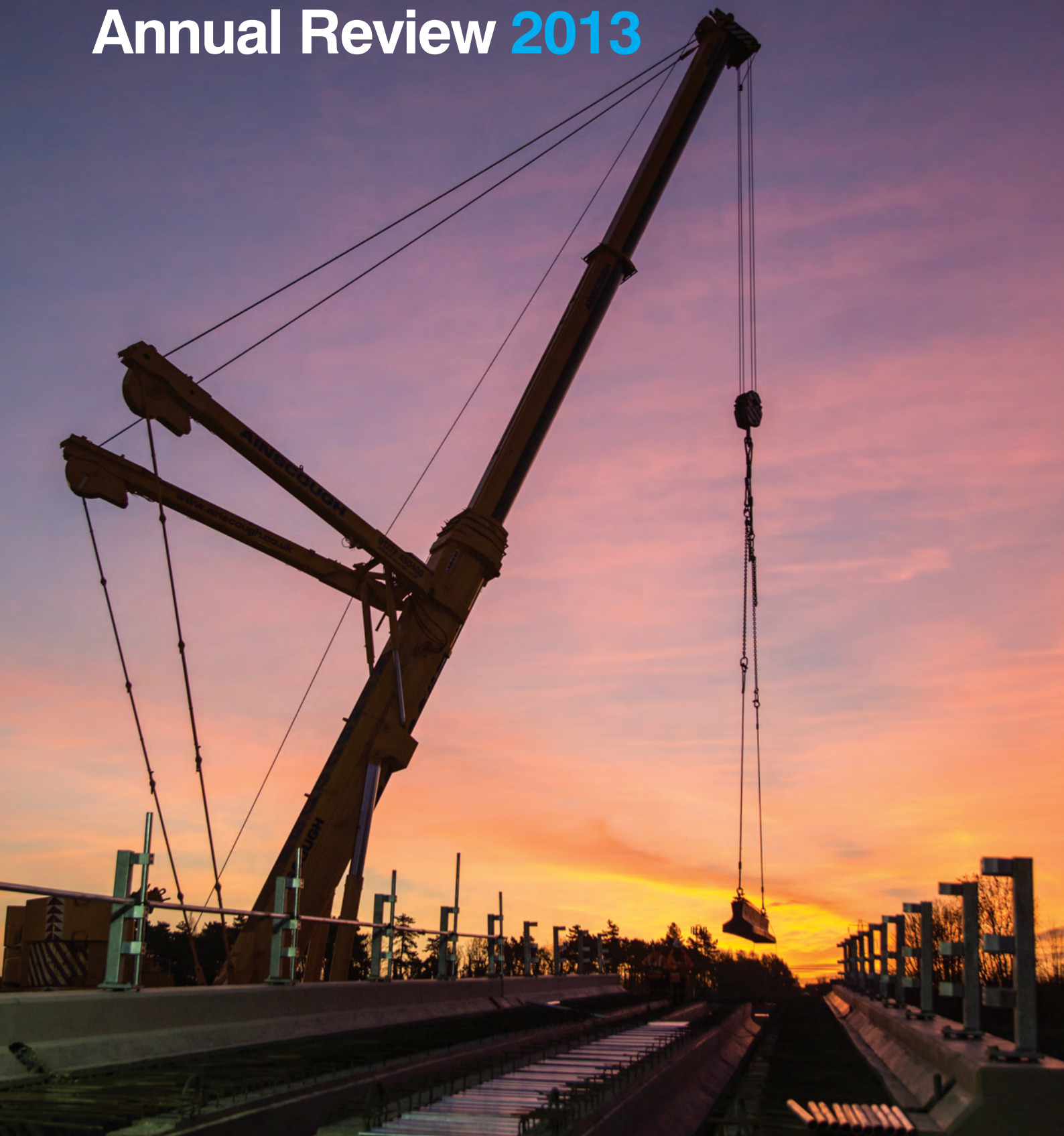


JN Bentley

# Annual Review 2013



# Managing Director's View

Through 2013 we have maintained our revenue performance with the water frameworks for Anglian Water, Northumbrian Water, Severn Trent Water, United Utilities and Yorkshire Water. We are in a privileged position with these customers and we should always remember how important they are to the business. Working with them provides us with some fantastic work to be involved in that is not only challenging but has variety and gives us an ability to share our experiences across the frameworks.

When we are at our best we create a team that is not only interdependent but cares about each other, the customer, the environment and the work they are undertaking. This has been exemplified on many sites but especially at both Strongford and the Covenham to Boston pipeline. On these sites it has been clear to me we have had great engagement from everyone, including suppliers and subcontractors, supporting a happy environment with people enjoying their work.

Outside the water market we continue to enjoy success particularly with the Coal Authority, National Grid and schemes with Procter & Gamble in London. Our work with the Environment Agency on a national Water and Environmental Management framework is starting to deliver revenue growth and opportunity.

As we look to the future we need to ensure we understand the pressures that all our customers face, and rise to the challenges together with them and their other partners. With the great people we have I am confident that we will meet these challenges by continually looking for clever, innovative, more efficient and cost effective ways of working in all areas of our business.

**2013 has been another challenging year for the business yet we have still managed to deliver the financial results we anticipated. We remain committed to our Health and Safety Strategy, which continues to improve our performance towards our target of zero injuries, and we are seeing the benefits of our Cost and Efficiency Strategy as people around the company become more engaged. These combined have put us in a strong position as we continue with the bidding for AMP6 contracts in the water industry.**

To do this we will need to make incremental improvements, ensure we are familiar with our systems and processes and embrace the opportunity audits provide to drive real improvement.

Our safety performance has again remained stable with improved reporting from everyone both in the office and on site, and from our suppliers. I was very pleased to see a significant drop in the number of serious near misses but there was a slight increase in reportable injuries to our people, with three in total. This goes as a timely reminder that we cannot become complacent and everyone needs to maintain their commitment to working towards our vision of creating a workplace with zero injuries.

Our environmental reporting saw another large increase in 2013, which was very encouraging and demonstrates improved awareness. We all need to face up to the challenge of how we reduce our impact on the environment, which will be a key measure for all our stakeholders.

In November last year we held the company seminar at Doncaster. I thought that it was a fantastic event with a number of key messages for us all to think about. The seminar gave us the chance to reflect on how cost and efficiency, health and safety, procedural compliance and the

importance of you – our people – work together and are critical to the aspirations of the company and all of our futures together.

In 2013 we were able to deliver over 2,500 training outputs, with 1,200 of these outputs delivered through in-house training. We continue our commitment to develop our people through programmes such as our apprenticeships and the civil engineering development scheme, which is now in its second year.

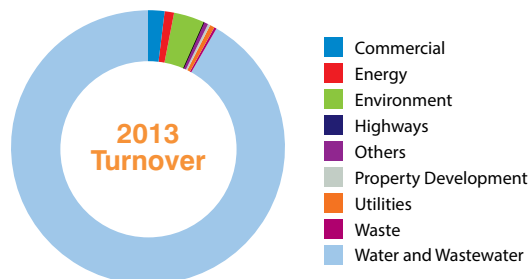
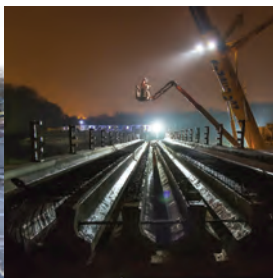
2013 saw the company pick up a number of awards and accolades from across the industry. The ICE, CECA, Yorkshire Water, Northumbrian Water and Business in the Community all recognised our achievements – just reward for everyone's efforts. Many of these successes are featured in the upcoming pages of the Review.

I would like to thank everyone for their involvement and hard work delivering the results we have seen. I hope you enjoy the Review and it makes you feel proud to be part of the company.

**Paul Bentley**  
Managing Director







# Financial Review

**2013 was a year of consolidation and progress. Consolidation through strong delivery on our key frameworks in water and wastewater, building upon our hard earned reputation for collaboration and on time outputs.**

**Progress through the addition of further long term framework arrangements, in particular, with the Environment Agency on a national Water and Environment Management framework, which is already starting to deliver revenue growth and opportunity. In order to facilitate the delivery of this work, we have formed a new joint venture, JBA Bentley, with leading specialist environmental consultancy Jeremy Benn Associates.**

In the fourth year of our water company AMP5 frameworks, we saw consistent activity levels with all of our principal water company partners. In Yorkshire Water, we completed large schemes at Rivelin and Bramley, and within the Severn Trent Water e5 Major Projects Programme a number of large schemes are nearing completion. In the Anglian Water region we completed a 60km pipeline, and we also enjoyed a strong year with Northumbrian Water, delivering works both in the North East and the South East, the latter via our framework with Essex & Suffolk Water.

During the second half of the year, we were awarded a contract with United Utilities to enhance security at their treatment works, setting up co-located offices in Skelmersdale to facilitate this new work, which will be a significant volume driver in 2014.

