

Grand Union Canal Transfer Market Engagement



Grand Union
Canal Transfer

Phase 1

Summer 2025



The Grand Union Canal Transfer

A vital new scheme to bring water from the Midlands to the Southeast

Scheme Type:

Transfer of recycled water and treatment to drinking water quality



Total length

161km

from Minworth to Luton



Maximum volume to transfer

115MI/d



A joint transfer project with three partners



AffinityWater



Key scheme elements

Standard specification water treatment works, pipelines, pumping stations, storage assets and civils work



Canal & River Trust has a history of transferring water to water companies



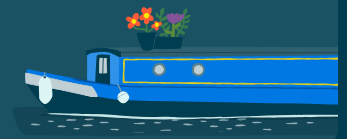
In the first wave of a strong pipeline of DPC projects coming to the market from the water sector



We are proposing a standardised scheme contract methodology with a fair allocation of risk and reward



Great opportunities to deliver environmental, social and economic benefits to the region



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Foreword

Thank you for your interest in working with us on the Grand Union Canal Transfer (GUCT) scheme.

This document will set out why the scheme is needed, the benefits it will provide, both for Affinity Water customers and those communities in which the scheme is delivered, and how we plan to deliver it.

Water is a precious resource that needs to be used wisely, to ensure there's enough for people and the environment now, and in the future. Using water responsibly means minimising leakage and maximising water efficiency in homes and businesses which are key priorities for us. We are also acting on how we provide water in the future. This means considering new ways of sourcing and using the water we have available and making sure it is delivered to our Affinity customers efficiently, with the care and attention to detail they expect of us.

The GUCT will be paid for, over time, by our Affinity Water customers, through their drinking water bills. It is vitally important that we deliver a scheme that protects our customers' drinking water supplies in the future and this means addressing the need to source water strategically, across our region, to keep our customers' taps flowing.

This scheme is a great example of cross-company collaboration and innovation to provide new strategic water resources for our region.

We've built strong working relationships with Severn Trent, our partner water company, and the Canal & River Trust, who own and manage the canal. We each play a fundamental part in delivering this scheme, reusing the existing waterways from the Midlands to the Southeast.

As our vision states – we're 'moving water together'.

This means that we'll be working collaboratively with our scheme partners to take pressure off increasingly stressed water sources like sensitive chalk aquifers – often described as the UK's rainforest – and design a scheme to deliver water, climate and community resilience while nurturing and protecting the environment. We're looking for innovative suppliers to get on board and help us make this new resilient source of water a reality, to set the bar for future water supplies across the country.

Thank you again for your interest in getting involved and helping us create a new sustainable source of water, that will help keep taps and rivers flowing for many generations to come.



Keith Haslett
CEO, Affinity Water

"In the coming decades, potential pressures on the availability of water mean that we, as a water industry, are going to have to work together, to make sure there is enough water in the future for all our customers, businesses, and to protect the natural environment. With this in mind, and to get ahead of any future issues, the GUCT is one of the first in a pipeline of schemes the industry is promoting, and we are proud to be partners in this truly innovative scheme."



Liv Garfield
CEO, Severn Trent

"Millions of people spend time on our canals, which connect the heart of our nation's towns and cities with the countryside. Still used by boats, as they have been for hundreds of years, these historic freight routes today provide a vital waterway and towpath network, connecting places, with a route for people and for wildlife, as well as somewhere to be active, or de-stress and be close to nature. By working with our partners in the water sector, our canal network is also ready-made to support the transfer of water around the country, to meet public demand and increase resilience of future water supply."



