

one

Reflecting on a great start to AMP6.

Find out about our Year 1 performance on Page 2.



Securing the future of engineering.

Read about our 'design to
site' graduate training
programme on Page 14.

Room with a view.
Discover our innovative,
interactive project
rehearsal space on Page 11.





Continuing our successful momentum

Our Year 1 performance was excellent. We delivered a programme of around £95 million and achieved an overall TDI score of 98, just above the stretch target. Meanwhile, our current efficiency saving is well ahead of target at around 38 per cent, which is really positive.

It's really important that we now deliver on these encouraging numbers, both in terms of efficiency and projected dates, and that we secure further opportunity by progressing the 'white book' initiatives. Let's secure more positive change and continuous improvement into Year 2.

We have some really exciting initiatives underway and I'd encourage everyone to find out about – and get involved in our Living in an Injury-Free Environment (LIFE) programme, 'fit for assembly' project rehearsal and the production management improvements – three key initiatives that will underpin our progress through AMP6.

Dale Evans
Director @one Alliance



AMP6 Year 1 performance – an encouraging start

142 schemes went through DM2 with a total Final Business Plan of £269m, producing an AMP6 savings forecast of 38% and moving us from stretch performance to frontier levels.

Our Accident Frequency Rate (AFR) has been steady at zero since August 2015, with no major accidents/RIDDORs since the beginning of AMP6.

Reduction of Time is a new measure for AMP6 and we are just short of our 50% target for Time on Site and halfway to meeting the target for Project Life.

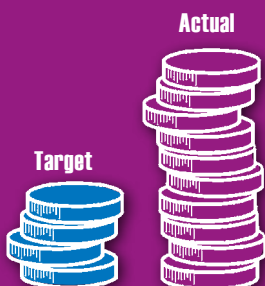
AFR

Target 0.1
Achieved/Actual 0



Commercial Performance

Target (Frontier) 30.5%
Achieved/Actual 38%



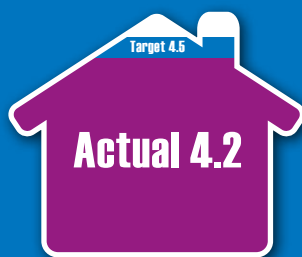
Capital Carbon

Target 60%
Achieved/Actual 51%



Customer SIM

Target 4.5
Achieved/Actual 4.2



Reduction of Time

Reduction of Time Target 50%
Time on Site Actual 49%
Project Life Actual 27%



Award-winning colleagues keep customers on water

Delivery Assurance Manager Alan Wells has been given a special Interruption to Supply (I2S) award for his commitment to taking personal responsibility for this key Outcome Delivery Incentive (ODI).

Like all water companies, Anglian Water has to manage its performance with Ofwat to show how long customers have been off water. The organisation can be rewarded or penalised for ODIs, so literally every second counts.

Alan was originally nominated for the award by one of his colleagues for his involvement in the Moorland Road pipe-bursting scheme in Scunthorpe (see issue 24 of **one** magazine for details of the scheme).

Alan was instrumental in identifying the need and putting solutions in place to ensure none

of the 460 customers affected by this scheme were off water for more than three hours.

He also wrote the impact plans necessary to compete this work – which included the installation of temporary supplies during the pipe-bursting operations – and arranged for line stops and tankering.

Alan's name has consistently come up as someone who has taken personal responsibility for interruptions to supply ODI, which is why he was so deserving of his award.

Meanwhile, Dominic Peel, Pipeline Engineer, and Dan Laddiman, Network Service Support Manager for Networks East, realised the potential for 2,000 customers to be affected while working through the

required shutdowns on a major mains rehabilitation scheme in Norfolk.

They identified a strategy utilising a combination of line stops and tankers to minimise interruptions to supply, reducing the number of customers affected to 20. Dan and Dominic's successful ideas are now incorporated into the planning for all @one Alliance schemes.

Remember that everyone's actions, whether individuals or teams, can contribute or impact on Anglian Water's ODIs.

Dominic Peel, above, and Alan Wells received awards for keeping customers on water.



Our publications scoop industry awards

The @one Alliance **one** magazine beat off stiff competition to win another accolade at the recent Institute of Internal Communication (IoIC) Central and North Awards.

one took away a coveted Certificate of Merit at the awards ceremony, which followed a busy day of seminars sharing best practice in the field of internal communication.

The magazine, which is produced by our Communications team and RED Publications, one of our Tier Two suppliers, has been a consistent award winner, having taken away similar awards in recent years.

Our *AMPS Journey* book, produced as a celebration of @one Alliance achievements in the last AMP period, was also recognised, winning an Award of Excellence in the Special Publications category.

Customer and Communication Manager Grant Tuffs said: "It's great to receive this industry recognition as it shows that we are maintaining the high standards we want to deliver through our communications.

"Don't forget that this is your magazine, so if you have a story to tell or a photo to share, please get in touch with me on 01733 414 108, or email gTuffs@anglianwater.co.uk."



From the left: Grant Tuffs, Laura Upson and Andy Douse, Director of RED Publications, are presented with the awards.



Meet one of our High Performing Teams

The @one Alliance introduced a new culture of High Performing Teams at the beginning of AMP6. We speak to Integrated Project Leader (IPL) Simon Armitt about how our new approach to team building is working in practice.



Simon Armitt

What is your team and what do you do?

We're a multidisciplinary team committed to delivering two really interesting and challenging programmes of work – regional capital maintenance in the Cambridge and Essex region and assessing additional capacity requirements at our water recycling centres to accommodate future growth in our region.

How would you describe a High Performing Team?

A High Performing Team is aligned and clear about its goals and objectives, working collaboratively and collectively to deliver projects effectively and efficiently.

It's a team that builds mutual trust and works together and supports each other, particularly when times are tough or things aren't going according to plan.

A High Performing Team does not just centre around the key functions within a team, for example, the Project Manager, Cost Manager, Planner and Technical Manager – there are many more functions that help to drive a successful project.

Everyone has a role to play and we can't deliver successful projects without the full integration of our supply chain, operations and the many support functions that exist across Anglian Water and @one Alliance.

