

FUTURE WATER ANNUAL LIAISON MEETING

APRIL 2024

NWG TEAM

John Murray – Commercial Manager– Procurement (CAPEX)

Lily Craw – Category Manager (CAPEX)

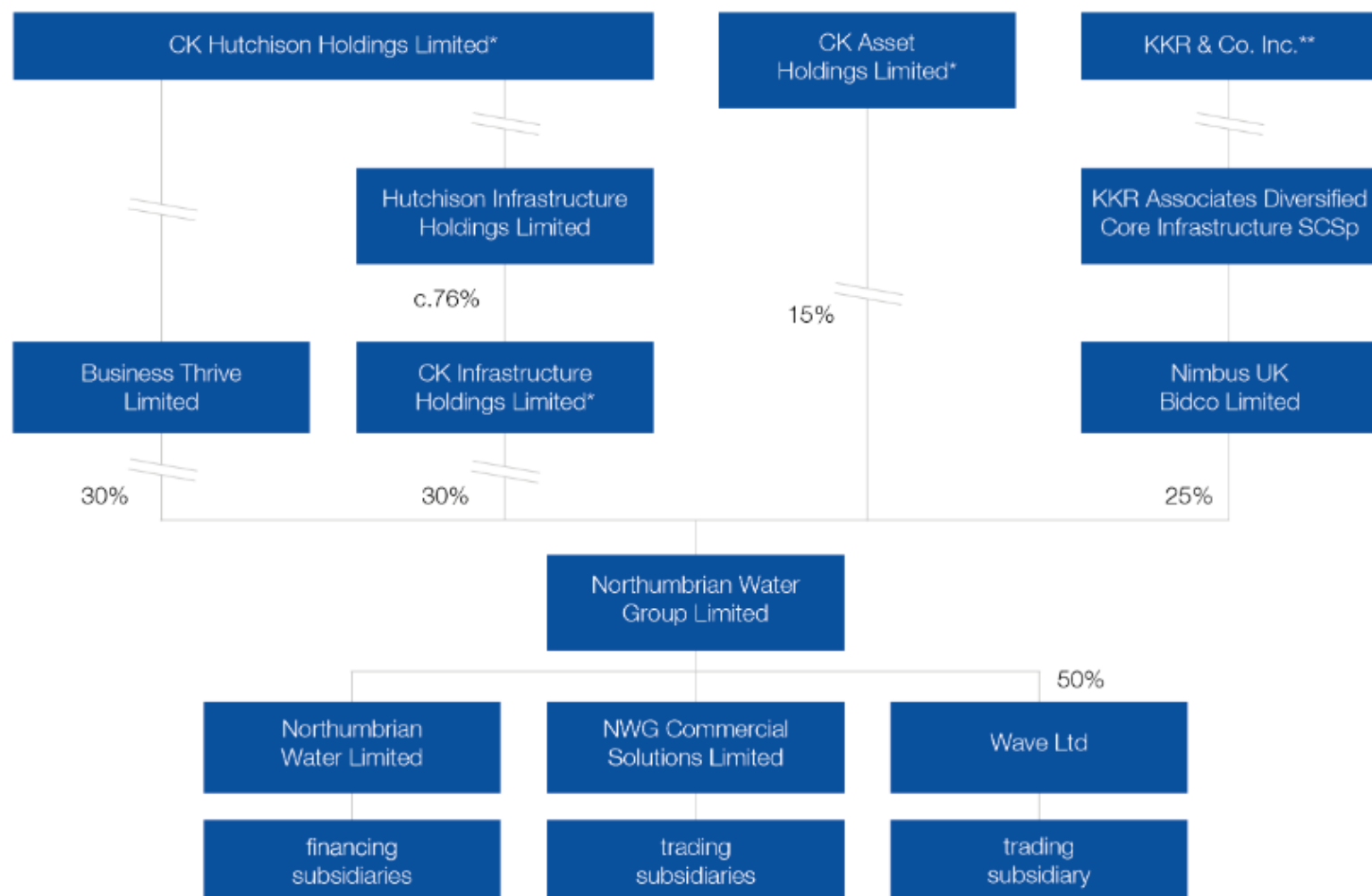
Andriy Volkov – Category Manager (OPEX)

Crawford Winton – Regulation Manager

Lauren Briggs – Innovation Facilitator

STRUCTURE

Group structure



*Companies listed on The Stock Exchange of Hong Kong Limited

**Companies listed on the New York Stock Exchange

OUR COMPANY

THE NORTHUMBRIAN WATER GROUP



WATER

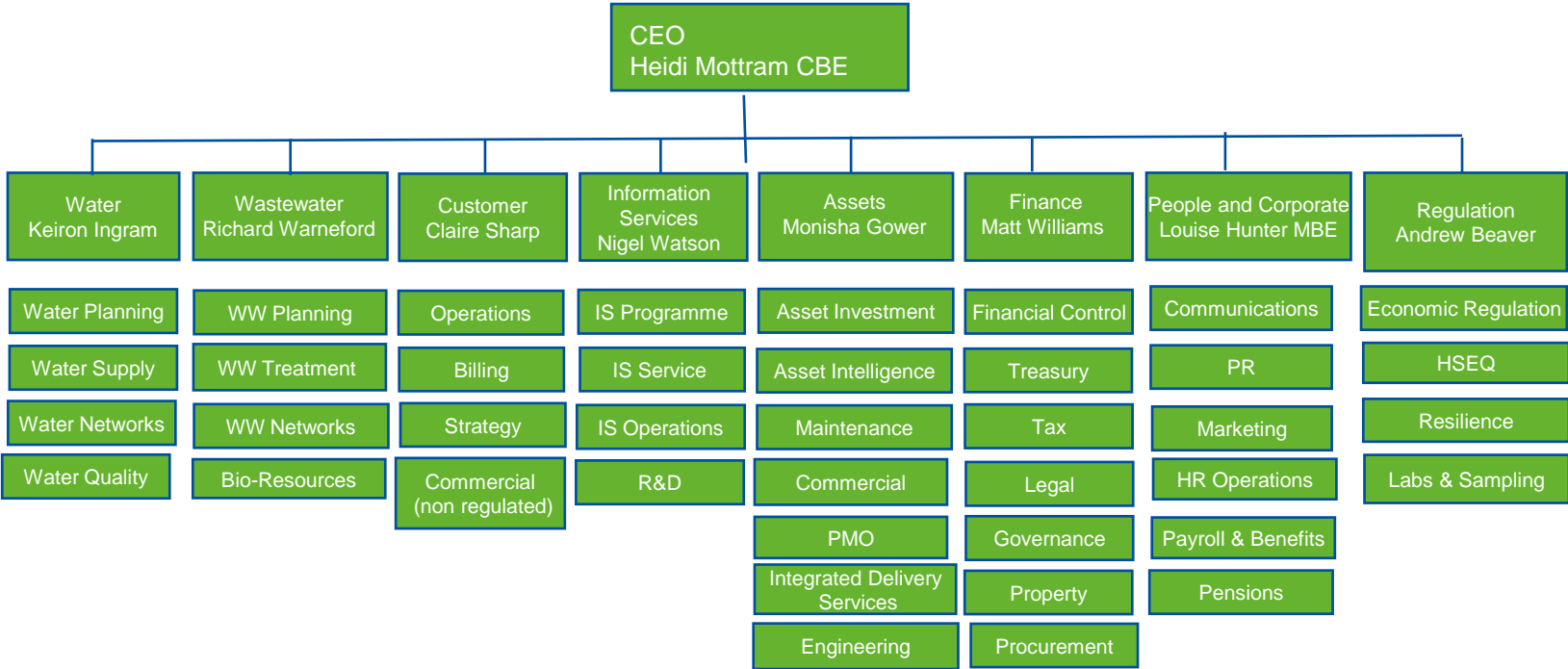
44 impounding reservoirs
57 water treatment works
344 water pumping stations
338 water service reservoirs
25,545km water mains (16,000 miles)