Richard Parry
CEO, Canal & River Trust

Engaging the market



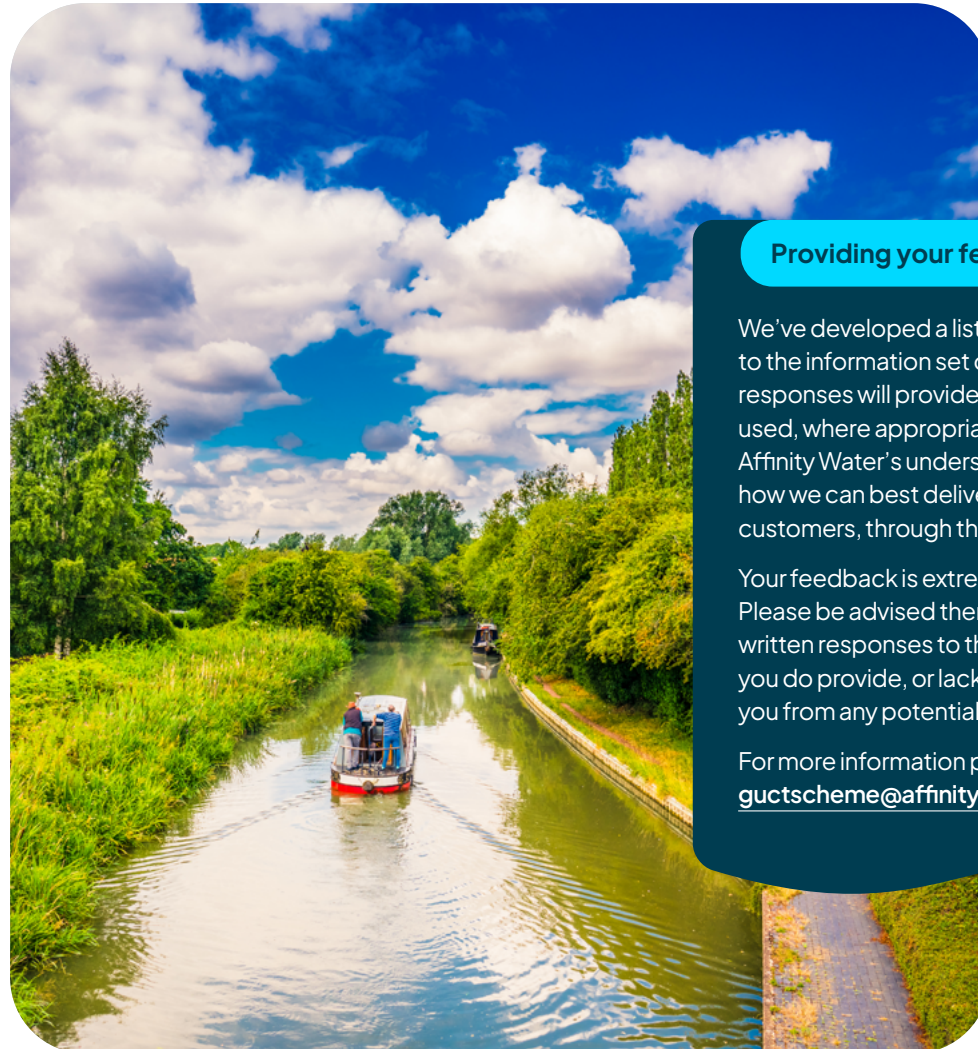
What is the purpose of this document?

As part of our ongoing preliminary market engagement activities for the Grand Union Canal Transfer (GUCT) scheme, we've produced this document to provide an overview of our developing procurement strategy. This builds on market feedback from previous engagement and the scheme's ongoing development.

The key purpose of this market engagement is to raise the profile of the scheme, to provide the opportunity for the supply chain to participate, and to seek feedback from the market, to enable us to structure a compelling procurement and commercial model.

We recognise the significant cost and effort of bidding in procurements of this nature, and that the market is selective in bidding for such projects. Our aim for this phase of our market engagement is to finesse our approach, to encourage participation in the procurement process.

We're continually evolving our thinking and value any questions, comments or concerns you may have as you read through this document.



Providing your feedback



We've developed a list of questions which relate to the information set out in this document. Your responses will provide valuable insight, and will be used, where appropriate, to inform and develop Affinity Water's understanding of the market and how we can best deliver value for money to our customers, through this innovative scheme.

Your feedback is extremely important to us. Please be advised there's no obligation to provide written responses to the questions. Any responses you do provide, or lack thereof, doesn't preclude you from any potential tender.

