helps to strengthen collaborative working across the Group.

### **Dow Jones Sustainability Index**

In the Dow Jones Sustainability Index, our 2009 score of 67% (2008: 65%) reflects improving performance across economic, environmental and social criteria and compares well with the industry average of 48%.

While risk management is a key driver for our sustainability vision, non-financial risk is also reflected in our Group-level risk management process. The Board is responsible for ensuring that risks are identified and appropriately managed across the Group. Responsibility for risk identification, analysis, evaluation, mitigation, reporting and monitoring rests with operating company management.

### **Developing our leaders**

To ensure that our leaders have the right skills and attributes, we are developing a senior leadership framework. This sets out the qualities that characterise a successful leader in Balfour Beatty and highlights the behavioural attributes and skills we need.

### Independent assessment of anti-corruption measures

In early 2005 we identified payment irregularities relating to a joint venture contract in Egypt which had been completed in 2001 by a Balfour Beatty business that was discontinued over seven years ago. The matter was reported voluntarily to the Serious Fraud Office (SFO), and after settling this case in 2008, we appointed the Global Infrastructure Anti-Corruption Centre (GIACC) to report on our anti-corruption measures.

During 2009, GIACC undertook a detailed review of all operating companies, other than Parsons Brinckerhoff, which will be assessed in 2010.

The main conclusions of its 2009 report were:

- -There is a strong ethical culture from the top of Balfour Beatty.
- There is a high level of awareness of the risks of corruption, a belief and desire that Balfour Beatty should be run in all respects as an ethical company and in compliance with the law, and a commitment to ensuring, as far as is reasonable, that no corruption takes place in relation to our business.
- Documentation and procedures were well-written and in compliance with international best practice. Some areas for improvement in such procedures, or their implementation, were identified and have been or are being addressed.
- Major steps have been taken in 2009 to enhance our ethical compliance programmes, including:
- Launch of the values and new Code of Conduct
- Publication of Group-wide minimum standards for commercial
- Enhanced ethical training programme and new helpline
- Compliance function established at Group Head Office, with a compliance officer in each operating company.
- The process used to approve the appointment of agents and the payment of commissions is robust and rigorously operated.
- While due diligence is undertaken in respect of joint venture partners and the supply chain, this could be enhanced and more formally documented.
- Certain specific weaknesses in the programme and some differences in the level of implementation of these policies and processes across the Group were identified. These will be addressed during 2010.

The Board receives regular reports on our anti-corruption programme and we will provide further updates in future sustainability reports.



**Engagement in action on the M25** 

Despite the very tight programme to widen the motorway, the project team has liaised consistently with residents and has been able to amend original plans in some locations along the route to provide environmental mitigation bunds rather than exposed sheet-piled walls. These bunds will help reduce the impact of the widened motorway to leave a lasting benefit in the local community.

**Managing sustainability** 

# Stakeholder engagement

We believe that engaging with stakeholders systematically and pro-actively is an essential part of being a responsible company. Here are some of the ways in which we have been maintaining dialogue with them in 2009.

We engage with	Why we engage	How we engage	What's next?
Customers	We seek long-term relationships, so we need regular feedback and two-way communication. Our Code of Conduct commits us to communicate with our customers truthfully, clearly and regularly.	Running regular attitude and opinion surveys, involving them in our Zero Harm and sustainability visions, seeking their perspectives to help define our Group values.	We aim to involve customers in helping us to meet our 2012 sustainability expectations. We have launched an alliance exchange programme in the UK, are developing a toolkit to help employees communicate effectively with customers.
Investors	We want to provide improving returns over the long term and give them the information they need to make well-informed investment decisions.	Running regular roadshows and one-to-one meetings. In 2009, senior executives held over 140 meetings with institutional investors. All our financial presentations are webcast.	Increase communication to explain our results and new business segmentation. We recently appointed an independent consultant to advise on our relationships with institutional investors in the UK and internationally.
Employees	Giving our employees a voice is central to creating a unified culture where they feel motivated and understand where we are heading as a Group.	Publications, briefing groups, consultative meetings, representative bodies, training programmes, working groups, conferences and surveys in most of our businesses.  Our Zero Harm safety vision has led to more employee roadshows.	New publication to communicate our strategic direction; workshops to roll-out our values programme; sustainability course to help embed the 2020 vision; promotion of greater knowledge-sharing across the Group.
Government/Regulators	Over half our work is for governments. We need to understand the issues that may impact our business, particularly those that affect our customers and local communities.	Active relationships with public sector customers and regulators to ensure we meet their requirements. Senior executives attend conferences to discuss governmental issues.	Initiate new public affairs programme to engage with key government officials, and expand our public affairs activity in the US.
Local communities	We aim to make a lasting positive impact on the communities in which we operate. We also want to deliver better projects and services to help us secure future work.	Consultation through leaflet drops, project websites, community discussions and exhibitions. Most larger sites have community relations officers. National and local initiatives targeted at improving the life prospects of young people.	Constantly improve the planning and implementation of community liaison work, build on the momentum of charitable giving to increase the involvement of our international operations.
Suppliers	We want to create long-term partnerships based on shared values and behaviour as well as product quality and price. Engagement helps us work together to understand mutual needs and to exceed customer expectations.	During 2009, we involved them in our Zero Harm and sustainability visions. Many of our operating companies organise meet the supplier days, fostering a collaborative working culture.	Our UK operating companies are working with suppliers on industry-leading procurement and supply chain management. We will continue working to embed Zero Harm and sustainability in our supply chain.
Industry groups	We want to play our part in helping to drive sector-based approaches to more sustainable outcomes, as we can achieve more in combination with others.	We promote best practice in safety and environment through our work with the CBI and sector-based organisations such as BuildSafeUAE and the UK Contractors' Group (UKCG).	Our operating companies are reviewing their interactions with trade associations and other companies to determine the best methods for influencing on sustainability.

"Balfour Beatty is to be commended for continuing its stakeholder panel for a second year. The panel welcomes the opportunity to provide feedback on the Company's sustainability strategy and reporting practices."

Dean Kerwick-Chrisp, Highways Agency and chairperson of the stakeholder panel



# Our stakeholder panel

'We commend Balfour Beatty's serious commitment to sustainability and its level of transparency."