Outside of the water industry we continue to enjoy a small number of successful relationships, particularly with the Coal Authority, National Grid and Procter & Gamble.

JN Bentley was once again in the fortunate position of being able to be selective in its bidding efforts as a result of enjoying a relatively full order book for the whole year. Whilst there are tentative signs of improvement, the construction sector remains under some strain with insolvency levels remaining above the long run average. We remain committed to sustainable relationships with our clients, suppliers and subcontractors.

I have been fortunate to visit a number of our sites during the year and have been consistently impressed with the levels of commitment and teamwork shown by our site teams, exemplified by their desire to do the best job that they can. I would like to personally thank the teams at Rushmoor, Strongford, Worksop, Oswestry and Blackburn for their collective efforts.

We anticipate that the year-end accounts for 2013 (once verified) will record a turnover of £119 million, which is a broadly similar level of activity to that recorded in 2012. Monthly turnover in 2013 was very consistent, at around £10 million, and this consistency helped with planning, programming and labour and staff utilisation, the benefits of which will be seen in the direct margin performance in the year. Looking forward into 2014, we expect turnover levels to be slightly higher, at around £125 million, with the addition of work via the Environment Agency framework and some recently-won larger schemes.

The year saw the commencement of the AMP6 procurement process for the majority of the UK water sector. It is particularly pleasing to report that JN Bentley has, through its subsidiary, Mott MacDonald Bentley (MMB), secured further long term arrangements with both Yorkshire Water and Severn Trent Water. We remain well placed for further framework awards with other major UK water companies too.

The balance sheet remains strong with no reliance upon external funding. The company continues to invest in the infrastructure of its businesses; these investments included additions to (and renewals of) the plant and equipment fleet, along with a further investment in commercial vehicles, including a number of bespoke welfare vans, which increase our flexibility and reduce costs and environmental impact by reducing the need for welfare cabins on some sites. We are currently evaluating replacements to our core business IT systems to further future proof our delivery capability. We expect the delivery phase to commence in the second half of 2014.

Our Cost & Efficiency Strategy delivered some significant savings in the year and contributed to awareness throughout the company. It remains our core belief that safety and efficiency are mutual objectives, both being fundamental to the sustainable future of the company and the long-term job security of our people.

**Andrew Davies**  
Finance Director

**The nature of our work as a civil engineering and construction company means that we enter new environments and communities every day. We recognise that we have a responsibility to contribute positively to the people and places we work with.**

In 2013 we defined our purpose as **Engineering Sustainable Outcomes**, using four categories or 'strands' to help explain this. We engineer sustainable outcomes for:

- **Our Shareholder** by delivering shareholder value with sustainable returns in order to secure the long-term viability of the company.
- **Our People** by creating a fun workplace where people have a voice, are safe, reach their potential, prosper and where rewards are shared. We are committed to our Health and Safety Strategy and our vision of achieving zero injuries and instances of work related ill health.
- **Our Customers and Community** by safely delivering best value, innovative, sustainable solutions and enhancing the communities in which we work. We continue to use our Cost and Efficiency Strategy to promote initiatives across the business – working to the principle that everything we do adds value. We encourage staff to add value to the communities in which we work by giving skills, time and expertise.
- **Our Environment** by using our expertise to be respectful to our planet and its resources. Our vision is to achieve zero environmental incidents and legal breaches.

**Engineering** is at the core of the service that we provide to our customers.

A **Sustainable Outcome** for us is one that is sustainable economically, environmentally and with respect to our relationships with the shareholder, employees, customers and community.

Being sustainable always means striving to improve. Effort is important, but results are what matter to all our stakeholders. That is why our purpose places the focus on **Outcomes**.

# Company Purpose



# Management Structure

On January 1, 2013, changes to strengthen the company's Group and Operational Boards took effect. These are represented in the organisation chart below. The changes mean that our organisational structure better reflects the geographical diversity of the company's operations and means we are well placed to continue developing in 2014 and beyond.

## Group Board

Rich Field <b>Chairman (NED)</b>	Paul Bentley <b>Managing Director</b>	Andrew Davies <b>Finance Director</b>	Martin Bentley <b>Resources Director</b>	Philip Bentley <b>Development Director</b>	John Ridings <b>NED</b>
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## Operational Board

Andrew Davies <b>Financial Director</b>	Martin Bentley <b>Resources Director</b>	Jamie Fitton <b>Operations Director</b>	David Bentley <b>Commercial Director</b>	Richard Risdon <b>Operations Director</b>	Alastair Binns <b>Commercial Director</b>	John Greenwood <b>Engineering and QES Director</b>	Steve Tetlow <b>Bidding and Strategy Director</b>
<b>Accounts</b> Jon Bester Michael Ball	<b>Ops Resourcing</b> Jonny Fitton Michael Davies	<b>Operations Managers</b> Marcus Foster Colin Nichol				<b>QES</b> Roberto Magagnin	<b>Bidding</b> Ian Bester
<b>HR/Training/Comms/CR</b> Judith Jeffery	<b>Subcontract Buying</b> Boyd Webster	<b>Commercial Managers</b> Ashley Parker Phil Cundill				<b>Engineering</b> Dan Sutcliffe	<b>Estimating</b> Graham Jessop
<b>Information Technology</b> Max Carr	<b>Plant, Fleet and Facilities</b> Kevin Young	<b>North Operations</b>		<b>South Operations</b>			
	<b>Buying</b> Dean Holmes						

In summer 2013, we wished Jon Cain all the best as he left his post as a Director at JN Bentley after nineteen years with the company. Jon was instrumental in the formation of MMB – our successful joint venture with Mott MacDonald Bentley – and drove with passion our health and safety vision to achieve zero injuries and zero instances of work-related ill health. Jon is now training for a career in the Anglican priesthood.



# 2013 at a Glance



**January:** A special breakfast is held at Doncaster Racecourse to thank all of our 2012 Be Recognised winners. The Grafham Resilience Reverse Flow Team is named 'Team Winner', with Contracts Manager, Damian Ireland named 'Individual Winner.' [Read more on Be Recognised on page 23.](#)

A project begins in Coach Sreet Car Park, close to our Skipton Head Office, constructing a new screened overflow chamber to facilitate the flow of excess storm sewerage into a new storm detention tank.



**March:** A number of our projects are successful in regional Institution of Civil Engineers (ICE) and Civil Engineering Contractors Association (CECA) awards: a scheme at Rivelin Water Treatment Works wins the prestigious ICE Centenary Award, and a flood relief scheme at Manor Vale wins the CECA Linda Grant Health and Safety Award.



**February:** Members of our site team visit Bramley Primary School ahead of works constructing a new service reservoir in the town. This project is pioneering our use of BIM (Building Information Modelling). [Read more on BIM on page 20.](#)

**April:** JN Bentley's hard work in developing the engineers of the future is the winner of a prestigious 'Big Tick' at the Business in the Community (BITC) Responsible Business Awards. The scheme also makes the BITC's national shortlist. [Read more on employee development on pages 21-22.](#)



**May:** The ICE in Wales recognises our project to double the capacity of Llanfyllin Sewage Treatment Works by presenting us with the 'Roy Edwards Special Award for Innovation'.

BITC award us a top 'Platinum' rating for our continued work improving environmental management, as part of their annual Environment Index. [Read more on JN Bentley's environmental performance on pages 28-29.](#)





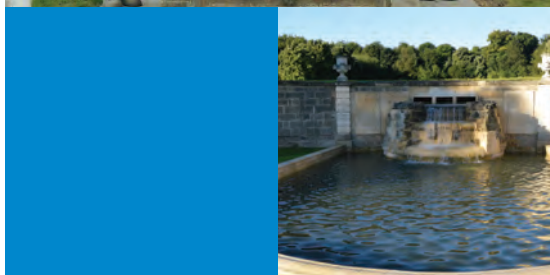
**June:** Our new joint venture company formed with environmental consultants Jeremy Benn Associates – JBA Bentley – is awarded a place on the Environment Agency's national Water and Environmental Management (WEM) framework.

**July:** Mott MacDonald Bentley (MMB – a joint venture between JN Bentley and global consultant Mott MacDonald) is awarded a five-year framework extension with Yorkshire Water, further extending our relationship with this long-standing client.

Our site teams working near Scarborough on the east coast rescue a stranded family who had become cut off from the tide. Their courageous efforts were recognised both internally, by the client and by the coastguard.



**August:** Our team working at Ogden Reservoir in Yorkshire salvage a plaque dating back to 1854, carefully reinstating it close to the entrance to the reservoir for visitors to the popular site to see.



**October:** JN Bentley takes delivery of a Komatsu Hybrid Excavator and revolutionary 'green' Toshiba printer, adding credentials to the company's drive to minimise its environmental impact. The excavator has lower fuel consumption, lower CO<sub>2</sub> emissions and a quieter engine than traditional excavators. The printer uses erasable toner to reduce paper consumption by 80%.