SEWERAGE

418 sewage treatment works
765 sewage pumping stations
29,724km sewers (18,000 miles)

Customer focused • Results driven • Ethical • Creative • One team

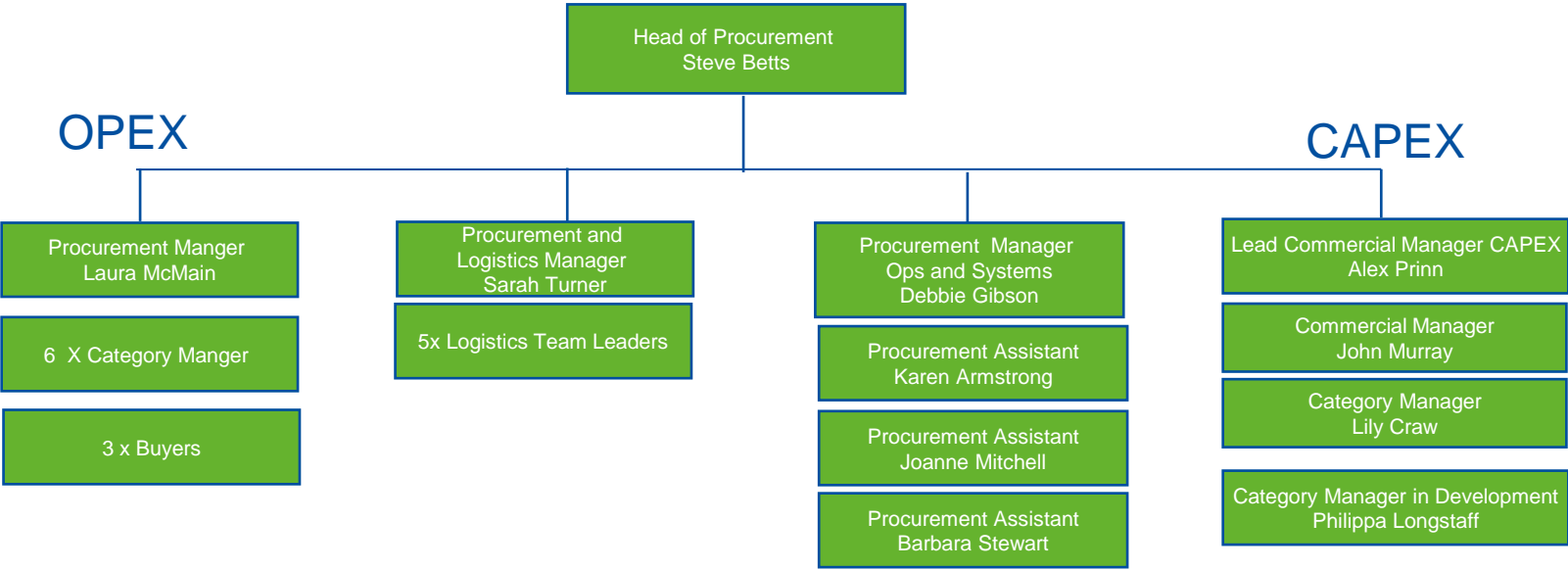
NWL EXECUTIVE LEADERSHIP TEAM



NWL PROCUREMENT TEAM

OPEX

CAPEX



- Chemicals
- Waste
- Information Services
- Telecoms
- Labs and Sampling
- Health & Safety
- Corporate
- Facilities
- Insurance
- Customer
- Professional Services
- Transport
- Human Resources
- Marketing and Comms

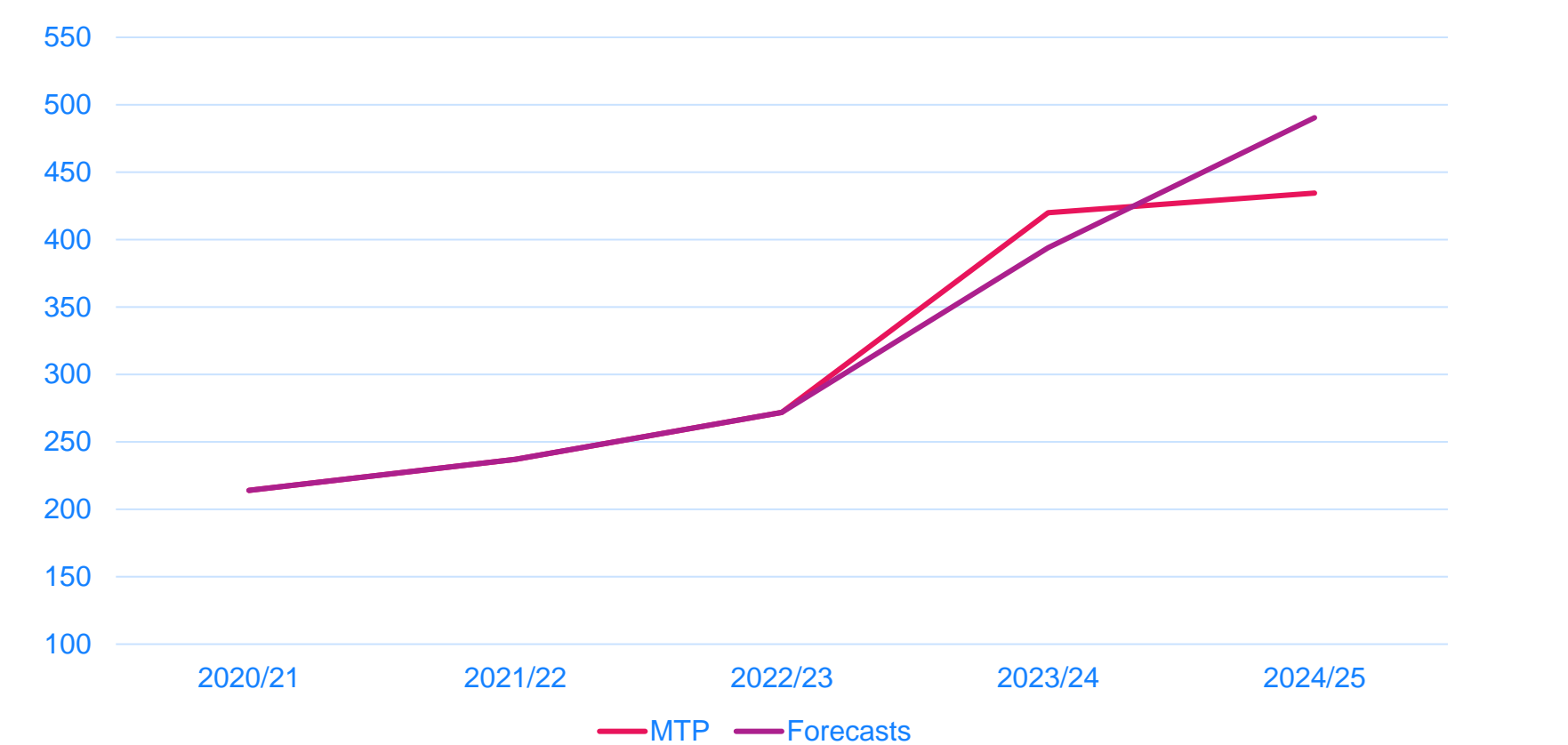
- Water Pipes and Fittings
- Valves and Hydrants
- Water Meters
- Boundary Boxes
- Aggregates
- Logistics Service
- Distribution Materials
- Plumbing Fittings
- Bottled Water
- PPE