# Our stakeholder panel

We introduced a stakeholder panel last year to review our report and provide an independent opinion of our performance and provide recommendations on where we could improve (see progress table below).

Following the success of our first stakeholder panel last year, we asked an expanded panel of key stakeholders to give us an independent opinion of our 2009 sustainability report. Seven experienced sustainability practitioners met in March and again in April 2010 to review our report. The panel members were:

- Dean Kerwick-Chrisp, Highways Agency and panel chair
- Ian Gearing, National Grid
- Kate Broome, Network Rail
- Dave Farebrother, Land Securities Tim Goodman, Hermes
- Chad Harrell, UK Green Building Council
- Andy Spencer, Cemex

URS provided feedback to the panel on the level of data integrity and claims made in the report through discussions with senior management at Group Head Office and reviews of data at both a corporate, operating company and site level.

### Extract from 2009 stakeholder panel statement

'We commend Balfour Beatty's serious commitment to sustainability and its level of transparency. The panel feels that the sustainability vision and roadmap (which includes 2020 aspirations and plans for implementation) are first-class. Real effort has been made to roll-out the vision and roadmap in the short period following its launch in 2009. We look forward to an update next year on how far this roll-out has progressed throughout the organisation as a whole.

Delivering sustainability is clearly important to Balfour Beatty and the leadership and commitment behind this is apparent.

However the panel would like to see further evidence of how the vision is being embedded within the company's culture from top to bottom. We would like to see more evidence of engagement and capacity building, in particular across the company's senior business leaders. We also believe that further opportunities exist to integrate sustainability into job descriptions, personal accountabilities, objectives and remuneration. Finally, we would encourage the development of a feedback mechanism to help monitor progress on employee understanding of sustainability and implementation of the roadmap

For more on our stakeholder panel, the full opinion statement for this year's report and the URS assurance process, see our online sustainability report at sustainabilityreport09.balfourbeatty.com

2008 stakeholder panel recommendation	2009 response
Publish the sustainability roadmap	Completed. 2020 sustainability vision and roadmap published in full
Provide more information on how executive Directors and other senior management are motivated to focus on sustainability, including evidence that sustainability objectives are part of their formal performance objectives and remuneration arrangements	Our position remains <b>unchanged</b>
Communicate how material sustainability issues affect the business (eg operating costs, employee turnover, licence to operate etc)	<b>Completed.</b> Introduction to each section of our report explains why the issue is important to us
Clarify whether stakeholder engagement at Group level had informed the identification of the sustainability issues faced by the Company or whether a wider group of stakeholders had been directly involved in developing the 2020 vision	<b>Completed.</b> A number of external stakeholders provided feedback and we improved the roadmap by adding sections on diversity, leadership and talent
Provide more detail on how the Company manages its migrant workers and how it will work with its supply chain to address its indirect (Scope 3) greenhouse gas emissions	Ongoing. More detail provided on how we manage migrant workers in Dubai. We continue to develop our understanding of our Scope 3 emissions and will work with our suppliers to identify opportunities to reduce emissions
Provide targets for the Company's key performance indicators	Completed. Developed through the roadmap and summarised in this report
Take greater care in the terminology used in the report (eg people vs. workforce)	Completed. Clearer definitions provided

Our "open door" design symbolises openness, emphasises sustainability and creates an exciting new public

into the building The public was invited to view and comment on the competing designs. Half the site is dedicated

**Bringing the community** 

# **Profitable markets**

Sustainable businesses need to be consistently profitable. Here, we examine how our approach to sustainability can itself generate profitable business growth.

We believe that sustainability will have a growing influence on our business, our customers and other stakeholders over the coming decade. It will therefore be a competitive issue in the marketplace. Through our leadership we can influence the market so that sustainable infrastructure is consistently the best option. We want our customers and investors to choose Balfour Beatty because we contribute to their long-term profitability through more sustainable infrastructure.

# Sustainable

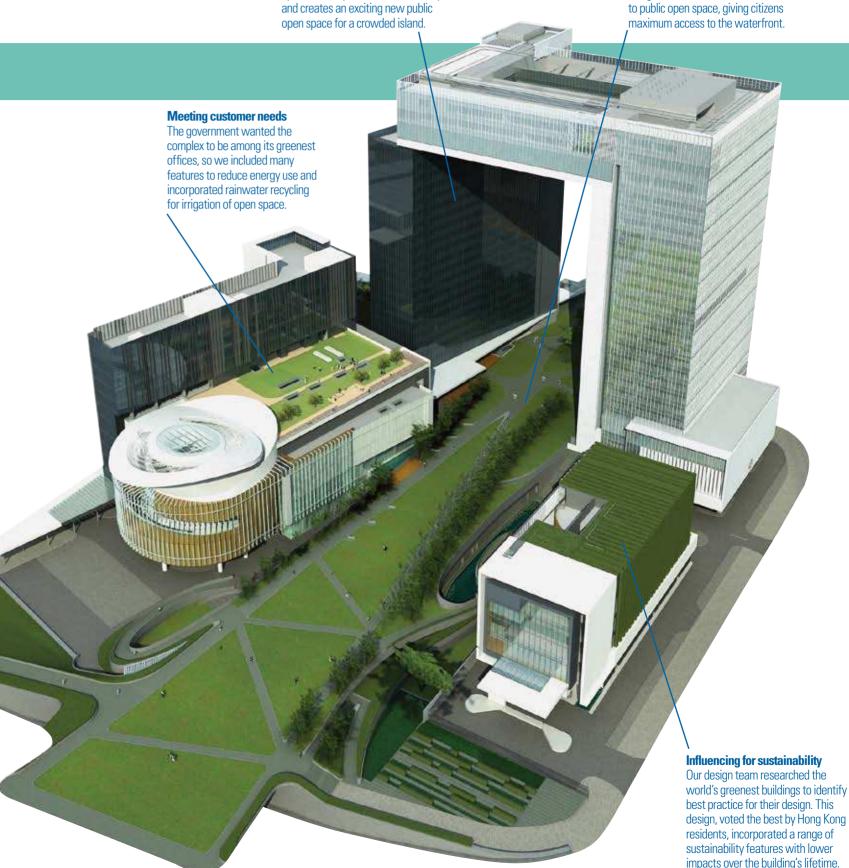
# SOLUTIONS

We are building the **Tamar Complex** as Hong Kong's new seat of government. We won the contract for our ability to provide world-class design and construction as an integrated package, and for the high standards of sustainability, safety and sensitivity to local needs that we embodied in our approach. Rather than focusing on upfront capital costs, we applied whole-life cost thinking to explore a range of environmental and cost-saving opportunities over the operational life of the building.