Our team in the Midlands present the British Heart Foundation with a cheque for £3,600 – just one of many examples of the charitable nature of our people. [Read more on page 27.](#)

**September:** The restoration of a stepped cascade at the Bramham Park Estate is completed. The scheme involved the careful restoration of the existing cascade and the installation of a water supply. [Read more on page 19.](#)

Public open days at the company's owned-and-operated hydroelectric power station in the Yorkshire Dales prove as popular as ever, attracting over 250 visitors.



**November:** At the CECA awards in the North East, JN Bentley wins both the Health and Safety and Environmental Company of the Year awards. This is the fifth time in seven years JN Bentley has won Health and Safety Company of the Year, and we continue to strive to achieve our vision of "ZERO injuries and ZERO instances of work related ill health" through positive engagement and continued investment in the health and safety training of our workforce

At the annual Excellence Awards, hosted by Yorkshire Water, awards are clinched in four out of the eight categories. [Read more on our on-going relationships with Yorkshire Water on pages 10-11.](#)

Every JN Bentley employee – plus guests from our joint venture partners and a number of subcontractors and clients – attends the annual company seminar at Doncaster Racecourse. A series of presentations and activities help to communicate examples of best practice, key developments around JN Bentley, and celebrate recent achievements.

## December:

Following a successful first five-years working together, MMB is awarded a five-year framework extension with Severn Trent Water delivering non-infrastructure works in the west of their operating region. [Read more on our works with Severn Trent Water on pages 12-13.](#)

# Operations

**At the heart of JN Bentley – as a civil engineering and construction company – are our operations, which span a number of different clients across a variety of different regions in the UK.**

**We work hard to develop lasting relationships with these clients, delivering projects collaboratively and in a spirit of openness and honesty.**

It is important that JN Bentley maintains its drive to work innovatively and finds increasingly efficient solutions to traditional engineering problems. We always look to work in a way that makes customer operations safer, more efficient and more sustainable – delivering outcomes ‘right first time’ – on programme and within budget.

To keep the workplace safe we are committed to our **Health and Safety Strategy** and our vision of achieving zero injuries and zero instances of work related ill health, working in accordance with our policies, standards and responsibilities.

We use our **Cost and Efficiency Strategy** to promote initiatives that create a culture where our people are passionate about saving costs and increasing our efficiency – working to the principal that everything we do adds value.

In 2013 we have maintained a strong base of long-standing clients, and the changes made to our management structure now better reflects the geographical diversity in our operations, and enables us to better meet the needs of our clients.

The following pages take a look back at our operations on site in 2013.



Works with the Coal Authority have taken us across the UK. Read more on page 18.



**A new JV has been established to deliver a major framework with the Environment Agency. Read more on page 14.**

**Contractor alliancing has aided the design-and-construction of three major schemes at Rushmoor, Strongford and Worksop. Read more on page 12.**



**We have delivered a number of schemes with long-standing client Procter & Gamble in 2013. Read more on page 17.**





Our operations have been recognised for exceptional safety and environmental performance. Read more on page 15.

We've constructed a number of reservoirs in some very scenic Yorkshire locations. Read more on page 10.



We've completed a 61km water pipeline through Lincolnshire. Read more on page 14.



A variety of works with Essex & Suffolk Water have helped us become better established in the South East. Read more on page 16.



# Yorkshire Water



3D printing has regularly made the news in 2013 and we have been using the technology at Sutton to provide our site team with a hands-on model used in morning briefings and planning sessions.



2013 saw great progress made on a number of key projects with Yorkshire Water, delivered through our JV subsidiary company Mott MacDonald Bentley (MMB). Maintaining a focus on innovation to drive improvements in safety and efficiency, we carried out work under four ‘streams’ – reservoirs, sewerage networks, other installations, and large schemes.

In July, MMB was delighted to lengthen its collaborative working relationship with Yorkshire Water through to 2020 when we were awarded a five-year framework extension. The contract will run throughout the AMP6 regulatory period, taking the partnership between MMB and Yorkshire Water past the 20 year mark.

## Investing in service reservoirs

In AMP5 we have worked tirelessly to maximise off-site construction using standard ‘products’ that can then be pieced together on site. We have worked closely with our supply chain to develop the products that make construction more time and cost effective, and yield a higher-quality of finish.

Off-site construction, together with the use of BIM, helped us to build seven pre-cast service reservoirs for Yorkshire Water in 2013, the largest of which was a £3.8 million structure at **Bramley**, near Leeds. Bramley used hundreds of prefabricated standard components, including walls and internal beams.

## Seeing the bigger picture at Sutton

By maintaining a view of the ‘bigger picture’, MMB helped to save £8 million on an upgrade of a waste water treatment works at **Sutton**.

Initial plans deemed a substantial upgrade of the existing works necessary to improve river water quality. We challenged this, proposing that the same outcome could be achieved with a much reduced scope of works if consent requirements at better-performing works upstream were changed. The Regulator looked at the evidence and agreed to the changes, meaning that the significant savings could be achieved.

## Working in scenic locations

Delivering work at Yorkshire Water’s impounding reservoir sites takes us to some spectacular – and often remote – locations across the region, including **Leighton and Gorple Upper Reservoirs** where we have been upgrading existing spillways.

On both sites we conducted thorough tests to prove the viability of innovative, cost-effective solutions that meant the schemes could be completed quicker, without compromising on safety. The results are impressive too – as the photo of the masonry spillway at Leighton shows (on page 11).

## Innovation, innovation, innovation

MMB has a strong history of innovating to drive best quality and value, none more so than our commitment to the use of BIM (Building Information Modelling). 2013 has been an exciting year for BIM and MMB as its use becomes ‘business as usual.’ Read more about BIM on page 20.





Our team working near Malton made a grisly discovery when they unearthed an ancient skeleton in a sewer trench on site. Thought to date back to Roman Britain, the bones were removed to enable them to be examined by experts... but not before we had welcomed down a group of history students from the local college to learn about the findings from the archaeologist on site.



## Rewards for sewerage

In York, our sewerage team was contracted to replace the **Clifton Rising Main**, a 1.3km sewer passing through environmentally-sensitive land parallel to the River Ouse. By engaging early with local stakeholders and statutory bodies, impacts were minimised and ecological challenges overcome. Read more on page 29.

At **Manor Vale**, near the market town of Kirkbymoorside, we were tasked with constructing a new underground storm water storage tank and sewerage pipework in narrow residential streets.

The Yorkshire and Humber branch of CECA recognised our first-class safety record on the scheme – and the 24 letters of praise received – by presenting us with the **Linda Grant Health and Safety Award**.

## MMB rewarded for Excellence

We were lucky enough to contribute to wins in four of the eight categories at the **Yorkshire Water Excellence Awards**. Focusing heavily on teams working collaboratively to deliver projects, MMB was recognised for: making innovations in health and safety; realising significant savings on reservoir works; delivering excellent customer service; and for establishing a successful engagement programme with the community in Bradford.

MMB has surveyed hundreds of Yorkshire Water sites for **'Working at Height'** hazards so that solutions can be implemented to mitigate risks. Rather than using standard paper-based surveys, our teams have completed surveys directly onto tablet devices, preventing the need for further data entry back in the office, eliminating 'copying' errors and significantly reducing the amount of time per survey. Photos taken by the tablet are even automatically embedded into the surveys!



Working closely with the client, we engaged with the community in Bramley by visiting the local school and supporting the not-for-profit Bramley Baths.

Contracts Manager Steve Hutchinson delivered a safety presentation and pupils' entries into a health and safety poster competition were particularly impressive. We attached the winning poster to our fencing on site.

# Severn Trent Water

2013 was our busiest year yet with Severn Trent Water. Through MMB we delivered £50 million worth of work across the Midlands and Wales on a variety of schemes, ranging from constructing new service reservoirs to upgrading sewage treatment works and assisting the client with the adoption of private drains and sewers.



When we secured our first contract with Severn Trent Water in 2009 our aim was to develop a long-term relationship with the client, as we have done previously with the likes of Yorkshire Water. We were therefore delighted to secure a five-year framework extension in late-2013, which will see MMB deliver non-infrastructure works with Severn Trent Water throughout the AMP6 period.

**Our aim was always to build a successful long term relationship with Severn Trent, and this extension recognises the efforts of our team.**

**The AMP6 challenge is an exciting one that MMB is looking forward to meeting as we play our part in delivering essential investment across the region.**

**Richard Risdon, JN Bentley**  
Operations Director

## e5: Rushmoor, Strongford and Worksop

The e5 (efficiency 5) Major Projects Programme is a joint venture formed between four framework contractors and Severn Trent Water to deliver eleven major waste water non-infrastructure projects in the region. Collaborative working and innovation are at the core of delivery to maximise efficiencies that benefit the client and alliance partners alike.

MMB is delivering three of the nine e5 schemes, totalling in-excess of £45 million:

At **Rushmoor Sewage Treatment Works (STW)**, Shropshire's strategic centre for sludge digestion, dewatering and cake storage, we are expanding and upgrading the existing sewage treatment works to cater for demand.