The important elements of a High Performing Team can vary depending on the team, their

purpose, goals and objectives. They have to understand their own role and responsibilities as well having as a good understanding of those of their colleagues. Teamwork is also key; we succeed together, we fail together. Communication and ownership are high on my agenda. Take the world of

“Teamwork is also key; we succeed together, we fail together. Communication and ownership are high on my agenda.”

objectives, their starting point and desired outcome. To some degree, every High Performing Team can be unique.

What is key to the success of a High Performing Team?

As you can see from the High Performing Team Principles illustration, achieving base layer principles to head towards high performing is fundamental. My team has to be clear about our

sport – success is often a team effort with each player or athlete understanding the role they play.

How is a High Performing Team put together?

The Management Team, Functional Managers and IPLs worked collectively to form teams – led and coordinated by the People Development team. My team was carefully chosen through a selection process.

I was also involved with placing candidates into specific roles by working with my fellow IPLs and Functional Managers, who were clear not only about 'best for task' but how people would learn and develop in the teams they were being allocated to.

Once our own individual teams were formed, we were able to start to shape and develop them.

How does a High Performing Team function differently from teams in previous AMPs?

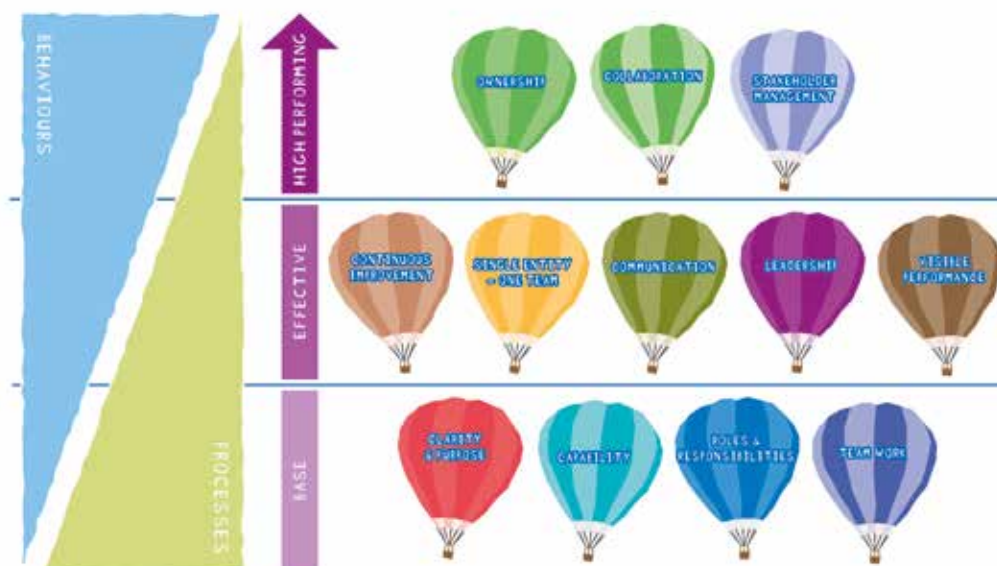
The integration of Site Managers and Construction Managers into a dedicated delivery team is a significant change from previous AMP periods. We are also seeing much better integration with our supply chain as well.

Why are High Performing Teams important to a unique organisation such as the @one Alliance?

We work in a highly challenging environment. Our delivery model drives outperformance and we all have a role to play. For me it goes back to the 12 key principles of a High Performing Team. I've definitely seen a shift over the last ten years – we've gone from delivering partner-led projects to a fully integrated delivery team.

How has your High Performing Team evolved during the first year of AMP6?

Over the last month or so I have started to see the team move towards a High Performing Team. The first year has not been easy, but we've delivered a number of successful projects and we've learnt loads – not just about the process but how we





Some of the team work on site and others are based at Thorpe Wood House.

deliver against it. Functional @one Alliance Academies such as the IPL Leadership Academy also play a role in developing specific functional areas within our own teams.

We're in a good place at the moment – it's something to be proud of.

What are the major challenges that your team faces?

The @one Alliance is rewarding and unique, but equally extremely challenging. While we have good visibility of our workload, we will still face many challenges over the next four years. We need to be resilient when it comes to this challenge. We also need to build on relationships with our operational colleagues, supply chain and other key stakeholders.

We have a strong programme area leadership team, led by Programme Area Manager Ian

Hutchinson. We recognise what we need to improve and work together to resolve issues and challenges beyond the influence of our own IPL delivery teams.

What does success look like for your team?

Success is the delivery of our expected outcomes in accordance with our planned objectives. Success is also the team bonding together, building strong personal and professional relationships over time, so that they want to continue working together in the next AMP.

What is exciting you at the moment?

We've done a lot of work to understand and define the shape and magnitude of the Growth Portfolio. I've worked closely with my fellow IPL John Grimm and members of both our teams

to gain a better understanding of what we need to deliver for our customers. We've recently concluded a comprehensive review to determine what the programme of work looks like and when and how it will be delivered. This enables me to allocate resource to the end of AMP6, and focus on developing my team towards high performance and hopefully have some fun along the way.

What are the key learnings you have experienced within your High Performing Team?