"The Tamar development project will be an iconic place to mark Gammon's leading position and Balfour Beatty's involvement in the Hong Kong construction industry." Edward Yeung, Project Director. Gammon Construction Left

"This project is a fantastic platform to advance sustainable construction. There are many environmental aspects to the programme, from waste management, partnering with the university on bio-remediation, to materials sourcing." Shirlee Algire, Group Sustainability and CSR Manager, Gammon Construction Right





'Our supply chain must understand the importance of the Government's sustainability priorities and respond accordingly. Managing sustainability will be a key differentiator in the supply chain." Highways Agency procurement strategy 2009

**Profitable markets** 



# OK for UK on CO<sub>2</sub>

Can the UK meet its commitment to an 80% reduction in CO<sub>2</sub> emissions by 2050? Yes, reported Parsons Brinckerhoff after a two-vear study. given strong leadership and focus on the measures identified in its December 2009 report. Powering the Future.



Saving US Army's energy We are working with the US Defense Department to encourage personnel and their families living on military bases to use less energy. We have achieved results with an education programme that combines smart meters, personal coaching and, for kids, our mascot BAL-4.

# Meeting customer needs

Meeting customer needs is fundamental to any business. As sustainability moves up our customers' agendas, we need to ensure we are best placed to help them achieve and. where possible, exceed their sustainability aspirations.

We believe sustainability is increasingly important for customers, and our ability to deliver more sustainable solutions will be a key differentiator in increasingly competitive markets. Through our scale and leadership, we can positively influence the growth of these markets. Over time, growing numbers of customers will need sustainability to be part of the way we meet their requirements. This is particularly evident in Hong Kong, where our focus on sustainability is already helping us to win work.

The low-carbon, resource-efficient economy of the future will open up new markets for us. Our 2020 sustainability vision in this area is to:

- Deliver products and services that respond to the sustainability needs and aspirations of customers and society
- Help customers to align their sustainability goals to society's expectations and to environmental limits.

- Evolving our strategy to meet customers' requirements. In our experience, major infrastructure owners increasingly want to work with integrated suppliers
- Running regular customer satisfaction surveys to ensure we are performing to a high level
- Sharing knowledge across the Group to capture best practice and innovative ways of meeting and solving complex problems
- Maintaining close relationships with customers though relationship managers across the Group
- Carefully monitoring our order book, which stood at £14.1bn at the end of 2009. This is a conservative figure which excludes contract extensions, framework contracts or long-term concession income
- Promoting innovation in all our operating companies, driving best practice through our Group-level innovation forum, and developing more sophisticated knowledge management systems and processes.

### What's next?

The 2012 expectations in our sustainability roadmap set out our plans for meeting and, where possible, exceeding our customers' sustainability aspirations. We will also include sustainability considerations in our project risk and opportunity reviews.

We will develop key performance indicators to track the value of the sustainability products and services we deliver and the projects where sustainability deliverables have been agreed by the customer.

# Influencing for sustainability

Through our scale, diversity of operations and global spread, we have a major opportunity to influence the direction of the emerging sustainability agenda to help grow our business. We have been particularly successful in developing sector-based approaches to low-carbon infrastructure and sustainable schools.

### Why it matters

Influencing the market to adopt more sustainable outcomes is a strategic priority for us. Ultimately, sustainability is about the long-term growth and survival of our business. The sustainability agenda provides exciting opportunities to expand into new markets for the low-carbon, low-waste and resource-efficient economy. Government forecasts indicate that environmental markets worldwide will grow from US\$700bn in 2010 to US\$3tm by 2050.

We aspire to be a market leader in making sustainable development happen. This will benefit our business by:

- Reducing our own operating costs through energy and resource efficiency
- Helping us recruit and retain the best people in our industry
- Differentiating our products and services to help us to win work and capitalise on new business opportunities.

Influencing a range of stakeholders is central to the theme in our vision that sustainability is a collective responsibility.

# What we're doing

Our approach has focused on:

- Taraeting research and thought leadership on emerging issues (especially energy and carbon)
- Identifying and delivering innovative solutions to our customers' sustainability challenges through excellence in our people
- Sharing our successes, capabilities and expertise through conferences, our marketing materials for customers and features in the trade and technical press.

The addition of Parsons Brinckerhoff (PB) to the Group has accelerated our influence across a range of issues and sectors. In addition to advancing renewable energy sources, PB is a pioneer on emerging technologies such as carbon capture/storage and tidal power. PB's technical strength gives us the opportunity to transform our capabilities in delivering sustainable solutions to a wide range of customers

You can read more about the work we have contributed to in developing more sustainable schools online, including our work on zero-carbon refurbishment, at: www.towardssustainableschools.org

We are aiming to be more effective in promoting our sustainability capabilities and successes to our customers and prospective customers. Through both words and action we need to change the perception that sustainability is a cost rather than an investment and encourage our customers to select more sustainable options.

Influencing the market will be challenging in a tough economic climate, where the short-term focus is on cost and capital budgets are disconnected from operational budgets. To see the cost-effectiveness of sustainable technologies it is often necessary to consider an asset's lifecycle rather than the upfront capital cost alone.

Communicating sustainability in language that our customers understand will be critical in delivering the aspirations of our sustainability vision.

# Taking the LEED





As we neared completion of the 700 Sixth Street office building in Washington DC, our customer upgraded their sustainability goal. Instead of achieving silver-standard eadership in Energy and Environmental Design (LEED) certification, we now had to meet the platinum standard, the most demanding level of green building certification in the US.