We are constructing a new activated sludge plant (ASP) and replacing existing ASP blowers to ensure new phosphorous consent levels are met at **Strongford STW**, the main sewage treatment works serving Stoke-on-Trent.

Our scheme at **Worksop STW** involves the construction of a sludge processing facility with access roads and canal and river crossings. You can see the work being carried out in the impressive photo on the cover of the Review.

## Making strides with BIM >

Our team in the Midlands is using BIM in the construction of a new service reservoir at **Oswestry**. Impressive 3D modelling has aided construction at **Minworth Sewage Treatment Works** too, where three new CHP (combined heat and power) units will improve the efficient generation of renewable energy for our client. Read more on page 20.





## Hitting our deadlines

We have made excellent progress constructing a new water treatment plant to improve nitrate levels near **Lilleshall**, meeting a challenging deadline to ensure the new structure was water-tight. Our team was commended by the Considerate Constructors Scheme after they assisted archaeologists who were carrying out a dig on site (the site is partially located over an English Heritage-protected Roman military installation).

We were tasked by the client to deliver a nitrate blending scheme at **Cosford**. Spread across four remote sites, MMB installed deep pipework, a static mixer and various valves and connections to enable high nitrate water to be blended, negating the need for a new nitrate removal facility.

The scheme also demonstrated the benefits of joining forces with another framework partner, enabling the works to be completed by the compliance date in true collaborative style.

## Private drains and sewers: assisting our client

The **Private Drains and Sewers (PDaS)** legislation will transfer the ownership of all private pumping stations that serve two or more properties to local water companies in 2016, who will then be responsible for their maintenance and upkeep.

MMB was initially tasked with delivering a pilot scheme, studying and delivering civil engineering improvements at 55 sites, in areas of restricted access, on

customers' land, in highways and in confined spaces, dealing with electrical equipment of a poor standard.

Developing innovations, such as a tablet computer app to undertake surveys and a new telemetry panel to replace outdated electrical control equipment, has made delivery more efficient, and ensured that impact on Severn Trent Water's customers has been kept to a minimum.

Feedback from customers has been very favourable, and contributed to MMB securing a further £3 million of PDaS work for delivery in 2014.

# Anglian Water

2013 brought to a close the construction of the Covenham to Boston Pipeline, a 61km polyethylene pipeline running across Lincolnshire. The pipeline will supply a forecasted population in excess of 100,000, and is capable of transferring over 15 million litres of water from Covenham Water Treatment Works to Miningsby Reservoir in central Lincolnshire, and then on to the town of Boston.

Modifications have also been completed to allow a further 11.4 million litres to be transferred through existing infrastructure.

Collaborative team working between all parties on the scheme led to a 57% reduction in embodied carbon and a 30% capital cost saving. This contributed to the project team achieving a 'CEEQUAL Interim Award' for design and construction, achieving an 'Excellent' score of 95.4%.

*CEEQUAL is an independent, evidence-based sustainability scheme for civil engineering projects, recognising and certifying high environmental and social performance from design through to construction.*

The development of a scheme required to provide resilience to Grafham Water Treatment Works, which supplies 250,000 homes, continued in 2013. The project is due to commence on site in 2014 with modifications and enhancements made to the existing distribution system.

Both projects are being delivered as part of Anglian Water's Special Projects framework. The six partners appointed to the framework deliver large, one-off capital investment projects in an environment that harbours collaborative working and ideas sharing.

## The Environment Agency

JBA Bentley is a joint venture between JN Bentley and environmental and water engineering consultancy Jeremy Benn Associates (JBA).

In 2013, the JBA Bentley subsidiary was successful in securing a place on the Environment Agency's Water and Environmental Management (WEM) Framework.

This framework will last for four years, with the potential for a further two year extension.

The framework covers a wide range of environmental and flood management services including environmental work, modelling, mapping, emergency planning, feasibility, detailed design and construction. To date we have been awarded a number of early contractor involvement (ECI) contracts and been engaged in emergency works following December 2013's storm surge on the east coast of the UK.

JBA

**Bentley**

Our first design and construct scheme with the Agency, improving culverts at three sites in the North West, will begin on site in 2014.



The site team worked exceptionally hard to complete the scheme in 2013, reinstating the highly productive and profitable arable land through which the pipeline runs at a rate of over 500m every day.



# Northumbrian Water

We first partnered with Northumbrian Water back in 2001 and have since become firmly established in the North East. In 2013 we delivered schemes with Northumbrian Water on both clean and waste water sites, as well as water and sewer networks, from our offices situated in Durham – enjoying many successes along the way.



## Beating the clock at Knitsley

The sewage treatment works at **Knitsley** required refurbishment to ensure it continued to meet regulatory compliance levels. In order to address the operational requirements, we upgraded a number of elements of the existing works, including three 23m diameter biological filters.

Benefitting from close collaboration with the client and their operational staff – together with good teamwork – the project was completed early and ahead of budget

The team was named our 'Be Recognised' winner for October 2013. Read more on page 23.

## "Spot on" schemes

One focus for our works with Northumbrian Water is an abandonment programme where we reduce the risk and liability to NWL on abandoned sites. In some circumstances sites are decommissioned and left in a condition which elevates their development potential, making them more attractive sale propositions.

After being tasked with the design of the abandonment at **Throckley** for example, Northumbrian Water approved our plans and gave us the go ahead to deliver the works on site.

A similar scheme at **Mitford**, where we had to manage the safe removal of four tonnes of asbestos, won a Going the Extra Mile (GEM)

Award with Northumbrian Water, in the Environmental Sustainability category. The project was described as "spot on!" by the client's Project Manager, Simon Cossar.

## Making improvements across the region

Complementing larger schemes, such as the project at Knitsley, are a series of **sub-programmes** that we deliver with Northumbrian Water. These regularly involve visiting a large number of sites and surveying assets before providing solutions that will improve the site, making them safer or more efficient.

We work closely with Northumbrian Water's Operatives during this type of work, and our experience has helped us streamline the process.

**Award successes serve to reinforce and recognise the good work our teams are doing and give our people chance to celebrate their hard work. The North East secured another impressive haul in 2013. Together with the GEM Award won at Mitford, our Water Pumping Station Delivery Team was runner-up in the Team of the Year category, where communication was highlighted by the client as being particularly effective.**

We celebrated double success in the CECA North East Awards, scooping both the Health and Safety and Environmental Company of the Year prizes. This is the fifth time in seven years JN Bentley has won Health and Safety Company of the Year, but we recognise that there is still work to be done as we drive towards our target of zero injuries.

You can read more on both health and safety and environmental stewardship later in the Review.



JN Bentley's regional coverage continues to diversify, as the works being delivered for these clients exemplify.

## Water and Utilities

In 2013, JN Bentley moved into new premises in Skelmersdale, Lancashire, to service contract delivery in the west of the country. This included a sewerage scheme for **United Utilities** in **Blackburn**.



In Blackburn, the existing CSO roof had to be cut into 75 sections, each weighing no more than 10 tonnes, to allow it to be removed safely.

To improve the quality of water being discharged from an existing combined sewer overflow (CSO) chamber, we significantly increased the capacity of the chamber by adding an additional channel, and replaced existing screens. Confronted with a particularly tight site, bound by residential properties, a psychiatric hospital and a river, our team deployed a carefully planned delivery sequence to ensure the works were completed without incident.

We were also successful in securing a contract with **United Utilities** carrying out security enhancement to their treatment works. Here we have been designing, installing and commissioning electronic and physical security at a range of sites across the client's operating region in the north west of the UK.

In 2013 we continued to work with **Essex & Suffolk Water**, co-locating on the same site in Hanningfield, near Chelmsford.

Our team, made up primarily of JN Bentley people recruited from the South

East region, have worked on a variety of construction and engineering schemes, including programmes to improve safety and security on **Essex & Suffolk Water's** assets; electrical upgrades and replacements; highways reinstatement; pumping station refurbishments; and flowmeter installations

Near Colchester, we were tasked with replacing a band screen and upgrading a river intake structure to meet requirements of the **Eels Regulations 2009**. Working through the summer when river levels were their lowest, the project brought together a range of disciplines, including deep excavations, crane lifts, coffer dam construction and mechanical, electrical and civil engineering.

The new band screen ensures that when water is extracted from the river to serve the nearby water treatment works, eels are safely filtered out and returned to the watercourse.

Our first project with **Dŵr Cymru Welsh Water** began in 2013 after joint venture subsidiary MMB won a place on their select list of hydroelectric plant construction partners. A project to install a turbine on the inlet at **Ystradfellte Water Treatment Works** in South Wales will be complete in 2014.

Construction on site has continued with **National Grid**, under their Minor Civils Framework. A programme of works constructing boundary walls, fencing, security and safety works on **National Grid** property took us to sites across the country in 2013.







# Commercial and Industrial Building and Highways

JN Bentley has maintained its presence in the commercial and industrial building sector through a long-standing relationship with 'blue chip' client **Procter & Gamble (P&G)**.