For more information please contact:
guctscheme@affinitywater.co.uk

Key information about the scheme

The GUCT is a vital new scheme to bring water from the Midlands to the Southeast.

It is a joint water transfer project between two water companies, Affinity Water and Severn Trent, and the Canal & River Trust charity, who are the owner and navigation authority of the canals in England and Wales.

The scheme aims to secure future drinking water supplies, protect the environment, ensure future water availability for canal navigation, and unlock investment in our communities, now and in the future.

The scheme will:



Strengthen the UK's water infrastructure and create a legacy of resilient water resources



Deliver water, climate and community resilience in the long term



Protect, care for and enhance the environment



Promote healthy communities through a sustainable supply of public drinking water



Sustain and protect existing historic features and settings along the canal



Enable economic growth through the creation of local jobs and new skills

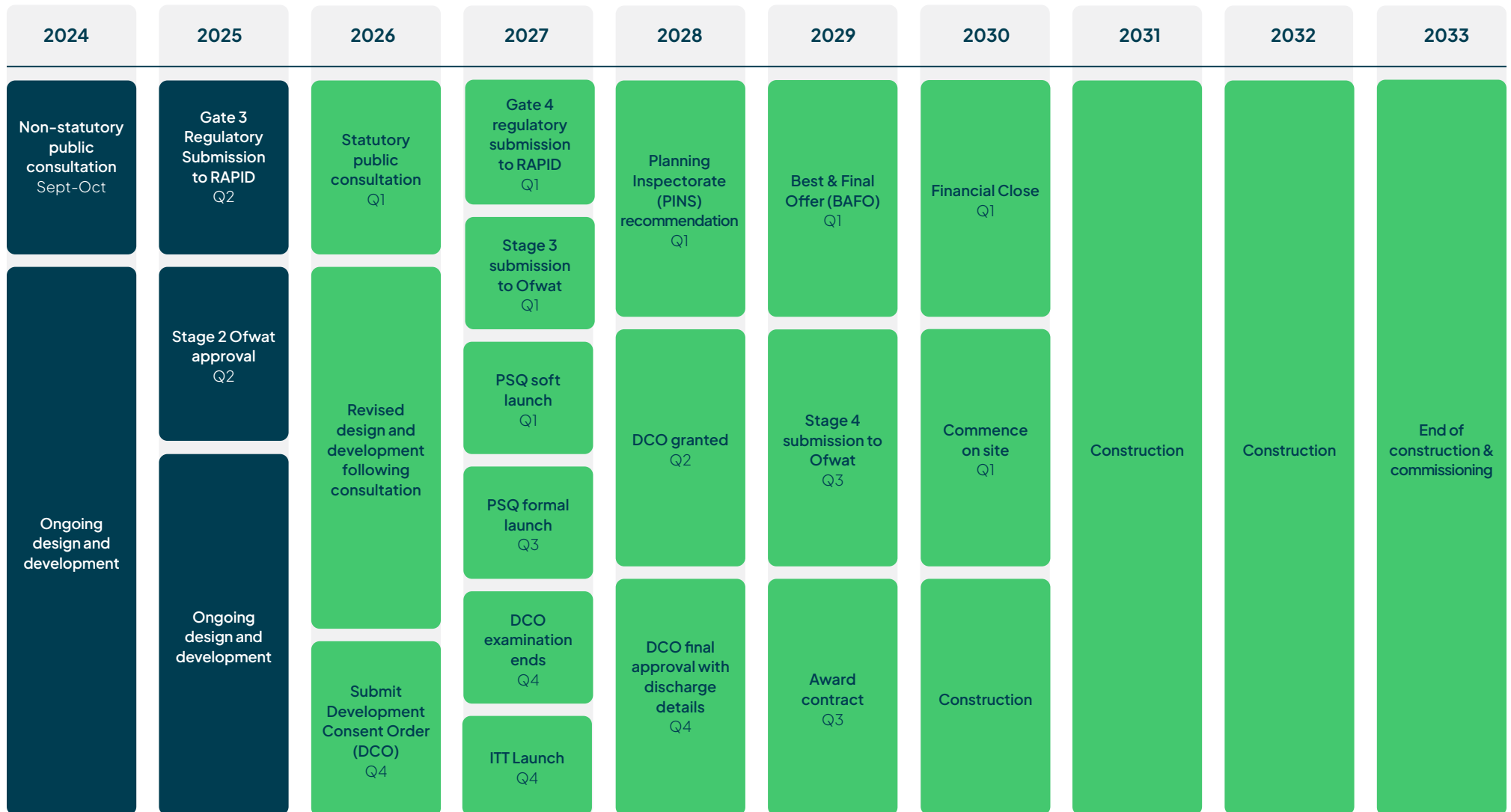


Create opportunities for strategic partnerships within the water sector



Overall project timeline

 Completed events
 Future events



Scheme background

Following the submission of the National Infrastructure Commission report: **'Preparing for a Drier Future, England's Water Infrastructure Needs'** in 2018, the Regulators' Alliance for Progressing Infrastructure Development (RAPID) was established to help accelerate the development of new water infrastructure and design future regulatory frameworks.

The RAPID team is made up of three water regulators, Ofwat, the Environment Agency and Drinking Water Inspectorate. It oversees the Strategic Resource Options (SRO) programme, identifying where and how water could be transferred to areas of water deficit in England.

The GUCT is part of the SRO pipeline of projects and forms part of **Affinity Water's Water Resources Management Plan, 2024** (WRMP24). The WRMP was approved by the Secretary of State for Environment, Food and Rural Affairs.

To find out more about the range of upcoming opportunities in the sector for investors and the supply chain, RAPID have produced an **investor pack**.