- CAPEX Framework Contractors and Consultants
- Operational Contractors (Water and Sewerage R&M)
- MEICA
- Procurement Operations Support

CAPEX UPDATE

Stuart Smith

AMP7 CAPEX
LATEST FORECAST OF AMP7 CAPITAL PLAN REMAINS A CHALLENGE



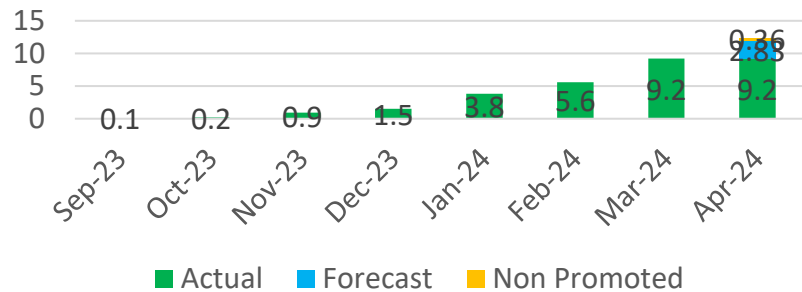
AMP7 CAPEX

CURRENT MANAGEMENT ACTIONS

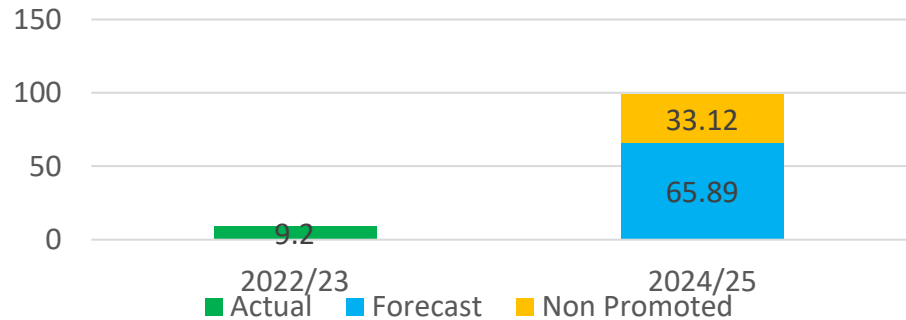
Management Action	Methodology	Owner	Commentary
1. Intelligent Client	Challenging the need and adopting the totex hierarchy approach to solution development	Tactical planning	Reduced opportunity given lifecycle stage of portfolios
2. Delivery Optimisation	Optimise delivery efficiencies through use of in-house integrated delivery teams	IDS	
3. Robust Risk Management	Increase the value of risk budgets being released following expiration of threats to reduce exposure more expediently	Capital Delivery/IDS	Reduction in risk for Phase1c (cleaning Derwent South Main) and Shildon included
4. Delivery Opportunities	Convert 50% of identified delivery opportunities	Capital Delivery/IDS	
5. Overhead Reduction	Reduction in project and contract overheads versus construction spend. A 10% reduction is being targeted	Capital Delivery/IDS	Updated analysis to be undertaken once current outturn contract analysis complete.
6. Control Decision Points	Schedule of all remaining projects with key decision points.	Tactical planning/PMO/ Capital Delivery/IDS	Re-phasing options if required

Capital Delivery AMP8 Acceleration Update

AMP8 Acceleration £120m



AMP8 Acceleration £120m



OFWAT Approved projects:-

- Concept design activities including land and planning, site visits and surveys, environmental studies, hydrology and hydraulic modelling, stakeholder engagement and optioneering are ongoing.
- Working with the Regulation team to provide data to support OFWAT APR 24.
- Review undertaken of OFWAT approved (WMP) schemes to assess impact on target spend and deliverables by Mar-25 to facilitate discussions with the Regulation team.

Statutory (Low regrets) categories:-

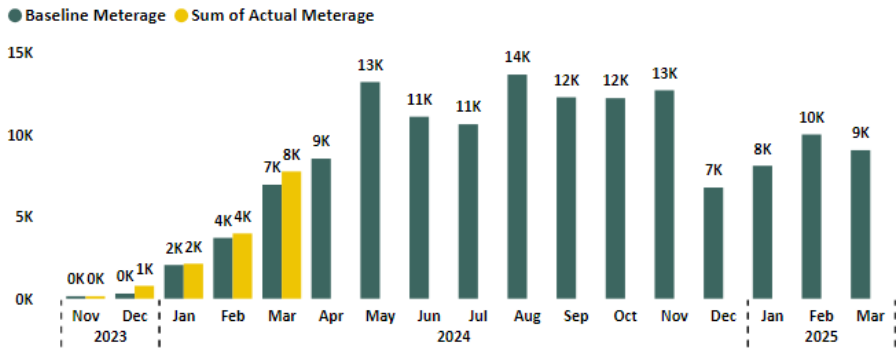
- 12 out of 22 statutory categories are through GW1 and are now progressing through Concept Phase.
- For the remaining categories, project briefs (solution optioneering report) are being developed for GW1 sign off. Approx. 80% of the overall low regret category will include projects for GW1 sign off by the end of Apr 24.

Planned Spend Profile: -

- A review is underway to re-baseline the planned spend profile for FY24/25. The review will also assess the programme output, which will be delivered against the revised profile.