2013 was a productive year for the partnership on P&G's site in London – a busy 24/7 'live' operational site.

First, we constructed a new 76-space car park and express way before beginning an eye-catching project constructing a 300m-long elevated enclosure that has been erected 5m off the ground to allow trucks to park below.

Once completed, two conveyors will be installed within the enclosure to transport pallets of finished products across the site.

After completing foundations and piling works, each section of the structure was built in a secure compound, before being delivered 5km and lifted into place on site. The scheme is set for completion in early 2014.

A highways framework with **Cumbria County Council** yielded its first scheme in 2013 when we replaced a coastal defence wall with rock armour to form permanent defence against erosion.

# The Coal Authority



2013 was a busy year for our teams working with the Coal Authority on their 'ENVision II' framework. Both parties are reaping the benefits of building a long-term collaborative relationship as teams and their knowledge move from one scheme to the next, ensuring continuous improvement.

Covering a wide geographical area, from South Wales to Scotland, the Lake District to the East Coast, JN Bentley provides the Coal Authority with Early Contractor Involvement (ECI) and design and construction services centred on mine water treatment schemes and sludge drying beds at both coal and metal mining sites.

## Mine water treatment schemes

Mine water treatment schemes deal with mine water contaminated with iron ochre and other mined metals. Lined settlement lagoons, reed beds, sludge drying beds and pre-cast concrete channels, outlets and inlets are used to treat the water before it is allowed to re-join natural watercourses.

At **Saltburn** and **Ellington**, former mines situated in Yorkshire and Northumberland, we have utilised the same team to deliver both projects, providing continuity for both our site teams and our client. Following the completion of the works at Saltburn, the scheme was commissioned and we look forward to returning in the Spring of 2014 to double the size of the current scheme.

At Ellington, the mine water treatment scheme constructed is similar to that at Saltburn, although it also included the construction of a 400m rising main running from the existing mine shaft to the new works. Now complete, this phase of works will also be put into operation for a testing period to confirm the size of the final scheme to be constructed.

Preparatory works to install drainage at **Craig Yr Aber** saw us venture into South Wales with The Coal Authority for the first time on a major scheme. The new drainage we installed will enable a full mine water treatment scheme to be built on site in 2014.

## Non-coal works – a new path

We began working at a number of non-coal mines with the Authority in 2013 too. A pilot scheme at the incredibly scenic **Force Crag** in the Lake District will treat flows running into nearly becks and the downstream Bassenthwaite Lake by reducing metal loadings in the flow. Drainage was installed in early 2013 and Phase 2, the construction of vertical flow ponds and a wetland, will get underway in 2014.

At Carrshield in Northern England, adit repairs at **Barneycraig** and trial stabilisation works at **West Allen** yielded praise from the client, local villagers, and the 'North Pennines Area Of Outstanding Beauty Partnership', who said that they "found the contractors friendly, polite and considerate and that the site was kept clean and tidy, despite difficult weather and site conditions."

We assisted the Coal Authority at **Polkemmet** in Scotland when a mine water treatment scheme had to be made operational at very short notice. The team pulled together and their combined efforts delivered a result that exceeded our client's expectations.

**I would like to congratulate the project team...there has been some great team working across organisations and internal teams. Well done. I don't know how you have achieved it in the time scale.**

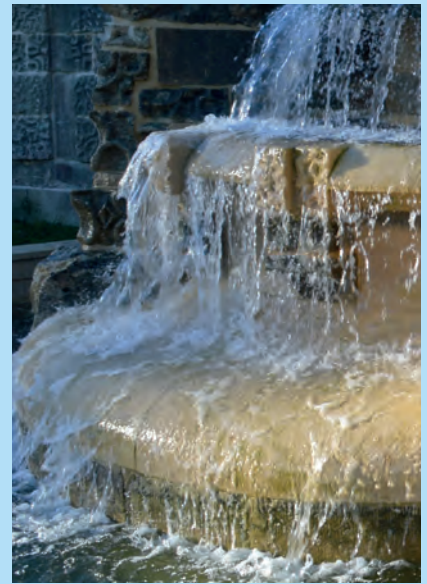
**Tracey Davies, Coal Authority  
Head of Environment**





# Bramham Park

JN Bentley has a history of working at some very prestigious locations, including Fountains Abbey, Blenheim Palace and Studley Royal. 2013 continued this tradition when JN Bentley completed its second scheme at the Bramham Park Estate in West Yorkshire.



The Bramham Park Estate is home to a large Grade 1 listed landscape on the English Heritage register of parks and gardens, and every year hosts the famous Horse Trials and Leeds Music Festival.

In 2013 we worked with architects and skilled stone masons to sympathetically restore a stepped-cascade into the parterre pond, which is situated right in front of the main house.

Upon completion of the scheme, owner Nick Lane paid tribute to Mark Dolphin and his team when he commented,

**“Thank you so much for all of your hard work over this year on the cascade and indeed last year on the T-pond too. Your team has been an absolute pleasure to work with throughout both of these projects.”**



# BIM (Building Information Modelling)

Driven by the Government and aided by developments in computing, BIM is a development in the construction industry that provides a more efficient way of designing, constructing and maintaining assets. BIM is all about people using a coordinated approach for developing, managing and sharing information throughout the whole lifecycle of a project, from initial concept through to operation. It offers the potential for substantial efficiencies in the flow of information between different project stages and stakeholders.



We have embraced BIM and have established a BIM Working Group to capture and share best practice as it is developed. As a company we have developed expertise in 3D modelling over a number of years – a key enabler of BIM. 2013 was an exciting time as we utilised the new technology, techniques and processes on a range of schemes across our operating regions. Here are a few highlights.

## Bramley Service Reservoir

The team behind the Bramley scheme aimed to run a 'paperless' site from day one, fully embracing BIM.

Tasked with constructing a new service reservoir with a capacity of 16Ml of water, as well as demolishing two existing reservoirs in poor condition, the project has demonstrated how easily information from the BIM model can be used on site, and has made information exchange between site and office much more efficient.

Staff on site have used tablet computers and, despite not quite having shifted to a 100% 'paperless' site yet, Bramley has still become something of a flagship scheme when it comes to embedding BIM into our culture.

## Oswestry Service Reservoir

MMB has made great progress on a tight site at Oswestry constructing a 4Ml service reservoir. BIM has enabled the Site Manager to explain the scheme to the Operatives using a dynamic 3D model rather than numerous detailed drawings. It has also helped us engage key client stakeholders, ensuring they were involved in the design process and therefore feel ownership for the finished product.

## Covenham to Boston Pipeline

Using BIM on this 61km cross-country pipeline improved safety by employing clash detection features and provided the client with a detailed as-built model of the system.

The model was used for direct collaboration between not only partners but suppliers too.

## Cambois Sewage Treatment Works Refurbishment

3D modelling has enabled operatives on site to visualise the sequencing of the construction process, particularly important at Cambois because the inlet works will remain in operation throughout our works. The model has also highlighted potential pipework clashes at the design stage and enabled the design team to model different temporary and permanent access solutions which would have been tricky to visualise in 2D given the organic shape of the inlet works structure.

Our scheme at **Rivelin Water Treatment Works**, designing, constructing and commissioning six manganese contactor filters housed within a timber-clad building, utilised BIM and was awarded the prestigious **ICE Yorkshire and Humber Centenary Award in 2013**.



# Our People

At JN Bentley we are committed to creating a fun workplace, where people have a voice, are safe, reach their potential, prosper, and where rewards are shared. 2013 has seen us focus on a broad spectrum of activities for 'Our People' through initiatives aimed at improved communication, health, safety and wellbeing, training and development and employee recognition.

## Developing the Engineers of the Future

As a company we recognise the importance of building and maintaining a happy and skilled workforce to ensure we are able to readily resource schemes with talented people who can deliver works of a high quality.

During 2013 we invested over £1.4 million in training; this constitutes over 28,000 hours spent on training courses throughout the year.

We utilise our own **ConstructionSkills-accredited Training Centre at Head Office in Skipton** to deliver a significant quantity of this training, from our apprenticeships to QCFs to CITB Site Safety Plus courses. In fact 2013 saw the introduction of five new in-house training courses delivered through our own facilities.

£1.4m  
invested in  
training



248  
Working at  
Height courses  
completed

28,000  
hours spent  
on training  
courses



Over 200  
Confined  
Space Entry  
courses held



Nearly  
200  
CSCS Cards  
applied for

350  
Health and  
Safety Tests  
completed



15  
new employees enrolled on  
our Engineering Development  
Programme

27 employees working  
towards a variety of Further and  
Higher Education qualifications

16  
employees working towards  
professional  
chartership with  
a variety of  
professional  
bodies such as  
the Institution of  
Civil Engineers  
(ICE) and the  
Institution of  
Engineering and  
Technology (IET).