We rose to the challenge, winning our first platinum LEED rating with features that included an innovative green roof. Meeting customer needs in this area really matters, as the market for greener buildings in the US is forecast to rise from US\$12bn to US\$60bn by 2010.

# Our opportunity

Research suggests that markets for sustainable services and technologies will grow rapidly in the next decade – and we believe we are well-positioned to exploit this growth.

growth in the UK's low-carbon economy expected by 2015 (UK Governi

committed to energy efficiency schemes in the US (World



estimated as the value of environmental markets worldwid by 2050 (UK Government)

14 Healthy communities

# 300

### Zero Harm

Our Zero Harm commitment applies to everyone who comes into contact with us. So we have engaged the community in helping us make Travis AFB a safer place — and recently celebrated over 300 days without an accident.

# **Healthy communities**

Balfour Beatty consists of over 50,000 people, designing, building and maintaining infrastructure to serve communities. So people and communities are at the heart of our business. This section reviews how we see our responsibilities to them, and how we translate those responsibilities into action.

Our pre-eminent concern must be safety — protecting the well-being not only of our own people but of everyone we come into contact with. Our sustainability as a business depends on how successfully we recruit, develop and motivate our people, so this must be a priority too. We, and our customers, also recognise that we have a wider responsibility to the local communities wherever we work. So we seek to make a long-term contribution to society through our community investment as well as the infrastructure we create.

# Creating real COMMUNITES

Our operation at **Travis Air Force Base (AFB)** in California has been named Private Sector Partner of the Year by the Association of Defense Communities. The award reflects the care we take to provide not just military housing but neighbourhoods with a real sense of community. For example, our LifeWorks programme offers a wide range of activities, builds friendships and enriches lives. It is open to over 100,000 residents in the 44 installations we serve.



"My family and I found that Balfour Beatty really goes that extra mile to create a community where service members want to live and raise their families. Their resident-life programmes give my family a chance to meet other families and build friendships — and that really helps us feel welcome here." Tamara Leon, resident of Travis AFB Left

"We have really worked hard to embrace the Zero Harm safety vision here at Travis AFB. The great thing is that Balfour Beatty employees engage with our residents on our journey to achieving Zero Harm, which has strengthened relationships by working towards the same goal." Patrick Hoppaugh, Community Manager, Travis AFB Right







"In Zero Harm, we have struck a chord in the hearts and minds of a large body of people across the Group. Against the background of tough economic conditions and all the pressures this brings to our businesses. I see no dilution in the determination of our people to achieve Zero Harm."

Andy Rose, Group Managing Director

**Upgraded undercutter** Our US\$6m Austrian rail ballast

undercutter is the largest single equipment investment we have made in the US. Our technical team insisted on numerous 7ero Harm enhancements before taking delivery: see our online sustainability report for details.

"I now have a better appreciation of cultures around the world and different ways of working. It's definitely enhanced my career." Sam Bennett, who has worked on projects in Indonesia, Dubai and Singapore since



**Healthy communities** 

# Safety



# Why it matters

We believe that by looking after our employees, we will encourage them to look after themselves and others affected by their activities. This will strengthen our reputation as a trusted employer and supplier of high-quality, safe services to our customers. Only by setting the highest standards for ourselves will we be able to retain the trust of our customers and the people using our infrastructure.

Exemplary safety performance is a prerequisite in many of our markets. Our industry-leading safety performance helps differentiate our offering and maintains our licence to operate – particularly for customers with a similar focus on safety excellence.

### What we're doing

We have always set ourselves high standards in safety, but in October 2008 we went further still, committing to reach Zero Harm across all of our businesses by 2012. We believe our Zero Harm vision is one of the most challenging ever declared by a major infrastructure group.

By 2012 our goals are:

- Zero deaths
- Zero injuries to members of the public
- Zero permanently-disabling injuries.



In the first full year of our Zero Harm journey we have:

- Developed detailed implementation plans within each business
- Identified the key fatal risks in each business
- Engaged our people, subcontractors, suppliers and customers in exploring how we can deliver Zero Harm together
- Shared 70 case studies and other examples of best practice across
- Conducted over 25 detailed reviews of best practice at exemplar work sites in each business
- Held Zero Harm summits with our senior management
- Engaged the Board on Zero Harm, spending a full day reviewing progress.

# What's next?

Our priorities for the year ahead are:

- Continue to refresh and strengthen our Zero Harm journey plans, eliminating fatal risks and life-changing injuries, while engaging with our key stakeholders
- Continue to learn from one another, share and replicate good practice
- Invite our top 400 leaders to attend a programme designed to support them in achieving and maintaining Zero Harm.

During the second half of 2010 we will identify what else we need to do to reach our 2012 goals.

Our online sustainability report has more information on safety and Zero Harm, and a section on employee health and well-being, at: sustainabilityreport09.balfourbeatty.com

# Safety in numbers

	2008	2009	
Accident frequency rate*	0.20	0.17	down 15% on the previous year and 70% since 2002.
Fatal accidents	8	3	one on a worksite in the US, one on a worksite in Hong Kong and one road accident in the UK.
Permanently disabling injuries	6	3	down 50% on the previous year.
Injuries to the public	178	156	restated, of which 87% were minor.

During 2009, Balfour Beatty was convicted and fined for six health and safety related offences. Fines totalled £100,000 in the UK, AUS\$800 in Australia and HK\$30,000 in Hong Kong Further detail can be found online at: sustainabilityreport09. balfourbeatty.com

**Enforcement actions** 

\*Per 100,000 hours worked by our employees and sub-contractors.

# Talent and training

joining us in 2000.

We have an enormous responsibility to ensure that our people are safe, well-managed, productive and able to enjoy their working lives. Placing emphasis on training and development helps us maintain a motivated workforce, and by putting the appropriate measures in place we aim to retain the talent we need to differentiate ourselves within the marketplace.

We must not only attract the most talented people in the industry, but also retain them. Our customers expect to work with talented people, and with much of our business carried out in partnership we need people who can confidently work in a variety of different

With our acquisition of Parsons Brinckerhoff (PB), we now employ a significant number of people in professional services, who often have different training needs from those people employed in other parts of the Group.