Integrated Delivery Services AMP8 Acceleration Update

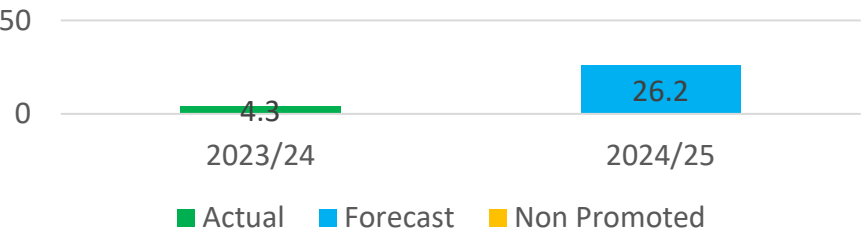
AMP8 Mains Renewal - Meterage



Main Renewal:

- Construction activity continues across all areas: Essex, Suffolk & Northumbrian.
- c14.8km of main delivered to date.
- Tracking 1.6km ahead of programme.
- APG approval pending for "Loud" scheme in April.
- The remaining Northern scheme (Park End) is schedule to achieve May's APG for approval.
- All contract partners have now commenced delivery.
- £4.3m delivered for 2023/24 with the remaining investment planned for Yr5
- The Programme Team are currently forecasting £30.5m to deliver the required meterage.

AMP8 Mains Renewal – Cost Forecast



THANK YOU

REGULATION UPDATE

Crawford Winton
Regulation Manager

PROSPECTS FOR PR24

CONTENTS

AMP7: Challenging times...

AMP7 to date: 2020-23

- Industry is overspending FD totex (Industry is 7% overspending for 20-23)
- Industry is in net ODI penalty (only 4 companies outperforming)
- Thames Water financial difficulties
- Storm overflow reporting has a high media profile and has become a political issue

Storm overflow spill data shows performance is totally unacceptable

[Environment Agency](#), 31 March 2023 - [Environment Agency](#)



Environment Agency logo

CONTENTS

Northumbrian Water – EA Three Star Company in 2022

Water and sewerage companies

Environmental Performance Assessment 2022



For a version of this document in an accessible format, and for individual water and sewerage company data reports please visit:

<http://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2022>

Note: discharge permit compliance is a core metric, required to be green for a water company to achieve a 4 star performance rating

Metric and units ¹	Total pollution incidents per 10,000km ² (actual)	Serious pollution incidents – actual number	Self-reported pollution incidents % ³	Discharge permit compliance ⁴ % (failing sites)	Satisfactory sludge use and disposal %	WINEP ⁵ scheme delivery on time %	Supply Demand Balance Index (SDBI) score	Performance star rating (out of 4) ¹
Anglian Water	33 (255)	11	73 (83)	98.6 (12)	99.96	99.8	100	★★☆☆
Northumbrian Water	20 (60)	0	91 (92)	98.9 (2)	100	100	100	★★★☆☆
Severn Trent Water	21 (193)	1	87 (93)	99.3 (5)	100	100	100	★★★★
Southern Water	90 (358)	5	90 (95)	98.2 (6)	100	100	100	★★☆☆
South West Water	62 (108)	2	78 (87)	99.4 (2)	99.14	99.6	86	★★☆☆
Thames Water	30 (331)	17	74 (94)	99.5 (2)	100	95.2	100	★★☆☆
United Utilities	16 (126)	0	88 (90)	98.5 (6)	98.93	100	100	★★★☆☆
Wessex Water	31 (110)	5	92 (97)	99.4 (2)	100	100	100	★★☆☆
Yorkshire Water	22 (117)	3	77 (95)	99.7 (1)	99.91	100	100	★★★☆☆
Sector - England	31 (1,658)	44	82 (92)	99.0 (38)	99.79	99.5	98.4 (average)	
Dŵr Cymru Welsh Water	25 (89)	5	69 (46)	98.5 (9)	100	100	100	★★☆☆

Red Significantly below target Amber Below target Green Achieved target or better R A G Red, amber, green metric thresholds

CONTENTS

Ofwat – Performance Report 2022/23 – No leading companies

Company	Customer satisfaction ¹	Priority services	Leakage ¹	Per capita consumption ¹	Supply interruptions ¹	Drinking water quality ²	Mains repairs	Unplanned outage	Internal sewer flooding ¹	Pollution incidents (category 1-3) ¹	Sewer collapses	Treatment works compliance ²	Categorisation of performance
Leading													● Top performer
Average													At or better than performance commitment level
Hafren Dyfrdwy													Poorer than performance commitment level
Northumbrian Water									●	●			Poorer than performance commitment level
Severn Trent Water										●			Poorer than performance commitment level
South West Water									●				Poorer than performance commitment level
United Utilities										●			Poorer than performance commitment level
Wessex Water					●								Poorer than performance commitment level
Affinity Water									-	-	-	-	N/A for water only companies
Portsmouth Water					●				-	-	-	-	N/A for water only companies
South Staffs Water					●								N/A for water only companies
SES Water					●				-	-	-	-	N/A for water only companies
Lagging behind													
Anglian Water													
Dŵr Cymru									●				
Southern Water													
Thames Water													
Yorkshire Water													
Bristol Water									-	-	-	-	
South East Water									-	-	-	-	

¹ For these performance commitments we consider that comparative assessment can drive improvements among the best performers. We therefore identify 'top performers' relative to the sector where applicable. See individual performance commitment pages for top performer criteria.

² For these performance commitments we assess performance relative to the performance commitment deadband within which companies do not incur underperformance payments.

CONTENTS

NWL Key themes for PR24 (2025-30, AMP8)

- £3.5bn Capital programme – driven by £2.4bn of enhancements
- Bill increase of 19% plus inflation over 2025-30

Long term planning (25 years) significant expenditure anticipated for:

- Water Resources Management Plan WRMP
- Drainage & Wastewater Management Plan DWMP