All 9 of our construction  
apprentices successfully  
'graduated' and achieved their  
Diploma in Construction



## Our People...

Our **apprenticeship scheme** has more than doubled its intake since first being launched in 2010. All nine of our apprentices, who were welcomed into the company in 2012, achieved their Diploma in Construction in 2013. The scheme is designed 100% in-house which means that the apprentices have not only been working towards professional qualifications but have obtained additional experience and competencies specific to the work and culture of JN Bentley too.

To develop skills such as joinery, bricklaying and concreting, our apprentices spend time on sites across our operating regions as well as at the Training Centre in Skipton. We link closely with Craven College to ensure the scheme is of a nationally-recognised standard.

We have **supported more students** than ever before in 2013. As well as our links with pupils in primary and secondary education, where we look to open their eyes to the world of engineering and the many other careers the sector encompasses, we welcomed our annual intake of undergraduate placement students.



The current crop of **placement students** comprises young people studying at universities across the UK. Having all opted for a 'year in industry' following the completion of their second year at university, the new employees will spend up to fifteen months working full-time on one of our construction sites or in the office, as civil engineers, mechanical and

## JN Bentley wins a 'Big Tick' for its approach to workplace talent and skills

In June we were presented with a 'Big Tick' award and made it onto the national shortlist of just five in the prestigious Business in the Community (BITC) Responsible Business Awards, held at the Royal Albert Hall in central London.

The judges were impressed with how we engage with schools and universities to help maintain a stream of talented young people into the business, and commit to investing in training our people to help address the skills gaps in the construction sector and ensure they develop to reach their potential.



electrical engineers, quantity surveyors and a range of business-related roles (including communications, buying, plant control, HR, and training).

Those placement students who demonstrate exceptional performance during their time with us are **sponsored** through their final year in university and welcomed back as permanent employees upon graduation.

**We aim to turn at least 25% of our placements into future graduate employees. The company is currently sponsoring ten (of a total of nineteen) students who worked with JN Bentley on placement in 2012/13, all of whom will hopefully return to work for us permanently when they graduate next summer.**

**Judith Jeffery, JN Bentley HR, Training, Communications & CR Manager**

Two students set to return in 2014, Emily Oram and Harry Linton, first joined us through the **ConstructionSkills Inspire Scholarship Scheme**, another initiative that JN Bentley is involved with.

Our own **Civil Engineering Development Scheme** continued to progress in 2013. Open to all engineers on their journey to becoming professional Site Managers, the programme lasts up to five years and supports employee career development through experience and training. There are opportunities to gain experience in various roles around the business so that participants gain a breadth of knowledge and understanding too.

**As well as encouraging continual professional development, the programme goes hand-in-hand with the Institution of Civil Engineers' (ICE) development objectives, enabling a professional qualification to be gained at the same time.**

Trainee engineers are assigned a Mentor and Supervising Engineer, and also benefit day-in, day-out from a great network of people around the business. Equivalent development courses for Mechanical and Electrical Engineers and Quantity Surveyors will be launched in 2014.

Professional development isn't restricted to the development schemes, however. 27 employees are working towards a variety of **further and higher education qualifications** in disciplines such as civil engineering, construction management, accountancy and supply chain management.

## Be Heard

Our employee consultation forum 'Be Heard' continued to provide us with valuable feedback and suggestions in 2013. The forum gives elected employees the opportunity to be involved in shaping some of the company's decisions and represents all employees, meeting every few months for consultation.



>  
Individual winner:  
**Jon Lutman**



Team runners-up:  
**Kevin Wiseman**  
v and **Barry Young**



<  
Individual  
runner-up:  
**Matt Burgin**



<  
Team winners:  
**Wheatcroft  
Outfall**

## Recognising and Rewarding Our Employees

Our 'Be Recognised' reward scheme continues to recognise individuals and teams from across the company for 'living' the JN Bentley values. In 2013, Managers and Directors made nominations each month for employees, suppliers and subcontractors who have

- delivered first-class schemes for our clients,
- helped create a happy and safe workplace for our people,
- added value and left a positive legacy for – and built relationships with – our customers and community, and
- used their expertise to be respectful to our environment.

**Over 100 nominations were made in 2013, with every nominee receiving a thank you letter from Managing Director Paul Bentley for their hard work and efforts. All monthly individual and team winners were then presented with a prize to the value of £75.**

At November's company seminar we took the monthly winners and gave all employees the opportunity to vote for their overall individual and team winners for the first time. Employee voting is a theme we will continue in 2014: all employees will now be able to directly nominate and then vote for their winners each month.

### 2013 Individual Winner

**Jon Lutman** won a prize to the value of £2,500 for his willingness to challenge proposed methodology to reduce the cost of temporary works on one of our construction sites.

In doing this the level of safety improved, the design and construction process was simplified, and costs were reduced. Runner-up Matt Burgin received a prize to the value of £750.

### 2013 Team Winner

Our site team working on the **Wheatcroft Outfall** near Scarborough won a prize of £750 for putting their health and safety training into practice to carry-out the rescue of a family stranded by the tide. The team was praised by the client and the coastguard for their quick thinking and proactive approach to dealing with this potentially dangerous situation. Runners-up Kevin Wiseman and Barry Young received a prize of £750 to spend on a team reward.

### 2013 Be Recognised Winners

Individual Winners	Team Winners
Paul Towers (Foreman)	Covenham to Boston Team
Matt Burgin (Site Manager)	Rushmoor Site Team
Christina Gwynn (QS)	HR & Training Team
Harry Linton (QS)	DG5 and Other Causes Site Team
Chris Hyde (Project Leader)	Strongford Site Team
Jon Lutman (Plant Operative)	Polkemmet Site Team
Graeme Carruthers (Contracts Manager)	Ogden Site Team
Wayne Hadley (Foreman)	Wheatcroft Site Team
Jack Couley (QS)	ORCA Enabling Works Site Team
Gavin Corban (Engineer)	Kevin Wiseman and Barry Young
	Knitsley STW Site Team



**“Our health and safety vision is to achieve ZERO injuries and ZERO instances of work-related ill health.”**

# Health and Safety

**2013 was another exceptional year in the development of a world class health and safety culture at JN Bentley. Reporting has risen for the tenth consecutive year and we have had more people across the business reporting than ever before – including the greatest ever proportion from site workers and subcontractors.**

The number of serious ‘near misses’ reduced to its lowest ever level, and our Reportable Injury Frequency Rate (AFR – the industry standard measure of health and safety performance) of 0.14 is excellent for construction. For four years in a row we have maintained an AFR that ranks better than London’s 2012 Olympic build – a project enormous in scale and heralded for its exemplary health and safety performance.

Despite this, we know that we haven’t cracked it yet and we will not be complacent. We suffered fourteen medical treatment or lost time injuries, three of which were reportable to the HSE. We won’t relent on our efforts; in 2014 we will work to keep the workforce engaged and get everyone **actively involved** and taking **personal responsibility** for health and safety.

Our QES Team spent a significant amount of time on site in 2013, providing support and guidance to our teams in the field. Over 400 **QES inspections** were conducted, supported by Contracts Managers. Peer-to-peer safety monitoring, in the form of **Behavioural Discussions**, improved too: over 6,000 unsafe acts were challenged and, most reassuringly, over 8,000 positive behaviours reinforced.

Year	Hours Worked	Near Misses		First Aid Injuries	Medical Treatment/Lost Time Injuries (<3 days)	RIDDOR Reportable
		Unsafe Acts Unsafe Conditions	High Potential			
2009	1,849,346	2,047	123	126	25	8
2010	1,868,473	2,287	101	83	16	2
2011	2,030,180	3,140	92	73	17	0
2012	2,237,691	4,550	75	98	9	1
2013	2,120,650	7,475	23	94	8	3

Additionally, new style **E-S-O Events** (Engineering Sustainable Outcomes) were attended by nearly one quarter of the entire workforce. These sessions are attended by a Director who fields employee questions.

Our **Safety and Environment Steering Group** is tasked with developing and leading different initiatives. The group delivered on a number of objectives in 2013 including Leadership Training for all first-line supervisors and improved engagement with subcontractors and suppliers, something evidenced through increased levels of reporting from our supply chain. Environmental reporting increased significantly too. Read more on pages 28-29.

It is always pleasing when external bodies recognise outstanding safety performance. In 2013, CECA North East named us **Health and Safety Company of the Year** for the fifth time in seven years, which is testament to our drive to continually improve.

The Manor Vale Flood Relief Scheme won the **CECA Yorkshire and Humber Linda Grant Health and Safety Award** and our innovative use of tablets computers and positive approach to collaborating with the client, partners and subcontractors was recognised by Yorkshire Water when we were presented with the **Innovation in Health and Safety Award**.



# Our Community



## Skills, Time and Expertise

As a civil engineering and construction company, our work takes us into new environments and communities every day. The business and the people we employ have a responsibility to contribute positively to the people and places we work with. We are committed to maintaining good relationships with our local communities and aim to leave behind a positive legacy once works are complete.