Major water infrastructure projects in PR24 final determinations

- Cheddar 2 reservoir and transfer
- Broad Oak reservoir
- Fens reservoir
- Lincolnshire reservoir
- Mendip Quarry reservoir
- New Arlington reservoir
- North Suffolk reservoir
- Rudyard reservoir and transfer
- South East Strategic Reservoirs option
- West Midlands raw water storage reservoir

- Bacton desalination
- Mablethorpe desalination
- Aylesford (Medway) and Ford (Littlehampton) water recycling
- London water recycling (Teddington DRA and Beckton)
- Hampshire transfer and water recycling
- Minworth water recycling
- Poole water recycling and transfer
- Severn Trent sources and transfer

- Grand Union Canal transfer
- Kielder SRO transfer
- Lower Thames to West London Reservoirs transfer
- Peterborough to Grafham transfer
- Severn to Thames transfer
- South Yorkshire sources and transfer
- Thames to Affinity transfer
- Thames to Southern transfer
- North West source and transfer
- Nottinghamshire mine water treatment and transfer
- West Yorkshire water treatment works



What does the scheme deliver?



For future drinking water supplies

Our water supply is under increasing pressure from population growth, climate change and the need to protect fragile ecosystems, and the Southeast is facing a possible shortfall of 449 million litres a day, by 2050. A lack of intervention now is forecast to result in future water deficits and imposed restrictions on water use. To maintain existing drinking water supplies and accommodate future population growth, we are now looking to recycle readily available treated wastewater, transfer it via selected parts of the canal network, treat it again, and supply it to customers' taps where it's needed.



For our environment

The GUCT scheme is key to reducing our reliance on water from other sources, including from unique chalk stream habitats. It will explore and enable ways to leave the environment in a better state than we find it by enhancing biodiversity, delivering biodiversity net gain (BNG), surveying for species and habitats, and looking at opportunities to provide additional wetland habitats.