# What we're doing

Our geographic spread and breadth of opportunities set us apart from competitors. Making our current employees aware of the scope of career opportunities in the Group is a priority for us. During 2009, we rolled-out our e-recruit system that allows our employees to view vacancies across the UK and, in 2010, we will be looking at how we can advertise our vacancies across the world to all Balfour Beatty employees.

By moving people around we retain talented people and benefit from the varied skill sets they gain from working in different businesses across the Group. Wherever possible we try to give those people seeking career enhancement, or those working on projects coming to an end, the opportunity to move within the Group.

All our businesses undertake an organisation and people review with members of the executive team. This looks at the succession and development plans to ensure that we have a talent pipeline in place.

We identify potential leaders at all stages of their career through personal development reviews, conducted by line managers in each business. Senior managers review a list of people classed as high potential to ensure that we integrate their development into succession planning.

In 2009, we spent £30 million on employee training (2008: £20m). We provided over 80,000 days of training across the Group. In addition to each of our operating companies' leadership programmes, the Group runs a Balfour Beatty management development programme for managers aspiring to senior roles. We offer employment, training and real prospects in a range of apprenticeships and traineeships, which can lead to degree qualifications through part-time study.

Great companies are built on the capability of their leaders. With our ambitious plans for further growth, it is now more critical than ever that we attract, recruit, develop and retain the best people to lead our business into the future. We are developing a leadership framework, mapping out what it takes to be a successful leader in Balfour Beatty.

# What's next?

We plan to expand the Balfour Beatty e-learning platform – including building on PB University, Parsons Brinckerhoff's well-used training platform - which will provide online training courses in areas from personal growth to functional skills.

Looking forward to 2020, we believe that a successful leader in Balfour Beatty will be one with a passion for sustainability. We will include sustainability in our leadership framework to equip our leaders with this knowledge.

# Graduate recruitment and retention



Graduates can add exceptional value to our business. In 2009, we maintained our graduate recruitment programme despite the economic climate, recruiting 454 graduates across the Group (2008 total: 311).

Each business has its own induction process, but all share common elements such as our focus on Zero Harm and sustainability.

In recent years we have responded to feedback by giving graduates greater access to, and support from, senior management. This demonstrates our willingness to invest time and interest in their development.

An annual two-day conference for graduates from the UK and European businesses provides opportunities for networking and learning more about

the wider Group. At the end of their first year, graduates are invited to Group Head Office to give Directors feedback on their experience to date.

At 1 December 2009, our graduate retention rates were 90% after one year and 67% after three years (2008: 84% and 60%)

Ben Muncey (pictured) won the 2009/10 Chairman's Graduate Prize for Innovation for an advanced system to prevent over-height vehicles colliding with overhead hazards. For the 2009/2010 prize, we received 61 entries, 22 of which were from Parsons Brinckerhoff



# One of the best

In the US, Balfour Beatty Construction was named one of Fortune's 100 Best Companies to Work For, based on independent analysis and employee research.

# One of the most admired

Management Today's 2009 poll of the Most Admired Companies within the UK placed us top in our sector for the fourth year running and 19th overall out of 236 companies.

# **Balfour Beatty Spirit!**

In our US construction business, every office has a *Balfour Beatty Spirit!* team that leads community support activities — such as building and refurbishing homes for elderly low-income residents in Dallas. Together they raised over US\$1.3m for charities in 2009



# Challenging London's young people

Our £1.8m commitment to the Balfour Beatty London Youth Games until 2013 gives young people the chance to compete in 30 sports each year. The 2009 Games involved 47,740 participants from all 33 London boroughs.

# **Healthy communities**

# Engaging a global workforce

We want our talented people to stay with us, recommend Balfour Beatty as an exciting place to work, and help us to achieve our business goals. To attract, retain and develop the best people we reward them appropriately and give them all equal opportunity to grow and maximise their potential.

# BRITAIN'S MOST ADMIRED COMPANIES accenture

# Employee engagement

### Why it matters

As we move to a more unified Group culture, we need to engage our employees now more than ever. So we will continue to develop strategies that build on our success to date.

### What we're doing

Our Zero Harm safety vision captured the imagination of our people throughout the organisation. We defined our values programme to roll-out and embed the values across the whole Group. The values help to make it clear that our employees belong to their operating company and the Group in equal measure. They aim to create unity, not uniformity, leaving room for different cultures to flourish.

In 2009, total employee absence rate was 2.12 (2008: 2.3). PwC Saratoga research gives an average of 4.3% sickness absence in engineering/manufacturing businesses in Europe, and 4.2% for all industries/businesses in Europe.

Eleven of our businesses conducted employee surveys in 2009 (2008: 10), reporting an overall 2% increase in satisfaction.

### What's next

During 2010, our HR teams will be seeking to ensure that our values are embedded in a range of our people process including, performance development reviews, recruitment processes and engagement surveys.

# **Diversity**

# Why it matters

Cultures, ethnicity, education levels and use of language vary considerably across the Group. Embracing this diversity can help us to appeal to a wider range of customers, suppliers and local people wherever we operate.

## What we're doing

Our Code of Conduct commits us to providing equal opportunities for all. In the UK 7% of employees are from an ethnic minority (2008: 6.4%) and 17% are non-white across the Group.

Our work on the East London Line included customer-led diversity standards. We have since adapted these, working with consultants to produce an independently-accredited "respect for people" training course and best-practice model. We are a Tier 1 supplier to the Olympic Delivery Authority, which gave us an award for being the contractor that had contributed the most to diversity and inclusion on the Olympic Park in 2009.

### What's next?

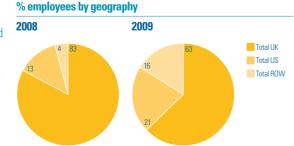
Our 2012 sustainability expectations require us to:

- Continue to measure, benchmark and review diversity performance
- Give at least 90% of staff annual performance appraisals
- Conduct exit interviews for at least 90% of leavers to understand why
  people leave and further improve retention.

For more information on other employee issues, including well-being and benefits, see our full online sustainability report: sustainabilityreport09.balfourbeatty.com

# Our changing workforce

We now operate in over 100 countries, with widely varying employment laws and standards of living compared to the UK. During 2010, we expect a considerable exchange of knowledge and best practice with Parsons Brinckerhoff, which has a number of diversity training programmes.