We support and add value to our local communities through the provision of our **skills, time and expertise**. We establish partnerships with local schools, opening up opportunities for professional development and mentoring roles; provide all employees with an annual volunteering allowance; and support the efforts of employees outside work by matching their fundraising efforts.

## Partnerships with Schools

We have linked with a variety of schools across our operating regions in 2013. We have maintained our tie with engineering specialist school, Skipton Girls' High School, where civil engineers Gemma Pickles and Gohir Rashid

**mentored pupils studying for their A-levels in Engineering.** JN Bentley volunteers also supported the school during their 'Water Week' – an initiative that promotes water conservation and the work of the WaterAid charity.

The school provided valuable support for our entry into the Business in the Community Responsible Business Awards, where JN Bentley made the national shortlist for its commitment to **developing the engineers of the future.**

"The engineers our girls have worked with have been instrumental in inspiring some of our students to go into the field of engineering. This has got to be good news for engineering and the country as a whole."

Rod Dyson,  
Assistant Head Teacher, SGHS

A number of our employees have been involved in the **Engineering Education Scheme (EES)**, supporting students studying STEM subjects at A-level. Our mentors work with students to develop their skills in project management, team working, problem solving and communication.

The scheme promotes careers in engineering, and provides personal development for our staff as well as support and 'real life' project experience for the students.

In 2013 we partnered with St Leonard's Catholic School in Durham, and Thomas Telford and Wednesford High Schools in the Midlands.

## Linton Falls Hydroelectric Power Station

JN Bentley refurbished a derelict hydroelectric power station in the Yorkshire Dales National Park in 2011, bringing the site 'back to life' as a fully-operational power station. Now, as owners and operators of the site, we regularly open its doors to local schools, providing the opportunity for educational visits. The guided school tours allow students to learn about renewable energy, the technology involved in hydroelectricity, environmental considerations and the history of the power station and the local area.

School visits were held in March and May with pupils from Gargrave School,

Dacre Braithwaite Primary School and Embassy Primary School visiting the power station.

We hosted public open days at the site too, coinciding with the Festival of British Archaeology and English



Heritage's Heritage Open Days. The three days saw over 250 members of the public pass through the doors of the power station, all keen to see the internal workings of the structure and view the technology close-up.



## Bentley in the Community

Many of our employees regularly provide their skills, time and expertise to support a variety of community projects, enabling them to 'give a bit back' and build positive relationships with local stakeholders.

Volunteers from our Shifnal office – which is co-located with client Severn Trent Water and fellow contract partners Enterprise and AECOM Hyder – joined forces to renovate a local youth club. The **One Supply Chain West Community Group** and an army of volunteers from the office came together to provide the building with much needed repairs,

including the installation of proper wheelchair access and a fresh coat of paint. Many materials were donated by local businesses to support the project.

Employees from our North East office continued their partnership with Northumbrian Water and the **'Just an Hour'** programme by working on a project to transform an old priest house into respite for carers. Volunteers Gemma Plaskett and Dave Ridley also joined the client and other construction partners to help build natural erosion barriers at the **RSPB's St Aidan's Nature Reserve**.

The natural willow panels will help to prevent wave generated erosion of the river banks, providing environmental sustainability to the environment.

Employees from Head Office in Skipton got involved at **Sandylands Sports Centre** – a registered charity and facility used by many of the staff – to support a maintenance day. The team spent time carrying out general refurbishment activities to give the popular centre a new lease of life.



## On site: Moor praise for our team in Bradford

Bradford Moor is a particularly densely populated area of Bradford, comprising 2,500 homes and 10,000 residents. It suffers regularly from flooding incidents – which is why we were called in to carry out repairs to alleviate this risk in the future.

It was crucial our team built a good rapport with the local people because our works required us to have access onto

their property. Following initial research to identify key stakeholders, we held a drop-in session, attended neighbourhood forums and worked with schools, community centres, mosques, councils and local businesses. Communications were also issued in Urdu, including a slot on the local radio station, which helped us engage with the multi-cultural community.

**The project was registered with the Considerate Constructors Scheme (CCS), and scored an impressive 35 out of 40.**

The CCS monitor praised the team's approach to community engagement, acknowledging the "major logistics operations carried out well before any of the works began."

## On site: Coastal heroes

Our site team delivering repairs to a long sea outfall on the East Coast were involved in the heroic rescue of a stranded family of four.

The team responded to calls for help from the family who had become marooned at sea whilst in the bay. The team immediately put in a 999 call, but after carefully assessing the conditions, put their health and safety training into practice and made the decision to wade

chest deep into the lagoon themselves. Already equipped with life jackets for working on site, the team created a chain to guide the family safely back to shore one-by-one.

The team have since received praise from our client and the HM Coastguard, and have been recognised internally by the company in our Be Recognised awards. Read more on page 23.

**“Those cut off attempted to reach safety and would have been likely to get into difficulties unless your team intervened before the arrival of the coastguard team or lifeboat. It was brave action to take.”**

**Mike Bill, Coastal Safety Manager for the East of England**



## Giving and Fundraising

We have continued to promote our 'Be Fundraisers' company matching initiative throughout the year – this scheme allows employees to request up to £100 to match their fundraising for taking part in a variety of activities.



Name	Activity	Charity
Jon Bester, Emma Jackson and Gemma Pickles	Keighley 'BigK' 10k	Sue Ryder, Manorlands Hospice
Jonny Fitton	Leeds Half Marathon	Sue Ryder, Manorlands Hospice
Nick Rhymes	Coast2Coast and London to Paris Cycle Rides	Cancer Research
John Hughes	24hr sponsored 'Batathon'	Cumbria Women's Cricket Club
Ronnie Bray	Blackpool Marathon	Sue Ryder, Manorlands Hospice
Alastair Binns	105km Cycle Ride	Yorkshire Cancer Research
John Greenwood	100km Trail Race	Yorkshire Air Ambulance
Rob Dunn	Yorkshire Marathon	Sue Ryder, Manorlands Hospice
Jonathan Mitson and Lee Galloway	Coast2Coast Cycle Ride	Butterwick Hospice
Richard Grayshon, Jamie Boswell, Peter Brodie and Colin Watts	Great North Run	WaterAid
Mike Lewis	Charity Cycle	British Heart Foundation
Trudie Thomas	Charity Cycle	British Heart Foundation
Gavin Ellis and Dean Hart	Parachute Jump	British Heart Foundation
Tony Laverick	Charity Acoustic Night	Cancer Research
Nathan Hutchison	Coast2Coast Cycle Ride	Airedale NHS Foundation Trust
Phil Holden, Neil Armstrong and Matt Athersmith	Leeds 10k Corporate Challenge	Martin House Children's Hospice
Phil Holden	Leeds Half Marathon	Brain Tumour Research and Support Across Yorkshire
Richard Rollison	Coast2Coast Cycle Ride	The Children's Air Ambulance
Luke Waterhouse	100mile London Cycle Ride	Leukaemia and Lymphoma Research
Daniel Oliver	Movember	Bradford Cancer Support

We continue to support the **WaterAid** charity, through a variety of sponsored events. During 2013 we donated over £32,000 to the charity and supported 'Water Week' at the local Skipton Girls' High School, which promotes water conservation and WaterAid's activities. We have raised an additional £2,772 for WaterAid through our company laptop renewal scheme where we provide employees with the opportunity to buy back their old laptop for a reduced price. This incentive is popular

with employees and helps us to reduce electronic waste too. We will continue to work hard to support the charity in 2014.

Charity and community groups across the business have helped to raise thousands of pounds in 2013. **Skipton** has focused its fundraising efforts on the local Sue Ryder Manorlands Hospice and, through events such as a summer coffee morning, raised £4,000.

**Durham** have been busy too, donating

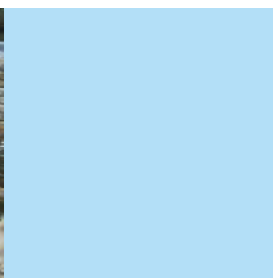
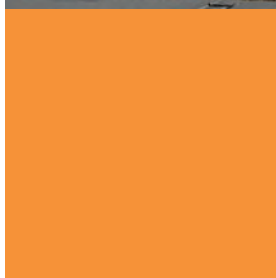
money to the likes of Save the Children, the Butterwick Hospice and the Stroke Association. The **One Supply Chain West Community Group**, based in Shifnal, held a variety of fundraising events – including a charity ball – to raise money for worthy causes, including their 'charity of the year', the British Heart Foundation. In the summer the group presented the British Heart Foundation with a cheque for over £3,500, taking their total raised since 2009 to in-excess of £23,000.