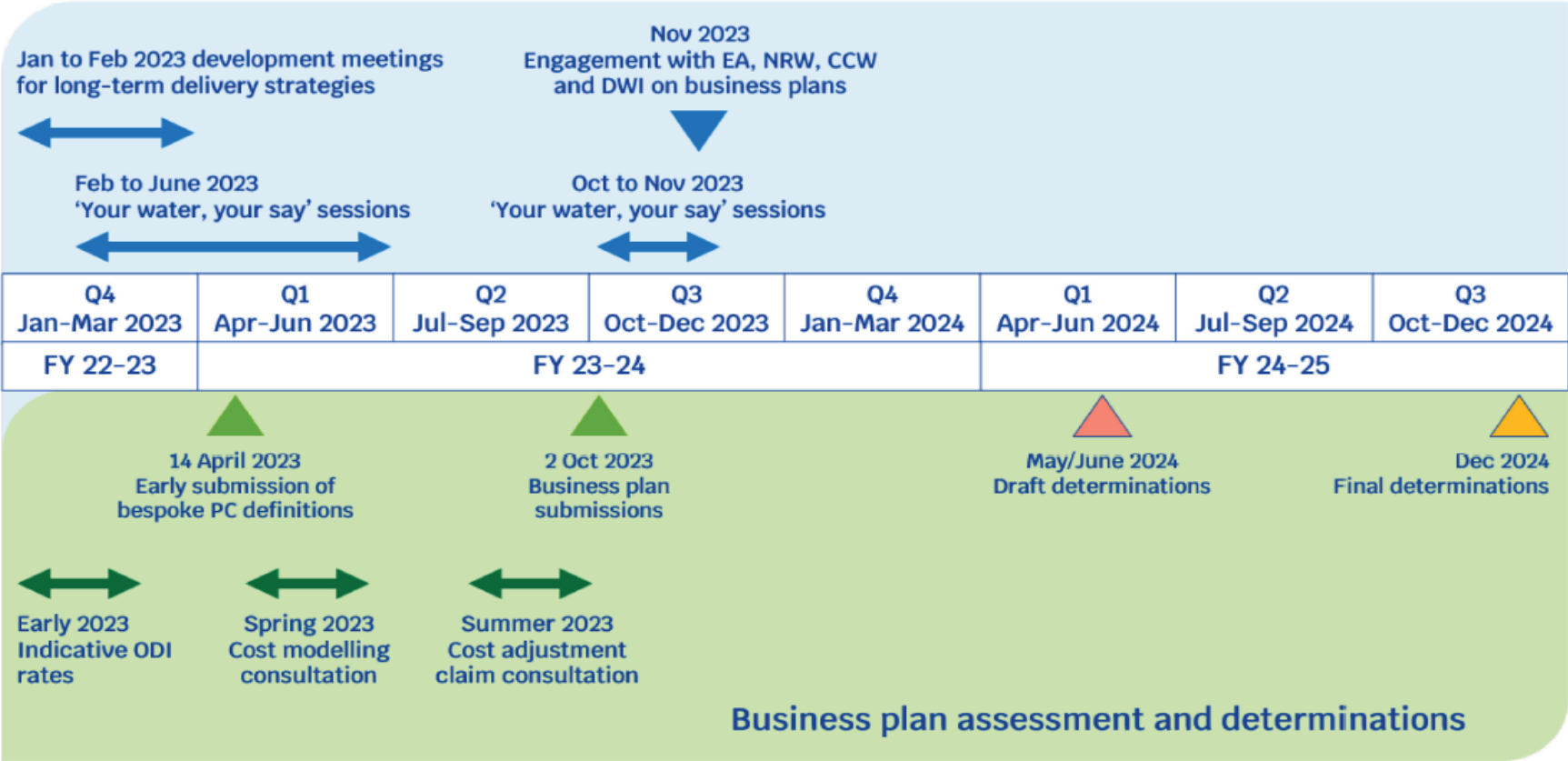
Specifically:

- Suffolk Water Resources
- Storm Overflows
- Nutrient neutrality WINEP (still uncertainty)
- Asset maintenance backlog

NWL AMP8 capital programme could increase from current £300m pa to over £700m pa

CONTENTS

PR24 Update – Draft Determinations in ‘early June’



THANK YOU

PROCUREMENT UPDATE

More information can be found on the NWG supply chain website:

<https://www.nwg.co.uk/responsibility/supply-chain/>

CAPEX PROCUREMENT

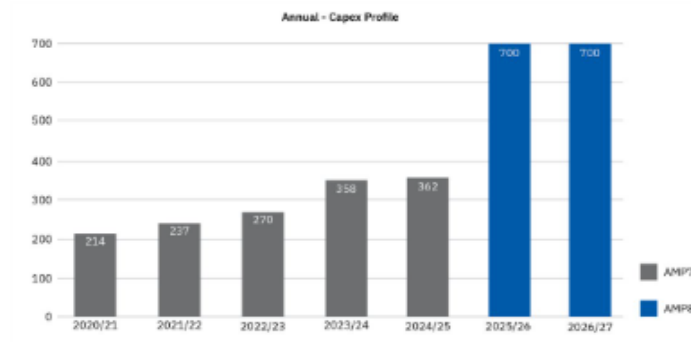
John Murray
Category Manager CAPEX

AMP8 DELIVERY OPERATING MODEL AND PROCUREMENT PACKAGES

AMP8 TRANSFORMATION CASE FOR CHANGE

An unprecedented challenge faces the water industry.

- AMP8 represents a significant step up in spend.
- Resource pool already stretched.
- Challenges attracting resources to region.
- Creating more supply chain capacity.
- Early engagement / mobilisation.
- Internal capability and capacity is just as important.
- Imperative we learn from industry lessons.