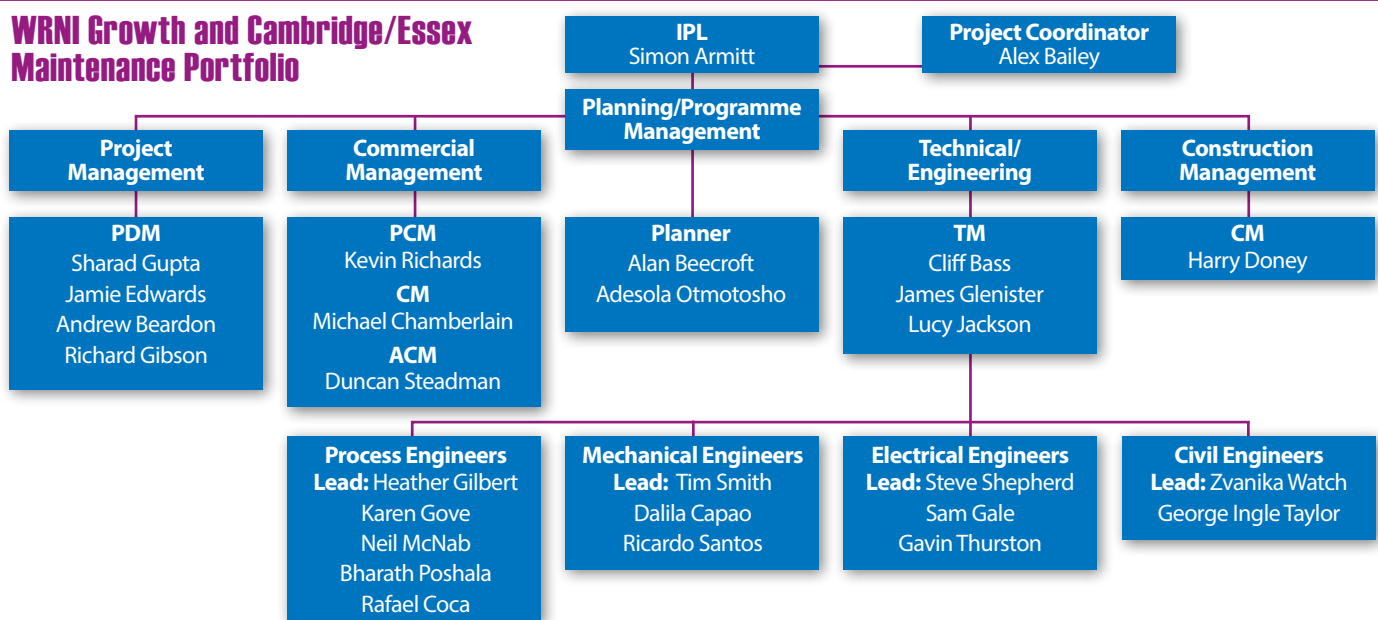
A High Performing Team does not develop overnight – it requires an investment of time and commitment by the whole team.

What are your key messages?

The success of a project comes from a High Performing Team that fully integrates with internal and external stakeholders.

AMP6 is a world of opportunity, but we can't deliver our programme of work without a committed and highly effective team and I really want my team to feel encouraged and empowered to help overcome the challenges.

WRNI Growth and Cambridge/Essex Maintenance Portfolio



Reward and recognition for great service

We are seeing an increase in the amount of customer feedback as we make it easier to capture what our customers say about us using mobile technology and by doing more surveys – all with the intention of looking to continuously improve the service we deliver.

This important feedback can come from our external customers, the general public and from our internal 'client' customer – Anglian Water operations teams.

The latest winners of our Customer Service Recognition awards have been announced after a review of several nominations of teams and individuals who have gone 'that extra mile'.

The winners are:

Whitlingham Cake Reception scheme team

This team was recognised for the standard of workmanship on site and the excellent attitude of the team working with the Anglian Water Operations team based at Whitlingham.

Andy Pope, Treatment Manager, said: "I would like to take this opportunity to thank the project team. The site has looked safe and tidy throughout the project, and the team has remained calm under pressure, instilling confidence in me that the project would be a success and it has been.

Della Adams, Town & Country Planner in the Enabling team

Della's calm and prompt approach when dealing with a potentially high-profile social media backlash about planning for the Retford Water Treatment Works (WTW) scheme demonstrated a clear focus on the customer. Her swift actions turned a local community Facebook group's negative opinion of Anglian Water into a positive one, with them saying how helpful Della was with their enquiries. This helped smooth the planning application for the scheme and enhanced our reputation with the local community. Further congratulations to Della who recently achieved Chartered status with the Royal Town Planning Institute, and is now an RTPI Chartered Town Planner.



Engineering Manager Mark Froggatt presents Della with her award.



"The whole team has been a delight to work with from delivery to the majority of tradesmen employed on site – a big well done and thank you."

Delivery team members: Dave Hutchinson, Alice Clarke, Will Dobson, Imerdeep Rehlon, Alex Pollard, Ross Lamont, Dave White and MMB outsourced design and Angela Richardson.

Site team members: Andy Pope, Treatment Manager, Dave Matthews, Health and Safety Manager, Kevin Hooks,



Construction Manager, Andy Paton, Andrew Hardy, Martyn Hender, Steve Dewing, Daniel Earls, Martin Garside, The Hope Brothers – Tony and Phil, Steve Riley, Will Payze, Harry Self, Roy Harding, Paul Ashby, Andrew Barnes, Paul Harvey from Waveney, Matt Harris from Glasswell and Last and Rory Wheeler from Bells.

Burrowing for bunny rescue!

When our Tier Two partners Coffey Construction, who were working with the team at Oakham Water Recycling Centre (WRC) in April, were in the process of loading a dumper using a small excavator from a stockpile of sand, they happened to notice tiny burrows in the pile.

So using their hands, they carefully dug down into the burrow and found two baby rabbits inside.

They brushed off the

bunnies and cleaned them with warm water and wiped around their eyes. Once clean, the rabbits were released in a safe area away from the work site.

Colleagues at Oakham WRC have since noticed the bunnies are still in the area running around with no sign of discomfort, which is great news.

MWH District Two Managing Director, Paul Gledhill, said: "Well done team. This shows fantastic awareness of your working environment."



On track for a

"In Year 1, the @one Alliance maintained its AFR of zero, which is a fantastic achievement, but we cannot be complacent. This doesn't mean we weren't completely incident-free," said Richard George, Head of Operations.

"We're working more closely with the Design and Standard Products teams on the 'safe for assembly' process, so we know

Following an independent safety review of the @one Alliance's safety systems in January, the Safety Management team has been developing a new single @one Alliance safety management system (SMS).

“We’re also developing an academy to support construction teams in all areas of health and safety and production on site.”

"I'd like to say a huge thank you to the Safety Management team for their hard work on the new SMS."

one Issue 26 • May 2016

South Witham Water Recycling Centre (WRC) Delivered by the WRNI team



Influent water
(above) and final
effluent water (left)

A challenge to determine whether technologies are available for treating phosphorus towards 0.1 mg/litre is in the PR14 National Environment Programme.