# Values in action: migrant workers in Dubai

Our two Dubai-based joint venture businesses employ some 11,000 hourly-paid workers, mainly from the Indian subcontinent. They live in purpose-built, company-serviced accommodation with a variety of dedicated facilities. We were the first major contractor in Dubai to give migrant workers debit card and ATM facilities. We have a dedicated training facility, and a mobile safety training unit also visits sites. During 2009, we developed unique methods of conveying the Zero Harm message, and all workers receive the same high standard of protective equipment used across the Group.

# Working with local communities

We regard corporate citizenship as an integral part of our business and want to contribute to communities wherever we work — not simply through the infrastructure we leave, but in our wider contribution to those communities. Investing in these communities helps us to make a long-lasting contribution to society and to local people.

# Community engagement

### Why it matter

We recognise the legitimate interests that local communities have in the way we do business. By engaging with them early and consistently we benefit from their positive reaction to our work, and learn from their knowledge of local areas. Our customers expect to see demonstrable involvement with local communities in bid documentation. Delivering better projects and services, by playing a positive role in all the societies and communities in which we operate, helps us to secure future work.

# What we're doing

Our Code of Conduct explicitly outlines our commitment to respecting the community around us. We train our employees to think about their engagement with local people, encouraging and empowering them to take responsibility for their actions.

Consultation with local people often involves leaflet drops, project websites and community discussions or exhibitions. To ensure we listen to them as well as inform them, our larger sites have permanent community relations staff. They aim to create a sense of community ownership throughout our projects by building relationships with local authorities, community organisations, and residents.

# What's next?

As part of our 2012 sustainability expectations, we will continue to engage with local stakeholders to understand their views and explore opportunities for further improving the communities we serve.

The second phase of online Code of Conduct training, due for launch across the Group before the end of 2010, aims to embed our commitments to respecting the community around us.

# Community investment

### Why it matters

Actively engaging with local communities to deliver social benefits "beyond the contract" can help us to win repeat business and strengthens our position as a good corporate citizen. It also helps to engage our employees.

## What we're doing

Our focus on helping young people to make the most of their futures fits with our desire to create a sustainable future for the business. We now support a wide range of programmes and activities designed to enhance young people's aspirations, motivation, quality of life and achievement levels.

To mark our centenary in 2009, we set up a charitable trust to help focus our energies in support of disadvantaged young people. The programme, branded Building Better Futures, aims to provide appropriate financial assistance to a wide range of projects, designed by expert organisations to help young people.

### What's next?

Building Better Futures will continue in 2010 supporting three UK charities. We will continue to work with our businesses outside the UK to share charitable activities across the Group, involving as many employees as possible.

For more information on how we engage with communities, including local suppliers, see our full online sustainability report:

sustainabilityreport09.balfourbeatty.com

# Values in action: outreach programme in Hawaii



In Hawaii, Parsons Brinckerhoff has been working with the Department of Transportation to bring the state's storm water management into full compliance with Federal requirements.

One of the programme's many components was a state-wide public education and outreach programme. Employees continue to volunteer at more than 18 events each year, helping more than 150,000 people to understand the importance of water management.

# Power station ash

We have replaced traditional imported fill with pulverised fuel ash from power stations, diverting 375,000 tonnes of waste from landfill.



# 11,325 trees

So far we have planted 11,325 trees including maples, alders and oaks. We have also relocated 3,750 amphibians including 250 great-crested newts into retained areas of suitable habitat.

# **Environmental limits**

We see clear business advantage in taking a leadership position on environmental issues, recognising the opportunities in helping customers reduce their own impacts and respond to environmental pressures.

Improving our own performance in areas such as carbon and waste reduction will reduce our costs. As customers increasingly consider environmental performance — from carbon footprints to ecology — in their purchasing decisions, a leadership position will give us competitive advantage. Environmental factors are also creating new markets for us, from alternative energy generation and transmission to protecting assets from climate change.

# Road to the FUTURE

By thinking differently, we are constructing a road near Bedford in England more sustainably than ever before. We are using alternative materials – some previously unheard-of in highway construction and aiming for major  $CO_2$  savings. And this road is just the beginning of a long journey: we are sharing the ideas pioneered here across the Group.



"Great teamwork by great people with great ideas have combined to deliver a sustainable A421. Our legacy will be a safer road for sustainable communities."

Phil Clifton, Project Director, Balfour Beatty Left

"The A421 sets a benchmark for the use of alternative materials on future projects. The use of tyres and power station ash are a win-win, environmentally and economically."

Suzanne Byron, Environmental Adviser, Balfour Beatty Right



# **Sharing our carbon data**

We were one of 2,500 organisations reporting their global emissions to the Carbon Disclosure Project (CDP) in 2009, and one of 700 sharing this data with customers to help them assess their supply chain carbon impact. Our score of 57% placed us in the first quartile of respondents (average score 39%).



# Waste spoil database

In Hong Kong, Gammon Construction developed a web-based waste spoil exchange database in 2009. Project sites report when they will have excavation spoil, which other sites can then use to meet their fill requirements, saving significant sums in disposal fees.



# Old buildings make new road

On a road project in California we brought in mobile crushing plant to re-use over 350,000 tonnes of asphalt and concrete from nearby demolition work. "This saved us US\$0.7m in material costs and avoided waste going to landfill," commented project manager Ural Yal.

# **Environmental limits**

# Energy, carbon and climate change

The growing low-carbon economy presents us with a multi-billion pound market opportunity across the Group. We are using our expertise to help our customers achieve their carbon reduction goals, while also playing our part by reducing our own emissions.

### Why it matter

Climate change is high on the agenda of governments and a growing number of our customers, as the world looks for ways to address climate change and diminishing fossil fuel supplies. We want to play a leading role in the transition to a low-carbon economy, particularly since the built environment accounts for around half of global greenhouse gas emissions. All our businesses can benefit.

UK Government research indicates that the UK's low-carbon economy will grow to £65bn by 2015, presenting us with further opportunities in areas such as wind energy, waste management and low-energy buildings.