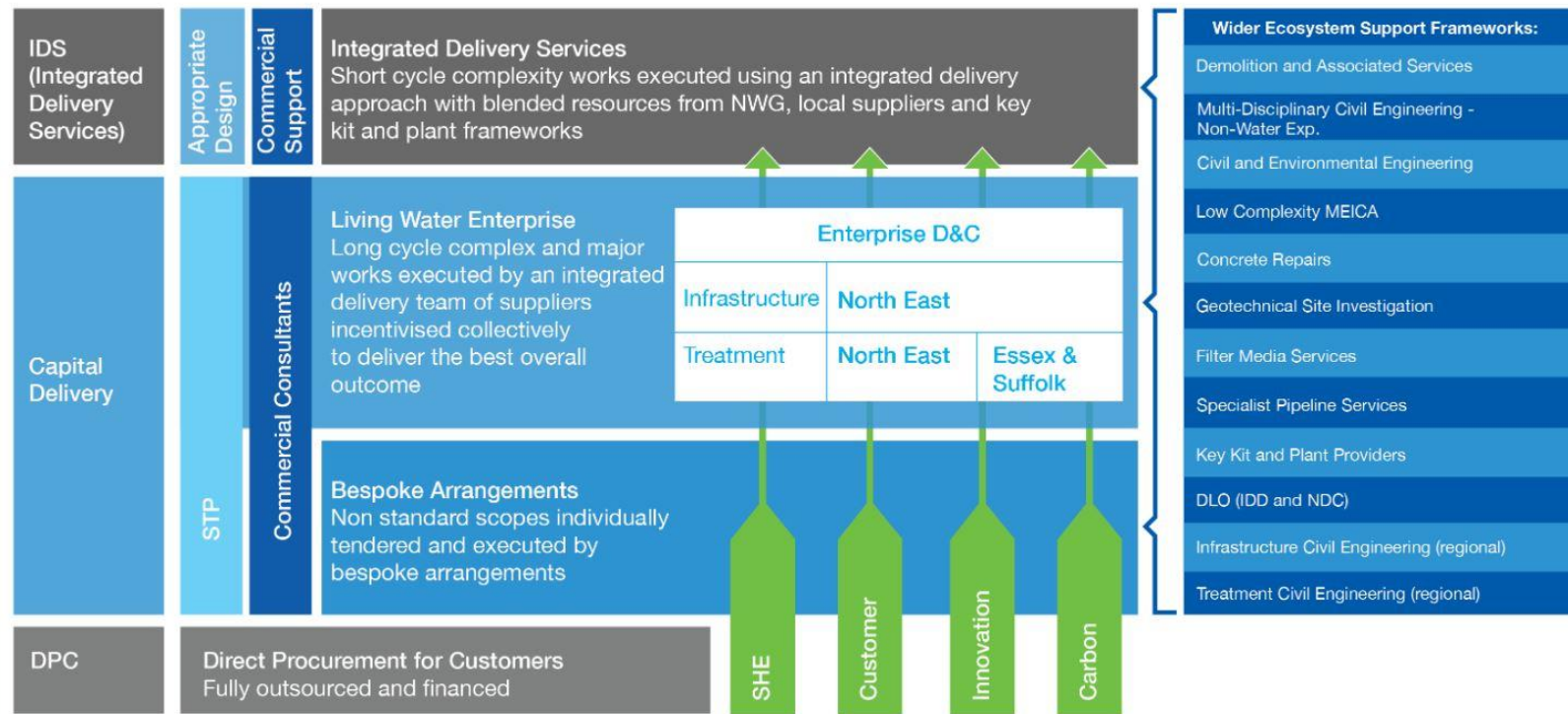


Opportunity to think and do differently, to:

- Drive sustainable solutions net zero and environmental improvements.
- Invest more and create greater value in the regions we serve - creating economic and social growth.
- Create a high performing delivery eco-system aligned to deliver the best value solutions and outcomes for our customers.
- Invest in our people and the wider workforce, to improve diversity as we build on our existing great people and bring in new talent from outside of the water sector while creating a pipeline of talent for succession planning, making us the go to great place to work.

LIVING WATER ENTERPRISE

NWG AMP8 DELIVERY MODEL



AMP8 DELIVERY

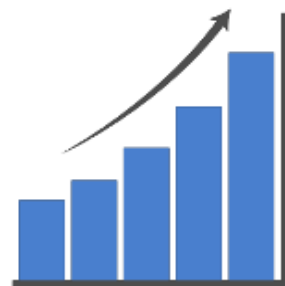
INTEGRATED DELIVERY SERVICES

IDS

PURPOSE AND OBJECTIVES

Integrated Delivery Services purpose is to deliver short cycle works executed using an integrated delivery approach with blended resources from NWG, framework and local suppliers, and key kit and plant frameworks.

- Form integrated teams to drive efficient 'best value' delivery.
- Be innovative not only in design but also approach.
- Create lasting and effective delivery partner relationships.
- Help NWG attain ambitious goals.
- Create career pathways and allow people to thrive.
- Enhance our customer focused reputation.



FA08-02 WIDER ECOSYSTEM FRAMEWORKS

NWGW
living water

11 NEW Frameworks
with
33 Contractors

Key Highlights

Turnover Range



The frameworks bring a range of different sized organisations meaning we can engage best contractor for the job.

New and Existing



The frameworks include both existing partners to NWL and new partners – bringing increased capacity and new ways of working.

New to Water Sector



11 organisations appointed who have not working in the water sector previously – bringing additional capacity.

Local Contractors



Local – with an office location within our operating regions.

CECA Members



CECA North East and CECA Southern member (or other region)

Direct Delivery



94% have a direct delivery model (with more than 50% directly delivered)

Framework Reference	Framework Title	Operating Region	Estimated Value (per annum)	Number of Contractors
FA08-02 – A1	Infrastructure (£0 - £2.5m)	North East	£20m - £40m	4
FA08-02 – A2	Infrastructure (£0 - £5m)	North East	£20m - £40m	4
FA08-02 – B1	Treatment (£0-£2.5m)	North East	£20m - £40m	4
FA08-02 – B2	Treatment (£0-£5m)	North East	£20m - £40m	4
FA08-02 – C1	Treatment (£0-£2.5m)	Essex and Suffolk	£7.5m - £15m	3
FA08-02 – C2	Treatment (£0-£5m)	Essex and Suffolk	£7.5m - £15m	3
FA08-02 – D	Demolition	North East	£0 - £2.5m	2
FA08-02 – E	Demolition	Essex and Suffolk	£0 - £2.5m	2
FA08-02 – F	Multi-Disciplinary – Non Water Experience	North East	£0 - £25m	6
FA08-02 – G	Multi-Disciplinary – Non Water Experience	Essex and Suffolk	£0 - £15m	5
FA08-02 – H	Civil and Environmental Engineering	Both Regions	£0 - £5m	3

AMP8 DELIVERY LIVING WATER ENTERPRISE

INTRODUCING THE LIVING WATER ENTERPRISE OVERVIEW



The Living Water Enterprise exists to optimise delivery of Northumbrian Water Group's complex long cycle programmes. It's a fully integrated, highly collaborative delivery route which works seamlessly to achieve the best overall business outcomes.

The Living Water Enterprise will:

- Think and act as a single entity, focused on outcomes and mutual goals;
- Incentivise performance to make sure collective success is the priority, not financial returns for any individual party;
- Embed TOTEX principles across the Enterprise from the outset;
- Place Delivery Optimisation as one of its key priorities, and will consider this at a programme level to so that we operate a best athlete principle rather than rigid supplier boundaries.