Part of this challenge is trialling novel technologies at full scale, which is where the @one Alliance became involved.

To demonstrate the treatment performance of the process at South Witham WRC, a single CF-64 Blue PRO Sand Filter was installed downstream of the existing humus tanks. An existing humus effluent chamber was converted into a diversion chamber and the existing redundant recirculation pumping station converted into a tertiary sand filter feed pump station.

In normal operation, humus effluent gravitates to the feed pump station and is pumped through the automatic strainer to the sand filter by duty pumps. The tertiary treatment stage includes chemical dosing, sand filter air compressors, control and monitoring. Tertiary filtered effluent is returned to the diversion chamber and gravitates to the TSFR flow meter flume. Reject effluent is discharged to the existing drainage system via a sand trap. Recirculation pipework allows some of the tertiary effluent to be returned to the tertiary feed pump station at times of low flow. A temporary above-ground sludge tank increases sludge storage capacity. A mobile pump allows sludge to be transferred from the existing sludge tank to the new tank.

The plant has been designed to be safe to maintain and operate during the 12-month

trial period, comprising an ISO container housing motor control centre, dosing system and compressors, complete with IBC chemical storage and bunding. These assets can be dismantled, placed on the back of a lorry and shipped to another site.

It was an excellent team effort, with great communication and assistance from operations teams. Tier Two partners included Evergreen Engineering, Paktronics, Waveney and RG Carters.

"The communication between the delivery team and operations were very good. The collaboration helped identify and deliver a number of efficiencies, and results since the install have been excellent. We're very pleased to be part of the phosphate removal trial."

Tim Hoults, Spalding Treatment Manager

Costs:

Final Business
Plan:

£1,946,77

Current
EAC

£1,217,631

Carbon:

PR14:160 tCO₂e; DM3: 63 tCO₂e

Site



SEMD Operational Water Sites, northern region

The @one Alliance was mandated by Defra to undertake security works across Anglian Water's Operational Water sites under the Security and Emergency Measures Direction (SEMD).

This includes work on 500 water assets across the region, representing a major logistical challenge to the team and our supply chain.

Work has been broken down into 12 geographic packages for efficient delivery, and installation is initially being focused on sites in the north of the region. The first of these was completed early in February.

Close liaison takes place with multiple support functions, especially the Enabling and Construction Design Management practitioners. Thanks to the close working relationship with Enabling, the Operational Water team adopted a risk-based approach to all ecological and environmental aspects frequently encountered on the surveys. Commonly identified risks include bats, nesting birds, established trees and ancient hedgerows, and add to the complexity of projects. The project team hold frequent meetings with the CDM practitioners to review designs to safeguard the health

and safety of everyone involved in the project.

The project involves hundreds of surveys across multiple sites. Through collaboration with the Continuous Improvement team, SEMD has integrated the use of Pinnacle cameras on every survey. This captures all assets in digital form and often prevents the need for follow-up site visits, reducing time on site, rework, travel, cost and carbon emissions.

The embodied carbon for the Grantham region is 17.31 tCO₂e which is a fantastic achievement against a

baseline of 138.64 tCO₂e, an 88% saving. This reduction was achieved by approx operational resilience protecting critical assets. The region was delivered for "frontier performance" £659,000 Final Business



News

Wing Water Treatment Works (WTW) micro strainers refurbishment Delivered by the Water Non-Infrastructure team

Wing WTW is Anglian Water's second largest water treatment works supplying water to 500,000 customers every day. Taking water from Rutland Reservoir, the micro strainers are the primary treatment process, designed to remove fine matter and algae from the raw water. There are eight micro strainers in total, six primary and two secondary.

This maintenance scheme refurbished two primary strainers and one secondary.

The strainers operate from April to September, 24 hours a day, which meant that the refurbishment could not start until September 2015 and had to be completed by March 2016.

The project disassembled the strainers to assess which parts could be reused, which could be refurbished and which had to be replaced with new.

The @one Alliance delivery team, Tier Two MEICA subcontractor and Anglian Water Operations worked collaboratively to assess the condition of the parts in order to agree what needed to be done.

The MCC was also surveyed and some minor modifications and upgrades were made to bring the panel up to a better standard, without wholesale replacement.



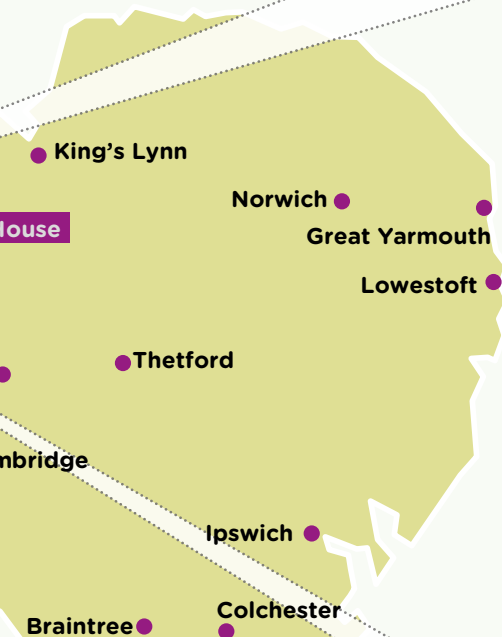
This approach kept costs low and helped to achieve the embodied carbon target. The refurbished micro strainers were successfully commissioned and handed over to Operations ahead of the March completion date.

Costs:

Affordability Capex was	Out-turn cost at DM4 was
£844,000	£619,000

Carbon:

Baseline: 56.1 tCO₂e;
Solution: 20.2 tCO₂e.



Wing Water Treatment Works (WTW) Delivered by the Infrastructure team

When a leak on the 1,000mm inlet main to the clean water tank at Wing WTW was identified, it had the potential to cause a supply interruption for more than one million customers. Work had to be completed before seasonal demand picked up so Anglian Water asked our Infrastructure team for help.

The inlet main was four metres deep, requiring specialist deep excavation shoring, and was surrounded by other critical assets, high voltage cables and chlorine dosing lines. Any errors during excavation could have resulted in the works being shut down.