In the US, nearly US\$75bn in tax incentives will be poured into wind, solar and energy efficiency schemes by 2017, while the market for green buildings and renovations is forecast to reach US\$300bn in 2010.

Climate change itself presents new opportunities for us. We are developing and deploying ways to protect critical infrastructure against the physical impacts of climate change.

# What we're doing

Reducing our emissions of carbon and other greenhouse gases features strongly in our 2020 vision and roadmap.

Our businesses continue to seek ways of reducing their CO<sub>2</sub> emissions from their own buildings, project sites and transport fleets through initiatives such as increased use of video conferencing, encouraging car sharing and cycling to work, raising staff awareness of energy saving, training in fuel-efficient driving, and introducing more energy-efficient equipment, plant and controls.

We have a responsibility to look for carbon savings beyond our own direct emissions and into the projects we design, build and manage for our customers. We have begun work on quantifying these "Scope 3" emissions. Our work on the A421 road project illustrates what we have learnt on a major road scheme where Scope 3 emissions accounted for 94% of the project's carbon footprint (see pages 20-21).

We have started to look at techniques and approaches to maintain existing infrastructure in a changing climate, ranging from future-proofing new projects to retrofitting solutions to existing assets. Our customers will increase their investments in adaptation measures, providing us with opportunities to provide technical advice and infrastructure upgrades such as coastal and flood defences.

### What's next?

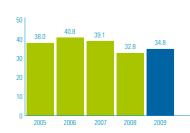
Our sustainability roadmap will lead us to a 50% reduction in greenhouse gas emissions between 2010 and 2020 (relative to revenue). Our interim goal is a 10% reduction by 2012.

Our first step in meeting this goal is developing a robust baseline covering all our Scope 1 and 2 emissions by the end of 2010, including Parsons Brinckerhoff. Reducing emissions will require a mix of efficiency improvements, behaviour change, innovation and wide-scale deployment of low-carbon technologies in our own buildings, plant and vehicle fleet. We will also improve our understanding of our indirect (Scope 3) emissions.

By 2020, we will aim to make all our infrastructure projects resilient to the future predicted impacts of climate change over their design lifetimes. We will also develop adaptation responses for existing assets.

# Our carbon footprint

 $\textbf{Global equivalent CO}_{2}\,\textbf{per}\,\textbf{£m}\,\textbf{revenue}\,(\textbf{excluding air travel data})$ 



Our own carbon footprint is dominated by emissions from mobile plant and our Company vehicle fleet. In 2009, our emissions of  $CO_2$  from vehicles, plant and buildings totalled 383,400 tonnes (2008 restated: 324,000 tonnes). The increase

reflects first-time reporting by BK Gulf and our US construction business, as well as improvements in the accuracy of our data. Relative to revenue, our  $\text{CO}_2$  emissions were 34.8 tonnes/£m, an 8% reduction from the 2005 figure of 38 tonnes/£m.

# Waste

Some 85% of the waste we generated in 2009 was diverted from landfill through recycling, recovery and re-use. We continue to work hard to measure and ultimately divert all our project waste from landfill. The waste infrastructure market represents a multi-billion pound opportunity for us.

### Why it matters

Constructing, refurbishing and demolishing buildings, roads, railways, bridges, tunnels and other structures generates huge quantities of waste.

The US Environmental Protection Agency estimates that the sector produced 330m tonnes of waste in 2005. In the UK, the construction industry produces over 100m tonnes of waste a year, of which around 40% goes to landfill. The UK's strategy for sustainable construction aims to halve the amount of construction and demolition waste going to landfill by 2012.

Avoiding waste going to landfill brings us operational cost savings as well as environmental benefits. It can differentiate us in the marketplace, help us to deliver lower cost projects and to meet customers' desire for lower environmental impacts, and enable us to achieve our 2020 goal of zero waste to landfill.

We also see opportunities to finance, build and operate new infrastructure to sort, recover, reprocess and extract energy from waste. The UK Government's Waste Strategy for 2007 identified recycling and energy recovery as the key to reducing municipal waste to landfill. The need for 35–40 municipal waste and energy-from-waste plants represents a market worth over £8bn by 2015 in the UK alone.

# What we're doing

Our businesses seek opportunities to reduce, re-use, recycle and recover waste and to use recycled materials where possible. We are sharing best practice across the Group, developing new ways of managing our wastes and finding uses for wastes from other sectors. We also play our role in creating valuable markets and opportunities to re-use waste materials in our projects.

Diverting waste from landfill by using recycled materials is illustrated by our emergency stabilisation works for Network Rail at Stoke Gifford in the UK. We used 84,000 tonnes of recycled track ballast rather than incorporating virgin stone, mixed the ash from 250 tonnes of timber waste from vegetation clearance into the works and found local construction sites to re-use a further 15,000 tonnes of excavation soil. This project won Network Rail's environmental sustainability project of the year for 2009.

# What's next?

Our ultimate goal is zero waste to landfill by 2020, with an interim global target of reducing waste to landfill by 50% (relative to revenue) by 2012.

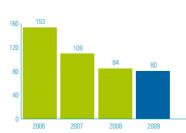
Accurate data is essential if we are to measure our progress to halving waste to landfill over this timescale. We will establish our global baseline on waste to landfill by the end of 2010.

We have made waste management one of the priority categories for our UK supply chain management programme. This will cut costs, help us develop more robust data for our 2010 baseline, and encourage supply chain partners to work with us on innovative waste solutions.

To drive re-use of waste we have also set a target of at least 25% of our major materials coming from recycled sources by 2012, where we specify the material.

# Our waste performance

Total relative weight global waste disposed to landfill (tonnes/£m revenue)



Relative to revenue, our global operations disposed of 80 tonnes of waste to landfill/£m in 2009 (2008: 84), a reduction of 5% over the year and a 48% reduction since 2006.



"I have been given the opportunity to apply sustainable design thinking for materials selection in projects in Dubai and London."

Sylvia Edwards, Project Development Manager, Parsons Brinckerhoff

# **Environmental limits**

# Enhancing ecology

The Cross Valley Link Road near Northampton in the UK crosses an ecologically important site. Our strategy for enhancing existing features included growing 1,000 willow cuttings in an on-site nursery, creating 20 hectares of new wetland habitat, planting 25,000 native trees and shrubs and relocating 400m of species-rich hedgerow and grassland habitat.