LIVING WATER ENTERPRISE OUR PARTNERS



OPEX PROCUREMENT

Andriy Volkov
Category Manager Sourcing

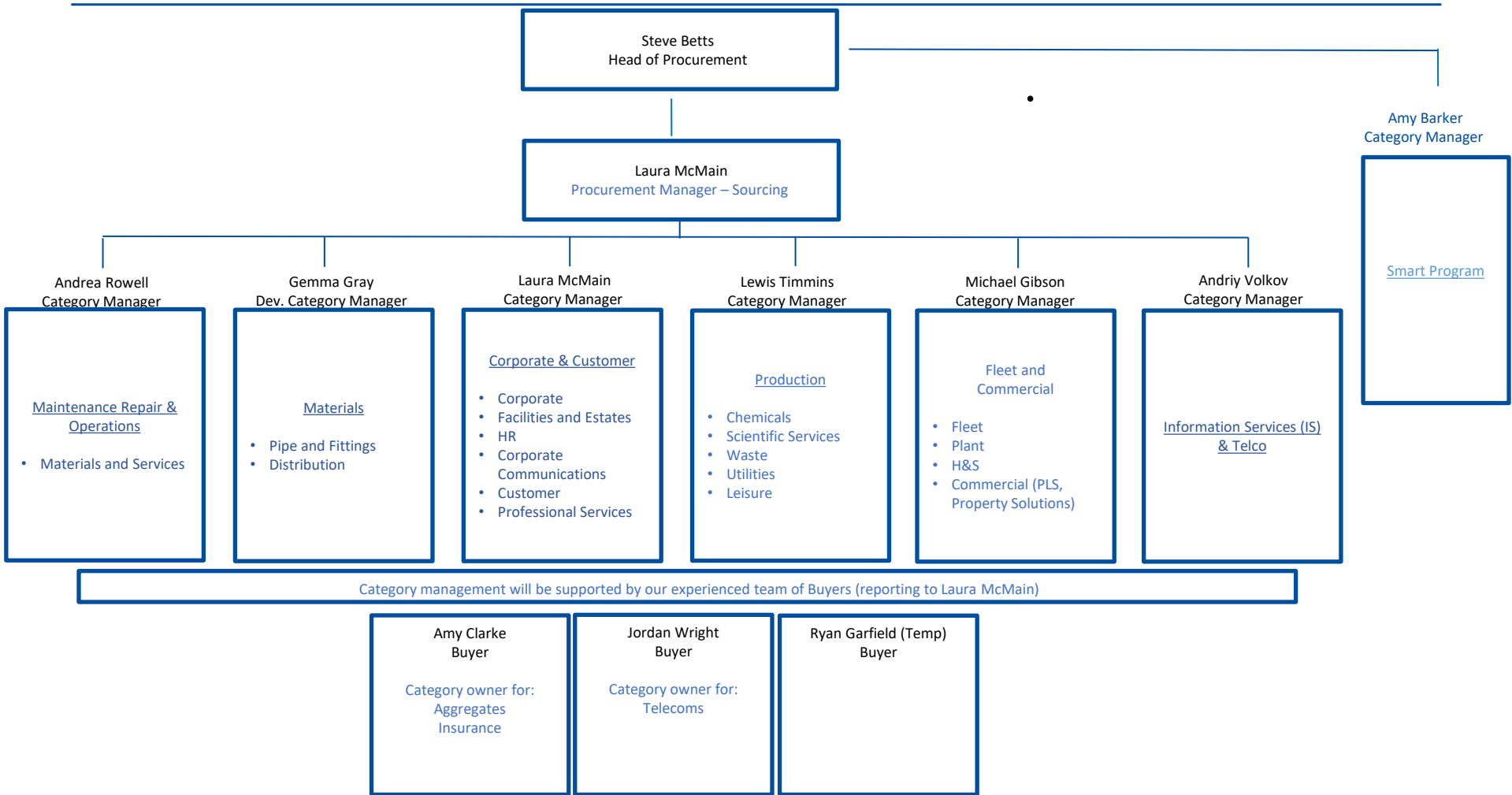
OPERATIONAL PROCUREMENT – SOURCING TEAM

WHO ARE WE?

- Team of 11 covering a spend of circa £300 million
- Utilising category management model with a focus on world class tendering
- Ensuring we stay informed about market development's and supplier innovation
- Introduced more robust contract and supplier relationship management
- Active collaboration with other water companies (NCSG* and joint sourcing)
- Procurement activity for Smart metering Programme started in early 2023
- Key Focus on savings. In 2023 we achieved £6m efficiencies
- Ultimate aim of becoming a Trusted business commercial partner, bringing positive challenge, innovative solutions and tangible value

SOURCING TEAM STRUCTURE

CATEGORIES OF SPEND WE COVER



OPERATIONAL PROCUREMENT – SOURCING TEAM

SOME OF OUR UPCOMING ACTIVITY

Category Area	Activity	Timescale
Chemicals	AntiForm	Completed within next 3 months
Waste	Biosolids Recycling	Completed within next 3 months
Customer	Bill Printing	Completed within next 3 months
Customer	Postage	Completed within next 3 months
Customer	AMP8 Water efficiency Programme – water audits	Completed within next 6 months
HR	Temporary staffing	Completed within next 6 months
Distribution Materials	Boundry Boxes	Completed within next 6 months
Distribution Materials	Alternative water supplies	Completed within next 6 months
Plant Hire	Crane Hire	Completed within next 6 months
Security	Security Guarding	Completed within next 6 months
Telecomms	Mobile network	Completed within next 6 months
IS	IS Contractors	Completed within next 6 months
IS	Smart Sewers	Completed within next 6 months
IS	Managed SOC	Completed within next 6 months

RESPONSIBLE PROCUREMENT UPDATE

RESPONSIBLE PROCUREMENT

WHERE ARE WE



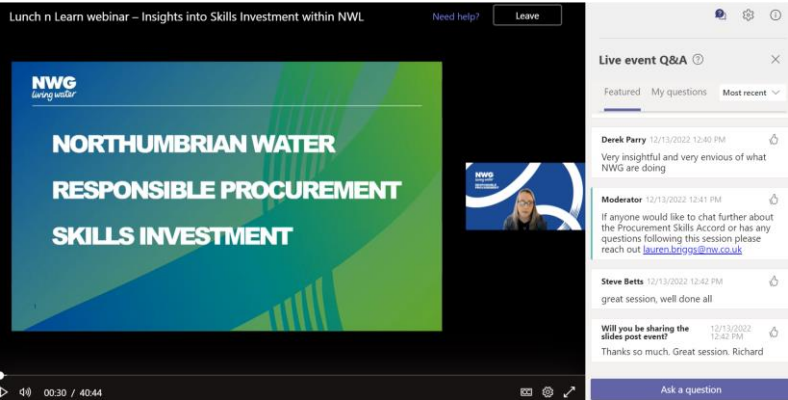
Responsible Procurement Strategy:

- Aligning NWL goals with Sustainable Development Goals (SDGs)
- Impact Initiative 7
- Continuous improvement – undertake key activities around themes within the supply chain



<https://www.nwg.co.uk/responsibility/supply-chain/responsible-procurement/>

RESPONSIBLE PROCUREMENT END OF YEAR SUMMARY



CASE STUDY: ENVIRONMENT



World Fuel Services – Renewable Diesel

WHERE?
Howdon and Bran Sands

WHEN?
Quarter four 2022 and ongoing

CASE STUDY: ENVIRONMENT World Fuel Services – Renewable Diesel

THE CHALLENGE

We have challenging targets to reduce carbon emissions, we are committed to reducing the impact that our business has on our atmosphere and our customers want us to do net zero as efficiently as possible. We have a focus upon green energy as much of what we do is energy intensive.

This leads us to look at a range of activities on optimisation and efficiencies (examples include anaerobic digestion sites to running pumps at the most efficient time). We produce hydroelectricity, have several large-scale solar sites, use anaerobic digesters and have direct agreements with generators of offshore wind power.

To carry on with this work it was identified that our HGV fleet could look to use renewable diesel rather than white diesel resulting in a 90% reduction in greenhouse gas emissions.

THE MEASURES

There was a business assessment carried out on the viability which included a small trial at a site. Once agreed two 30,000 litre tanks were sourced and positioned at the two sites identified (Howdon and Bran Sands). A plinth was created for the site at Howdon to ensure the stability of the tanks. A project manager supported the scheme from inception to make sure all stakeholders were kept up to date with the plan.