"Thanks for the fantastic job that the team have done. From my perspective an excellent job – safe working on site, well supervised, excellent collaboration with the Ops team, great communication."

Jim Foster, Regional Supply Manager (West)

Due to the deep excavation, a WRI team was asked to do the work, managed by a WI site manager who had a wealth of experience in large diameter water mains connections.

The Anglian Water supply team trawled through old plans of the works and identified several buried assets that needed to be negotiated, making the work safer and faster.

Once excavated, the team was able to assess the problem. Rather than attempt to lift the main back into position, Tier Two supplier UTS manufactured a bespoke offset section to deal with the pipe misalignment.

While the pipe was cut open the team cleared out debris, preventing the need for manned entry through the clean water tank, making the work safer.

In discussion with the Supply Manager, the team assessed the risk of any similar joints failing, so the deep excavation exposed the next joint in the same



"Great work well done everyone involved."

Paul Valleley, Director of Water Services

excavation. This joint was also leaking so UTS provided a bespoke repair collar that avoided cutting into the main. The main has now been successfully recharged and the clean water tank cleaned.

This was a great example of successful cross-@one Alliance teamwork, utilising the best people for the tasks, irrespective of their traditional WRI/WI backgrounds.

Working closely with the Anglian Water supply team reduced the risk to the assets and ensured the safety of the project team.



raising existing measures, only... The Grantham... or £340,000, a... 48% below the... s Plan figure.

Partnership Profile

In previous issues of **one** magazine, we've offered an insight into how some of our partners work together, and how they make the @one Alliance so unique. This time around we catch up with colleagues from Skanska.

SKANSKA

Skanska brings together people and technology as part of its quest to make construction a safer and more collaborative industry.

Established in 1887, Skanska draws on its Scandinavian heritage as an innovative, progressive, inclusive and responsible business that is helping to build a better society.

It employs 48,000 people globally, of which 5,400 are based in the UK and 120 of those are colleagues at the @one Alliance.

"Our people are an essential part of the @one Alliance team," said Richard George, from Skanska and Head of Operations for the @one Alliance.

"We're integrated across most of the areas and disciplines. This is great for us in terms of people development and also great for the @one Alliance as we're able to contribute well and in so many areas.

"But the real benefit comes from being part of the wider @one Alliance team and working so closely and in such an integrated way with our partners.

"All the partner companies have different things to bring to the table. The @one Alliance partnership has been together for 10 years, so collaboration and integration of the teams is well embedded," she added.

"Collaboration is very much ingrained into our people and the Skanska way of working, which makes us a good fit with all of our partners.

"It's exciting to work with a client like Anglian Water which likes to push the boundaries on key and fundamental values

Name: Richard Scott

Role in the @one Alliance:
Works Manager.

For how long have you worked for Skanska and for the @one Alliance?

I've worked for Skanska for five years and nine months and for the @one Alliance for four years.

Main responsibilities:

Ensuring the site is run in accordance with the @one Alliance's safe systems of work.

Main challenges:

To work safely, on time and within budget, looking after the environment for future generations to enjoy.

Best things about being part of the @one Alliance:

Always looking to improve the way we work and sharing the good and not so good things we do.



around carbon reduction, sustainable delivery and solutions and improving the environment in which we live and work. We want to push those boundaries with them.

"Anglian Water has its goals but it is also extremely focused on the customer, which positively changes the dynamic of delivery; it's not so much about delivery, it's about the outcomes for the customer."

Build off-site success story

The @one Alliance was asked to showcase our approach to build off-site and standard products to a wide audience of companies and suppliers from across the water industry.

The event took place in March at Pulloxhill Water Treatment Works (WTW). This was chosen as a site which demonstrates how the use of build off-site and standard products drives a collaborative and integrated delivery approach – from design, through to the supply chain, assembly and operations teams.

As well as presentations from Engineering Manager Mark Froggatt, DAC Manager Mark Hedges, Product-based Delivery Manager Lindsey Taylor and Site Manager Bryn Palmer, there was a site tour of the treatment works.

The session offered an honest 'what went well and what have we learnt approach' which was well received by those who attended.

Paul Jackson, chair of the Buildoffsite Water Hub group, commented on the success of the @one Alliance's approach to off-site construction and assembly at Pulloxhill WTW.

"I know that some of the Buildoffsite members were astonished at the achievements at Pulloxhill and the representatives from one of the water companies were astounded at the collaborative culture which allowed so much of Pulloxhill to be designed, manufactured and constructed with on-site time and carbon reduction so clearly at the forefront."



Buildoffsite visitors at Pulloxhill.

Anglian Water and the @one Alliance, along with companies such as Asda, GSK and the London Underground, are members of Buildoffsite.

The organisation works with its members and partner organisations to promote an approach to construction that assumes that wherever practical, buildings and structures should be assembled on site from a set of quality manufactured assemblies and components.

It also encourages discussion and knowledge transfer relating to the use of off-site solutions.

buildoffsite



Room with a view of the future

Pop into Room 17 in Thorpe Wood House and you will be amazed by its transformation into a space where you can experience innovative technology.

Check out the 4D software, large format video screens and virtual headset, all of which mean you can negotiate your way through schemes and projects before they are even built.

The transformation of Room 17 into a fully interactive project rehearsal space is a key part of implementing our AMP6 Business Plan and efficiency targets towards a more assembly on-site approach to how we deliver projects.

The Project Rehearsal and Fit for Assembly processes have been developed and are beginning to be rolled-out, to ensure we have integrated commercial, procurement, design, standard products and construction in readiness for a faster and more efficient assembly on site.

We have also been moving towards an end-to-end integrated use of BIM-related technology to help us develop and deliver our projects.

The Project Rehearsal room provides technology supporting three principal processes:



“The aim is to ensure we have integrated commercial, procurement, design, standard products and construction in readiness for a faster and more efficient assembly on site.”

Digital rehearsal

Digital rehearsal is the result of being able to integrate 2D or 3D models with project programmes, often referred to as 4D.

The main element of digital rehearsal is video, which allows complex sequences to be rehearsed, reviewed and refined in a safe environment before carrying out the real thing.