Activity		2013 (£)
Charitable Donations (including philanthropic giving, sponsorship of events, gifts in kind etc.)	Company Donations (WaterAid)	£32,650
	Company Donations (Other)	£1,913
	Employee Donations (WaterAid)	£2,772
	Employee Donations (Other)	£4,687
Fundraising	Employee Fundraising	£3,448
	Company Matching	£2,587

# Environment



**As engineers, our operations have a direct impact on the environment so it is important that we use our expertise to minimise this impact and be respectful to our planet and its resources.**



We monitor carbon emissions and procure sustainably, considering factors such as supplier locality when making purchases. We follow the waste hierarchy when disposing of materials and divert as much waste as possible from landfill. We continue to communicate to employees the importance of environmental management and promote the importance of environmental incident reporting – which will be vital in us achieving our vision.

Key environmental issues are reviewed on a regular basis by our in-house Quality, Environment and Safety (QES) Team and discussed at monthly Board meetings too.

## Pollution Prevention

In 2013 we doubled the number of environmental incidents corrected and then reported by employees and subcontractors – to 1,207 (from 563 in 2012). Not only has the number of reports improved, the breadth, quality and accuracy of reporting has improved too, with more reports than ever originating from Operatives on site.

This improvement demonstrates an ever-improving awareness of environmental issues on site and around our offices, and provides us with valuable data that we use to prevent incidents from occurring in the future.

**JN Bentley achieved the top 'platinum' status in the 2013 Business in the Community 'Environment Index', scoring 97%.**

The score places us alongside the very top performing companies in the UK, and marks four consecutive years of improvement in the survey. The Index itself helps us to evaluate our performance, identify areas for improvement, and benchmark progress both internally and against our peers. We were also named **Environmental Company of the Year 2013** by the North East branch of CECA.

## Fuel and Energy Use

Tonnes of CO<sub>2</sub>e per £100,000 turnover increased from 5.28 in 2012 to 6.50 in 2013

(this still remains lower than levels in 2011, however).

The reason for the increase is due largely to a significant increase in the use of gas oil, which itself is dictated by work mix – gas oil powers a lot of our machinery on site. Efforts to source the latest, most efficient plant (including a hybrid excavator) will help to improve performance going forward.

The company car fleet remains one of the 'greenest' in the UK, with increasingly strict minimum expectations for fuel consumption.

2013 saw the second full year of operation of the Linton Hydroelectric Station, our owned-and-operated power station situated in the Yorkshire Dales National Park. The power station returned a generation figure close to the theoretical maximum, effectively offsetting 78% of procured grid electricity in 2013. Using our expertise to promote the use of renewable energies is an effective way for us to offset the impacts associated with our activities. Read about our open days and educational visits to Linton Falls on page 25.



## Our Carbon Calculations

Description	Quantity:						Conversion Factor kgCO <sub>2</sub> /Unit	CO <sub>2</sub> e (Tonnes):					
	2008	2009	2010	2011	2012	2013		2008	2009	2010	2011	2012	2013
Gas Oil (Litres)	3,254,268	2,535,083	1,374,923	1,632,811	1,325,883	1,765,482	2.762	8,988	7,002	3,798	4,510	3,662	4,876
Natural Gas (m <sup>3</sup> )	20,256	26,994	6,163	4,667	24,044	33,415	2.009	41	54	12	10	48	67
Diesel (Litres)	804,944	783,876	786,730	757,006	927,094	978,936	2.639	2,124	2,069	2,076	1,998	2,447	2,583
Petrol (Litres)	47,260	82,900	96,652	92,988	51,084	46,148	2.304	109	191	223	214	118	106
Electricity (kWh)	322,859	302,232	588,488	593,095	545,317	319,968	0.541	175	164	318	321	295	173
Linton Hydro	N/A	N/A	N/A	N/A	-424,354	-251,998	0.541 (Assumed)	N/A	N/A	N/A	N/A	-230	-136
Total Tonnes CO <sub>2</sub> e (Absolute)								11,437	9,480	6,427	7,053	6,340	7,669
Tonnes CO <sub>2</sub> e per £100,000 Turnover								12.03	11.02	7.82	6.72	5.28	6.50
Annual CO <sub>2</sub> e Reduction (%) vs Turnover								N/A	8.4	29.0	14.1	21.4	-18.4
Total CO <sub>2</sub> e Reduction (%) vs 2008 vs Turnover								N/A	8.4	35.0	44.1	56.1	45.9

Our carbon calculation uses the methodology and conversion factors set out by the Carbon Trust. As well as consumption of gas oil on our construction sites and natural gas to heat our main offices, Scope 2 also measures emissions associated with the petrol and diesel used in our fleet vehicles (cars and vans) as well as any private vehicles used for business. All employees with a car (or car allowance) have a fuel card for business and private mileage. Strictly, emissions from private mileage should be excluded from our calculation and those from commuting should be included in Scope 3, however we do not have a process in place to separate business, commuting and private miles. We have therefore chosen to include all fuel in Scope 1 of our carbon footprint calculation. Indirect emissions in Scope 2 of the carbon calculation represent our electricity consumption.



### Waste Management

JN Bentley's aim is to maintain a diversion rate of waste from landfill in-excess of 90%.

We achieved this again in 2013.

The key waste measure for JN Bentley relates to skip waste because this is largely independent of work mix and therefore a good indicator of our real waste performance. We present our data in 'cubic metres of skip capacity purchased', which is more directly related to the cost we pay – after all, sending part-full skips away is wasteful in itself!

When normalised against the number of operational sites we ran last year, we recorded a decrease in skip waste generated when compared with 2012, from 23.1m<sup>3</sup> of waste, to 22.4m<sup>3</sup>.

**Our vision is to achieve zero environmental incidents and legal breaches. To achieve this, our management of the environment is proactive and goes beyond programmes of mandatory compliance.**

In 2013 we completed the construction of a **new fish pass near Leeds**, which allows a variety of species to bypass Rodley Weir by connecting the upper and lower reaches of the River Aire.

The fish pass has a naturalised appearance, similar to that of an upland stream, achieved through the use of precast concrete modular wall system that has a look of natural stone.

Working closely with client Yorkshire Water and a variety of stakeholders, including Rodley Nature Reserve, we were able to enhance biodiversity on site by creating a number of ephemeral rain-fed ponds. These created a new habitat for wildlife and are in keeping with the nature reserve's existing wetland areas. This solution also meant excavated spoil didn't have to be removed from site.

Replacing a **rising main at Clifton in York** posed a number of challenges to our team designing and constructing the works.

The site was located on environmentally-sensitive land adjacent to the River Ouse so it was vital to minimise our impact. The site footprint was reduced through the use of directional drilling, and close relationships were formed with bodies such as the Friends of Rawcliffe Meadow, a group of local volunteers; City of York Council; the EA; and Natural England. These relationships enabled a number of opportunities for ecological improvements to be realised, including the formation of Tansy beetle habitats and the construction of additional cells within the EA flood basin to encourage the development of emerging and indigenous species.

Both schemes have since been shortlisted for a number of industry awards.



### In 2013 Managing Director Paul Bentley joined an Infrastructure Working Group established by the Green Construction Board.

The Working Group is focusing its efforts on carbon reduction, drawing on case studies from within its membership to demonstrate that pursuing carbon reduction generates cash savings. In November, a joint initiative to reduce carbon in infrastructure – devised with the aid of the Green Construction Board – was signed by JN Bentley, together with other industry leaders and the UK government. Read more at [www.greenconstructionboard.org](http://www.greenconstructionboard.org).



# Looking Ahead

As recent five-year framework extensions with both Yorkshire Water and Severn Trent Water suggest, a significant proportion of our immediate future revenue will be delivered by contracts in the water industry. As AMP5 draws to a close, some preparatory AMP6 (2015-2020) works with these clients will begin in 2014. We expect revenue generated through contracts with Northumbrian Water and Essex & Suffolk Water to improve too.



Bentley



2014 will also see the conclusion of the formal AMP6 bidding process with a number of potential clients with whom we would like to develop successful long term relationships, including **Anglian Water, United Utilities** and **Dŵr Cymru Welsh Water**. These bids build on foundations laid in recent years through successful projects such as the Covenham to Boston pipeline, which was completed in 2013.

2014 sees bidding commence for the next phase of design-and-construct works with the **Coal Authority** too.

Having joined the **Environment Agency's** supply chain in 2013, after winning a place on their Water and

Environmental Management (WEM) framework, our new JV company JBA Bentley will establish itself by increasing its delivery with this new client.

We will maintain relationships with **Procter & Gamble** and **National Grid**, and explore new opportunities with local authorities across our operating regions too.

With all of our clients, it is important that we understand the pressures they face. We must work with them and their other partners in true collaborative spirit to overcome their challenges. We will do this using innovative, clever techniques that are safe, cost effective and sustainable.

Our **Steering Groups** will continue to operate with delegated authority from the Board with the aim of driving the improvements that ourselves and our clients demand. Recent broadening of Steering Group membership will widen both capability and capacity and engage more people around the business. Each Group has identified five key themes for improvement in 2014.

**Existing frameworks and recent contract extensions mean we have a good base on which to begin the year. The conclusion of a number of bidding processes in 2014 brings with it the potential to secure further opportunities for the future too.**







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