A tendering exercise was carried out to have a selection of fuel providers who could provide a fixed price for renewable diesel price over a fixed period of time. The certification scheme verifying the renewable diesel was accepted by the business. The first delivery by World Fuel Services of renewable diesel was made in November 2022 and the first renewable diesel was used in our vehicles later that month.

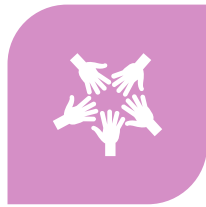
THE RESULTS

The plan is to work with renewable diesel for the foreseeable future and look to see if we can widen its uses.

As of July 2023, we have used in our vehicles 431,580 litres of renewable diesel. Had we of used white diesel this would have emitted 1,084,128 kg of net CO₂. Using renewable diesel, we emitted 108,326 kg of net CO₂ which is over a 90% reduction in our net CO₂ output.

RESPONSIBLE PROCUREMENT MEASURING SOCIAL VALUE

Including Social Value in NWL tenders:



THEY CAN HELP US
MEET NWL VALUES.



TO GAIN ADDED
VALUE FROM THE
CONTRACTS WE HAVE



TO HELP DRIVE THE
RESPONSIBLE
PROCUREMENT
STRATEGY



1. Jobs – promote local skills and employment
2. Growth – supporting growth of responsible regional business
3. Social – healthier, safer and more resilient communities
4. Environment – decarbonising and safeguarding our world
5. Innovation – promoting social innovation

RESPONSIBLE PROCUREMENT
MEASURING SOCIAL VALUE



INNOVATION UPDATE

INNOVATION DASHBOARD

APRIL 2024

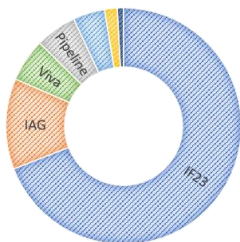
NORTHUMBRIAN
WATER *living water*

INNOVATION CULTURE

27.2% employees involved (target 25%) (+3%)

>500 Training hours (=)

IF23 IAG Pipeline Ofwat R&D Viva IQ23



158 Innovation Ambassadors (+42)

43 external speakers to inspire Ambassadors (+6)

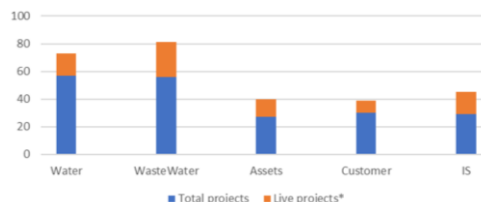
Innovation Ambassadors by Directorate



INNOVATION PIPELINE

81 live projects

£90M/annum potential value



Discovery Define Develop Delivery
Delivered Scale Closed Discontinued

EXTERNAL ENGAGEMENT

- 2900 attendees at IF23
- £170M potential IF23 project value
- 3.8M Social & media reach IF23
- 6000 readership of Innovation Connect
- 53 External Speaker Slots Apr23-24
- No1 for innovation in UK Water Sector*

* (British Water Survey 2022 and 2023)



EXTERNAL FUNDING - OFWAT

- £6.6M awarded in Breakthrough 3.
- 1 successful Transform bid, Stream
- 3 successful Catalyst bids (root defender, water literacy toolkit and hydro-powered concentric meter)
- £18.9M external funded since 2021
- 12 successful bids, #1 water co
- 164% vs contribution, #1 vs water cos
- 18.5% of total fund won by NWG

R&D PROGRAMME

- 29 live Core R&D projects
- NWG funding / total cost: £1.1m / £3.9m
- 30 UKRI funded academic projects
- Total grant value: £40.1m
- 50 NWG colleagues directly involved in R&D
- 15 current university collaborations
- 91 postgraduate students supported (26 live / 65 completed)
- 3 R&D projects into OFWAT WBC (£2.0m)
- 1 pending OFWAT bid (METREAU: £1.8m)

NORTHUMBRIAN
WATER *living water*

THE INNOVATION FESTIVAL

What is the Innovation Festival?

Our Innovation Festivals are big, loud, exciting and very unique events where we gather some of the greatest and most innovative minds from the worlds of business, science, tech, engineering, utilities and customer services and get them to tackle real world problems together in a series of Sprints*.

To understand the scale, why not take a look at the festival from a walk through perspective [here](#). Thanks to our friends at Matterport for producing the scan or check out our A-Z of all things Innovation Festival [here](#)!

What does it involve?

Each year at NWG Innovation Festival HQ, we take a selection of business challenges and issues currently facing our industry, as well as look at wider global issues that impact everyone, like climate change and water poverty. We bring together people from all over the globe with different skills and knowledge and we work together to produce solutions and viable outcomes - all in five days or less*.

What is a sprint*?

A sprint gives teams and groups a shortcut to learning and idea creation without building and launching. The sprint is usually a five-day process for answering critical business questions through design, prototyping, and testing ideas with customers. Watch the short video below which details the sprint methodology based on the work of Jake Knapp. Watch this short video summarising the process of a Sprint here:

[Sprint – Book Summary](#)



YOUNG CITIZENS WORK EXPERIENCE FESTIVAL

BRAND NEW FOR 2024

In 2024, Northumbrian Water is set to break new ground by hosting a unique **Young Person's Festival** in tandem with their renowned Innovation Festival.

This ground-breaking initiative aims to provide young individuals with **invaluable work experience** at Northumbrian Water while immersing them in the dynamic and enjoyable atmosphere of the festival.

Participants will engage in a wide-range of activities including design sprints on such **critical issues** such as climate change, learning valuable skills for the next stage in their lives.

This extraordinary opportunity not only fosters innovation but also **empowers the younger generation to play an active role in shaping a brighter, sustainable future.**

This would be a perfect opportunity for any apprentices in your workplace or those who have just started their career within your organisations. Why not extend the invite to them?



THIS YEAR'S THEME IS

SPEED AND SCALE

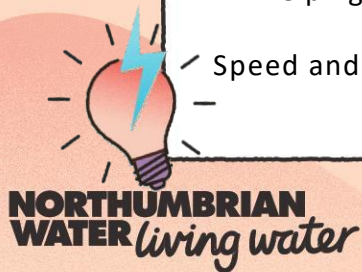


We are great at generating brilliant ideas and want to bottle up all that 'can do' spirit generated during the festival week so we can move those ideas into our business at speed.

To do this we want to create the right environment and processes so we can increase our speed of moving these ideas forward and then to be able to scale the ideas which is where the true value from innovation is unlocked.

At Innovation Festival 2024, we are going to look at some existing ideas and accelerate progress and look at how we can even speed up the sprint process during the week using artificial intelligence tools, helping NWG to fast forward projects and encourage scale up the brilliant work already in flight.

Speed and scale is going to be brought to life across the whole festival, so pop your seat belt on, IF24 is taking off and hoping you will join us on the ride!



NORTHUMBRIAN
WATER *living water*

THANK YOU