The Project Rehearsal room provides large format (84-inch smart and touch technology) screens along with leading 4D software.

interactive whiteboard. Comments written on the height-adjustable, trolley-mounted 84-inch Smartboard are converted into computer text through handwriting recognition software and saved to the electronic document. The same can be achieved with marked-up drawings, making our review process smarter and more efficient.

Our partners have invested heavily in the transformation of Room 17, which reflects our vision that we will be working in a very different and more efficient and integrated way throughout AMP6 and beyond, providing us with a truly industry-leading facility.

There have already been some initial training and buzz sessions to demonstrate the capabilities of the technology in the room, with more planned.

What we've done so far is a foundational step, as we know there is a lot more we can do with the technology to drive collaboration and efficiency through the inclusion of our remote and site-based teams and our supply chain.

Immersive review

Immersive technology, in the form of an Oculus Rift virtual headset and a 55-inch 3D screen, transforms our review process for design, construction/assembly, safe to operate, safe to maintain and handover processes.

Interactive review

Using Smartboard technology, we can digitally review and mark up documents, spreadsheets and 2D drawings using an



Drop In Drop CO2

Carbon Week was all about promoting carbon literacy and our AMP6 targets. Building on these foundations, the purpose of the Drop In Drop CO2 event was to showcase practical ways to reduce carbon in our projects. One hundred people dropped in to stands using the latest technology in Room 17 to find out about:

- Seven new best practice case studies from the Infrastructure teams;
- Cemfree, BodPave, C-Probe and other carbon-busting civil developments;
- New virtual survey technology that saves time, cost and carbon;
- How standard products can save you carbon, the catalogue where you can find them all, 3D models and a new calculator in development;
- How carbon was reduced at Cambridge Water Recycling Works;
- Tackling operational carbon with the Energy team's Chris Evans, whose door is always open;
- Sustainability resources and how to access these via the Sustainability in Design (SID) web portal.



Attendees find out about reducing carbon.



Make friends with SID!

You can find links to all the case studies, carbon modeller tutorials, Sustainability in Design toolkit, carbon quick guides and upcoming sustainability sessions on the SID web portal. Visit www.sid-portal.co.uk

Sewerage scheme teaches children a life lesson

When @one Alliance Civil Engineer Graeme Skelton and his team were called in to mend a broken sewer under the playground of Brackley School in Northamptonshire, it gave them an idea for a great community engagement project.

"CCTV showed the sewer was badly damaged and broken so a dig was absolutely necessary," explained Graeme.

"So we thought that rather than just dig up their playground, we'd engage the children in the work we were doing and give them an understanding of how the pipe network works."

Once the team had assessed the work that needed to be done, Graeme spoke to the school about Anglian Water offering 'Mad Science' assemblies which they could present to the school's pupils, explaining the science behind the project in a fun way.

Graeme said: "Lots of the children didn't understand the work that we do in terms of keeping used water flowing and treated, so the assemblies made

them aware of that, and the appreciation of what they don't see once they have flushed the toilet.

"The assemblies planted the seed of Anglian Water's Keep It Clear message – that toilet paper and liquid should be the only things put into a toilet, and that people shouldn't be putting cooking fat down the sink."

One of the Year 1 teachers said: "Zulekha was amazing. I laughed as hard as the children. She also gave us teachers some great new ideas to use in school."

Graeme added: "Judging by the feedback we received, a life lesson was taken away by the youngsters to be passed onto friends and families at home."

"The assemblies were such a success that we hope to be able to do similar events in the future with schools and community groups."



Zulekha Makda, Mad Science presenter in action.

Harrison, 9:

"A lady came in and talked about poo and wee stuff. She called it our 'business'! She used a leaf blower to show how fast toilet paper travels."

Maya, 10:

"She made a toilet out of lemonade bottles and tubes. We learnt that only liquid goes down the sink."



An inspiring world record achieved!

An innovative idea to construct a huge tower made from 5,000 paper tubes not only attracted and inspired young people to consider engineering as a future career, but also broke a world record.

The construction project was part of a taster week for new students starting at Greater Peterborough University Technical College (GPUTC). The college opens in September and Anglian Water is its lead sponsor.

The tower took two days to build and involved a team of 15 Anglian Water and @one Alliance colleagues working with 70 students who have enrolled on courses at GPUTC. Standing at 3.51 metres high, it was a feat of

engineering which has ended up in the Guinness Book of Records.

Some @one Alliance engineers involved included Pragni Parmar, Nicola Goodman and Alison Taylor, who appeared on BBC's *Look East* talking about the project and careers for women in engineering.

Barhale, one of our partners, supplied the safety barriers to keep the construction area safe and a qualified surveyor who carried out the all-important measurements.

With a skills gap across the engineering industry, the @one Alliance is keen to attract engineers of the future to sign up to courses at GPUTC, as there's a need to encourage and develop new talent.



Record-breakers!

The @one Alliance is supporting a 'Women in Engineering' event in St Ives on 23 and 24 June.



The shape of things to come



By 2020, there will be a 23 per cent increase in demand for skilled trade and labour in East Anglia, which would mean an extra 12,100 workers needed in the region alone*.

To help address this potential crisis in our industry, we're currently training engineers and construction workers of the future by sponsoring two courses at the College of West Anglia (CWA) in Wisbech (as reported in issues 24 and 25 of **one** magazine).

"The students are impressing people already," said Dave Newsome, who is project managing the development of the courses.

"Some of our Level 3 students went on a site visit recently and afterwards I received a phone call asking whether it was possible to employ some of the students now. It's very encouraging.

"As long as the students pass all their modules at the end of their second year, there's a very real chance they'll get a job with Anglian Water's alliance partners."

To encourage new students to enroll on the course in September, a taster day was held at CWA in February, which involved a series of activities including



a meter exchange rig, butt fusion and demonstrations of PPE and safety products.

"We had a really good turnout from colleagues from all four alliances and our supply chain," said Dave.

"We also had several potential students register their interest and we are looking to organise a similar event in the coming months."

The students have already been involved in shaping the future of the @one Alliance's PLM at a 'Dragon's Den'-style challenge in March. They were tasked to come up with ideas to 'sell' to our PLM team, which included virtual reality house building, using renewable resources and developing an Anglian Water engineering and construction school.