# Protecting watercourses

Stormwater management practices at US construction sites, to prevent runoff carrying contaminants into local watercourses, are considered to be the best in the world. During 2009, we shared this US best practice with our European businesses.

# **Materials**

Nearly 90% of the timber we buy directly (by value) comes from recognised responsible sources. We are extending our responsible-sourcing practices to include at least 25% of our other major construction materials by 2012.

### Why it matter

The construction industry consumes some 40% of the earth's resources worldwide. As populations grow, so will demand on natural resources and the degradation of the environment. This could adversely affect the availability and cost of natural materials.

Our customers increasingly expect their assets to be built and maintained using responsibly-sourced materials with minimal lifecycle environmental impact. The UK has set a target for 25% of construction materials to come from responsible-sourcing schemes by 2012. Taking a lead in this area can help differentiate our business in the marketplace; not only is it right but it enhances our reputation with customers and other stakeholders.

Reprocessing demolition and other waste materials for use in our projects minimises demand for primary materials such as aggregates, helping to conserve them for future generations, minimising environmental impacts and reducing our costs.

# What we're doing

We continue to procure timber from recognised sustainable sources, verifying the chain of custody of such materials through the supply chain. This includes timber certified by the Forest Stewardship Council (FSC) and the Programme for Endorsement of Forestry Certification (PEFC).

We have started to extend data collection systems to track the sourcing of other major construction materials such as aggregates and concrete. We are also developing our understanding of the environmental impacts of the materials we use on our projects so that we can select those with lower lifecycle impacts.

Aligning our suppliers' thinking with ours on the responsible sourcing of materials will be a key element in delivering a more sustainable Balfour Beatty.

Our construction and civil engineering businesses seek to use recycled materials where possible to reduce demand for primary materials and save costs. We have been particularly successful in this regard with major infrastructure projects.

### What's next?

Responsible procurement of materials will continue to grow in importance. Responsible-sourcing schemes will continue to be developed, encompassing other major construction materials in addition to timber and considering legal requirements, employment, safety, child labour, community and environmental impacts.

The 2012 expectations in our sustainability roadmap set out our plans for selecting materials with lower environmental impacts and extending our approach to responsible sourcing by:

- Assessing and understanding the high environmental impact materials used in our projects
- Establishing plans to minimise these environmental impacts over the project and product lifecycle
- Monitoring our use of major materials such as timber, concrete, aggregates, steel, aluminium and copper
- Procuring at least 25% (by value) of these major materials from recognised responsible sourcing schemes, where these exist
- Procuring 100% of our timber and timber products from recognised responsible-sourcing schemes.

# Our global timber spend

# **Global % spend**



In 2009, 89% of our operating companies' timber spend by value came from certified managed sources (2007: 69%). Of that total, 67% came from FSC certified sources (2007: 54%).

% of timber purchased from all certified sources (Unit: %)
% of timber purchased from FSC sources (Unit: %)

# nabitat, planting 25,000 native trees os and relocating 400m of species-rich w and grassland habitat.

# Other environmental issues

While our materiality analysis indicated that water and ecology are lower impact issues at the current time, both of these retain significant potential to affect our business and require similarly robust standards of management.

# Water

# Why it matter

The United Nations estimates that 2.8bn people in 48 countries will face water stress or scarcity by 2025. Pressure on water resources will grow with the world's population. Our water use represents an operating cost as well as an environmental impact. These costs could rise, and restrictions on usage may affect our operations in times of drought. But future water shortages could also provide opportunities for new and upgraded water treatment infrastructure and innovative solutions for supplying our water needs.

# What we're doing

We measure direct use of water from our own estate and project sites. Our focus has been to reduce water usage in our premises (for example through self-closing taps, waterless urinals and staff awareness campaigns) and on construction sites (for example capturing rainwater for plant cleaning, concrete batching and dust suppression). We also seek to provide new buildings with water-saving technologies such as water recycling and rainwater harvesting.

# What's next?

We will measure our own water use across our global operations by the end of 2010 to develop a robust baseline for tracking our performance. Against this baseline we have set a 10% reduction target (relative to revenue) by the end of 2012.

Researching and understanding our wider water footprint, encompassing the water embodied in the materials we use or consumed in their manufacture, will help us to determine where best reductions can be made.

# Ecology and environmental protection

### Why it matters

Wildlife and ecological habitats are becoming increasingly stressed and threatened by human activities. Maintaining a rich diversity of healthy species and habitats is increasingly important to our customers and the communities affected by our work.

Through our operations we have the opportunity to reduce our impacts on ecological resources and even to enhance them through better design, development and management of our projects. We can also improve the way we manage our own estate. Consistently delivering projects with net ecological gains will help differentiate us in the marketplace.

### What we're doing

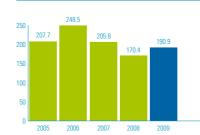
Many of our businesses produce ecology action plans for individual projects. Some produce annual plans for managing sensitive ecological areas including provision of protection measures, creation of temporary or new habitats, briefings for staff and sub-contractors on site rules, and ongoing monitoring and advice from in-house and external ecologists. Increasingly, we use our experience in protecting and enhancing ecological resources to differentiate us in tendering for work.

# What's next?

Our operating companies will be developing ecological action plans to protect the ecological resources and habitats identified in all their projects and their own sites and premises by 2012. Our vision for 2020 is to design, construct and maintain our projects and premises to deliver a net ecological gain.

# Our water use

# Global relative water consumption (m³/£m revenue)



In 2009, our global consumption of water was 2.1m cubic metres (2008: 1.69m). Our water consumption grew due to increased activity in our Far East and Middle East construction operations, and first-time reporting from our US construction business. Relative to revenue, our use of water at 191m³ per £m, reduced by 8% compared to 2005 at 208m³/£m.

# Enforcement actions

Seven minor environmental incidents resulted in fines in 2009 (2008: 5) totalling £15,600. Further detail can be found online at:

sustainabilityreport09. balfourbeatty.com

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To provide feedback, and to view our full sustainability report, please visit:
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