Gary Slater, Digital Asset Creation Team Leader, said: "The students worked well in teams, presented passionately and impressed the PLM Working Group.

"The ideas will now be fed into the next PLM Working Group to help shape the future of PLM at the @one Alliance."

If you know anyone interested in applying for either course, or if you would like to get involved in the next taster session, please email Dave at dNewsome@anglianwater.co.uk

*Source: CITB/WLC

Connecting with potential recruits

As an award-winning organisation made up of seven brilliant partner companies, we think the @one Alliance is a great place to work – and we've been promoting this through several recruitment initiatives.

Connect, a networking and recruitment event held in February at Greater Peterborough University Technical College (GPUTC), was hosted so that people interested in joining the @one Alliance could have a chat with colleagues and find out what jobs are on offer.

Project teams from Boston, Bury, Pitsford, Bishop Norton, Raithby and Postwick, and Cambridge manned stands; members of 'Tributaries', the @one Alliance's fledgling graduate group, talked to young people about careers in engineering; while DAC Manager Mark Hedges demonstrated the innovative 3D Oculus goggles.

Bodies such as the Water Innovation Network (WIN), ICE and IMechE, the professional bodies for civil and mechanical engineers, were on hand. Meanwhile, @one Alliance Director Dale Evans and Engineering Manager Mark Froggatt gave a number of presentations.

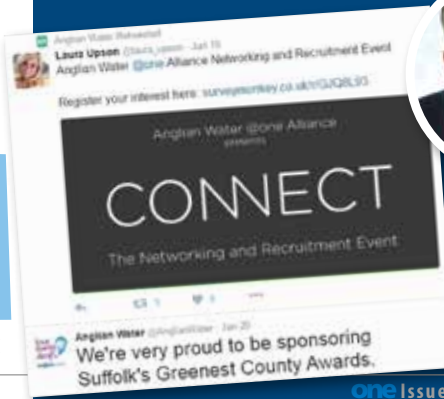
"We're going to host similar events in the future," said Visual Communications Manager Laura Upson.

"We promoted the event via social media – LinkedIn, Twitter and Facebook – and had an excellent response.

"We're really impressed at how well social media worked to advertise this event and we're looking to do a lot of promotion this way in the future, as well as via our new @one Alliance website."

The new website, www.onealliance.co.uk, has been developed to show why we're all proud to work at the @one Alliance, showcasing projects, awards and profiles of colleagues with links to our partner companies, as well as vacancies on offer.

If you know anyone who would like to work for the @one Alliance, please email the People team: AMP6Alliancepeople@anglianwater.co.uk



Securing the future of engineering

The future of engineering in the UK is in crisis, with a significant shortage of engineers coming into the water sector, compounded by competition from other industries.

So the @one Alliance is addressing this situation with a scheme to develop our graduates to be competent in all fields of engineering, from design to site.

"Some graduate engineers come out of university having never been on a site. So this drive is to create water engineers with a rounded knowledge of the industry, from design to site to commissioning," explained Engineering Manager, Mark Froggatt.

"It's an essential scheme as these people are the future of engineering. It's about giving them good foundations, a complete circle of knowledge and testing that in an on-site environment. We need our engineers to be versatile to fit in with our culture of High Performing Teams, and have the opportunity to move around the business.

"We also need to tailor this knowledge to the individual – to what they want to do, and what best suits their skillset, in line with their professional development.

He added: "A number of our partners have been proactive in this scheme, employing young graduate engineers for us to work with."

Subject matter experts (SMEs) and project teams support the graduates through the process from design to site. Mark adds that the @one Alliance is fortunate to have partners with so many

specialists working across all engineering disciplines.

This scheme has been running several years already and some SMEs have been through it themselves so have the skills and experience

to guide the new cohort.

James Glenister, who is now a Technical Manager, is one.

"I was given the opportunity to rotate through various departments," explained James.

"The moment that stands out for me was when I phoned Mark Froggatt from site to confirm we were complete on installation, and where do I go next? Mark's response was 'great, now go ahead and commission it and then close out the scheme'. Without the opportunity and exposure to see how the @one Alliance functions

throughout, I don't think I would be where I am today; it's helped tailor and shape my direction.

"I am fully supportive of this model and for others to come through the same route."

There are currently around 12 graduates in the @one Alliance who are being assessed for the scheme, including graduate Civil Engineer Andy Bills.

He said: "Moving from design to act as a site engineer on one of our WRNI projects has given me fantastic exposure to getting a project from concept to reality. It's also brilliant evidence to support my progress to become a chartered engineer with ICE.

"I've gained a vast range of experience in the water industry and have learnt from

Top: John Bratton, Site Manager at Watton Inlet Works, with Andy Bills.

Bottom: Andy Bills checking pans set out for a retaining wall.

some of the most experienced and knowledgeable experts, both in the water industry and construction, and I can't wait to learn more."

Mark added: "We're hoping that through this scheme, we'll have developed our engineering capability for AMP6 and beyond. We want to secure our future engineers and give them the best platform possible to keep them in our industry."



Mark Froggatt



James Glenister



Andy Bills



"I work closely with the construction teams and have the chance to oversee my designs being built through regular site visits or taking a placement as a site engineer. These opportunities allow me to gain constructability skills to apply at the design stage. These skills look at the ease of construction and reducing safety risks through design and cost-effectiveness – skills I am learning much quicker through on-site experience than I would in the office."

Caroline Bryce, Graduate Engineer.



"I'm currently leading the process design on the Norwich Sustainability scheme, valued at around £25 million, undertaken by the @one Alliance. Following design, there will be a year located full-time on site supervising the implementation of the design. I feel that working through the 'graduate to site' scheme has been tantamount to providing me this great opportunity."

Martin Bennett, Discipline Engineer – Process.



Culture of teamwork

leads to success

The team working at Doddinghurst activated sludge plant was faced with a tricky challenge – but by working in collaboration with supply chain partners and Anglian Water's asset planning and operations teams, they not only came up with a solution that was innovative, but saved days of difficult and potentially dangerous work.

The team needed to mend eight flow-control hinged weirs mounted on a 35-year-old underwater concrete structure.

Project Delivery Manager Andy Beardon explained: "This was unusual as it wasn't standard work that Anglian Water does. So they asked us to come up with a solution, as the @one Alliance has access to a wide range of experience.

"The first challenge was 'how do we do this?' as the process had to be kept 'live' – we couldn't empty the ditch or interrupt the process to do the work.

"The second challenge was 'how do we design a new weir?' when we didn't know what condition the 35-year-old concrete was in."

The first thing the team did was to engage with Anglian Water operations and asset planning teams in an honest and open way.

They also spoke to specialist suppliers with experience in this kind of work and engaged

Mungo Marine, specialist marine contractors who were experienced working in and around water. They came up with a great innovation to modify how the proposed limpet shutter would be installed around the weirs.

"This had a big impact on how we did the work, making it safer, quicker and cheaper, taking the risky work divers needed to do in the water from 25 days down to just two days of low risk diving activities," said Andy.

Having arrived at the solution, the team's other big success was to plan the work thoroughly before they arrived on site so that the construction teams could come straight in and do their work, completing the project eight days ahead of schedule.

"The project demonstrated the maturing culture at the @one Alliance of working together as 'one team' – the @one Alliance, supply chain and Anglian Water," added Andy.

"We had open engagement with key Anglian Water people early on, which involved robust and honest conversations from the start, resulting in smooth and efficient delivery, and we received outstanding feedback from Anglian Water's Operations team."



Fast facts

Budget: **€777,000**

Delivered for: **€343,000**

Carbon reduction: **15%** Time on site saving: **20%** against DM2 baseline

"What was quickly apparent was the willingness and patience to listen and discuss the various proposals from all concerned while having mutual respect for each parties' expertise and preconceptions from their respective commercial backgrounds.

"This project demonstrates the possibilities and opportunities afforded by the close working relationship between Anglian Water and the @one Alliance Delivery team."

Mark Hunt, Treatment Manager,
Anglian Water.

Key people

Mark Hunt, Treatment Manager; Tim Higham, Assistant Treatment Manager; David Harris, Works Optimiser; Steve Huk, Asset Planner; Simon Armitt, Integrated Project Leader; Terry Scutcher, Construction Site Manager; Andy Beardon; Project Delivery Manager; Lucy Jackson, Technical Manager, Waveney, mechanical sub-contractor; Mungo Marine, marine sub-contractor; Mike Chamberlain, Cost Manager; Duncan Steadman, Assistant Cost Manager; Tim Smith, Mechanical Engineer; Shaun Garrett, Civil Engineer; Harry Doney, Construction Manager.



On site: Andy Beardon and Harry Doney.



Doddinghurst scheme team: (L to R) Lucy Jackson, Adesola Omosho, Andy Beardon (team leader), Harry Doney and Duncan Steadman.



Waveney team: (L to R) Keith Chappell (Fitter), Richard Housago (Project Engineer), Rob Boosey (Fabricator), Sam Webb (Fitter) and Pete Bibby (Mechanical Ops Director).



WaterAid needs you!

The @one Alliance and Anglian Water understand the importance of WaterAid's work. We really want more people in the @one Alliance to get involved in organising fundraising events for WaterAid.

WaterAid was established in 1981 by the UK's water industry. When the industry in England and Wales was privatised in 1989, the newly formed companies pledged to continue their support for WaterAid's work.

The work of WaterAid in the Anglian region is supported by the Regional WaterAid Committee, who:

- organise a number of large corporate fundraising events aimed at suppliers and contractors, plus

Fast facts

In 2014-15, Anglian Water staff, alliance partners and customers raised £602,802 for WaterAid.

smaller fundraising events aimed at staff, families and friends;

- run the Anglian region WaterAid lottery;
- support a variety of national and local fundraising efforts.

If you are interested in getting involved in fundraising for WaterAid, please contact Grant Tuffs on 01733 414108 or gTuffs@anglianwater.co.uk

2.3 billion



people in the world do not have access to adequate sanitation – that's one in three of the world's population.

(WHO/UNICEF Joint Monitoring Programme (JMP) Report 2015 update)

650 million

people in the world do not have access to safe water – that's roughly one in ten of the world's population.

(WHO/UNICEF Joint Monitoring Programme (JMP) Report 2015)



Just £15

can help provide one person with access to safe water.

(WASHCost and WaterAid, 2014)

Around

315,000

children under the age of five die every year from diarrhoeal diseases caused by dirty water and poor sanitation – that's 900 children per day, or one child every two minutes.

(WHO/UNICEF 2014, 2015)



Since 1981, WaterAid has reached **23 million** people with safe water.



(WaterAid, 2015)

WaterAid needs you!

- Charity football match, Peterborough Utd Football Club – 12 May
- The Severn Trent Mountain Challenge – 9 July
- Indoor triathlon challenge – July (date tbc)
- 1940s afternoon tea, hosted by the Blitz Sisters – August (date tbc)
- Cycling events – August (date tbc)



Let's make a splash for WaterAid!

As many @one Alliance teams, suppliers and partner companies as possible are being encouraged to take part in the 10th Rutland Regatta on 16 June and splash the cash to raise funds for WaterAid.

Everyone is encouraged to down tools and get involved, whether in races on the water or networking with colleagues on dry land.

The more people and teams who enter the races and get stuck into the on-land events, the more money we can raise for this worthy cause.

Swap PPE for life jackets and gather your colleagues together for the popular kayak and raft building races, or get your hard hat thinking caps on to come up with a design for a concrete or cardboard boat.

This year Zorb Balling will also be on offer – an exciting opportunity to walk on water. However, there are plenty of land-based activities for you and your team to have a go at.

Last year we raised £64,000 for WaterAid – this year we'd like to smash that record.

It's only £50 to enter a team – £50* can provide three people with access to a long-lasting supply of safe water.

To enter your team or for further details, please contact Caroline Brown at cBrown2@anglianwater.co.uk

*** £15 can help provide one person with access to safe water. (WASHCost and WaterAid, 2014)**