For all our communities

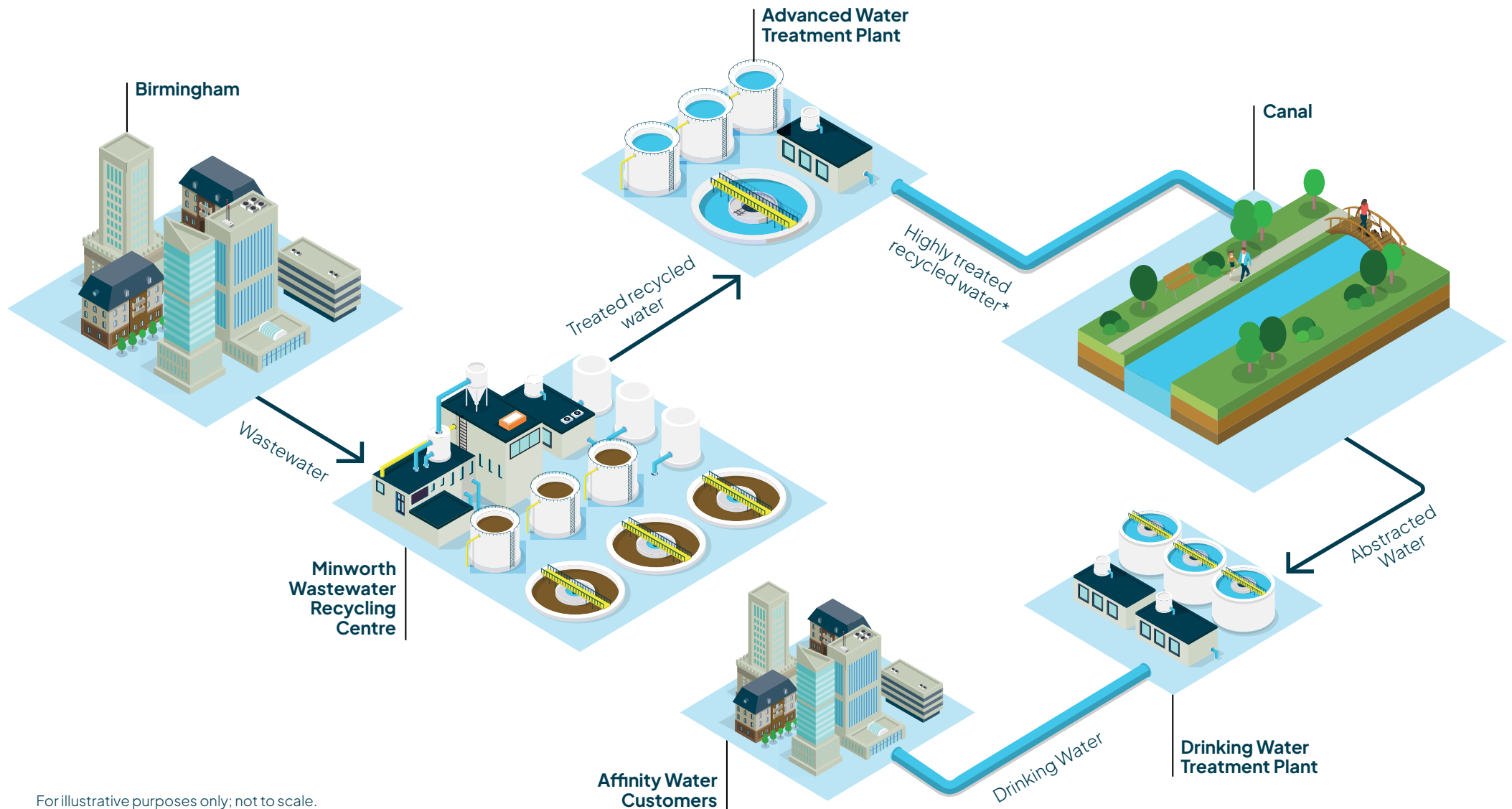
Our social value strategy identifies enhancements to the environmental and recreational value of the canal network and the local areas north and south of the route. This focus on social value will benefit people visiting, living and working on and by the canals, as well as those within the pipeline and treatment work areas. We're already planning to involve local schools and colleges in STEM programmes based around the scheme, and, in the longer term, the scheme plans to support jobs and the local economy during and after construction.



For the resilience of the canal

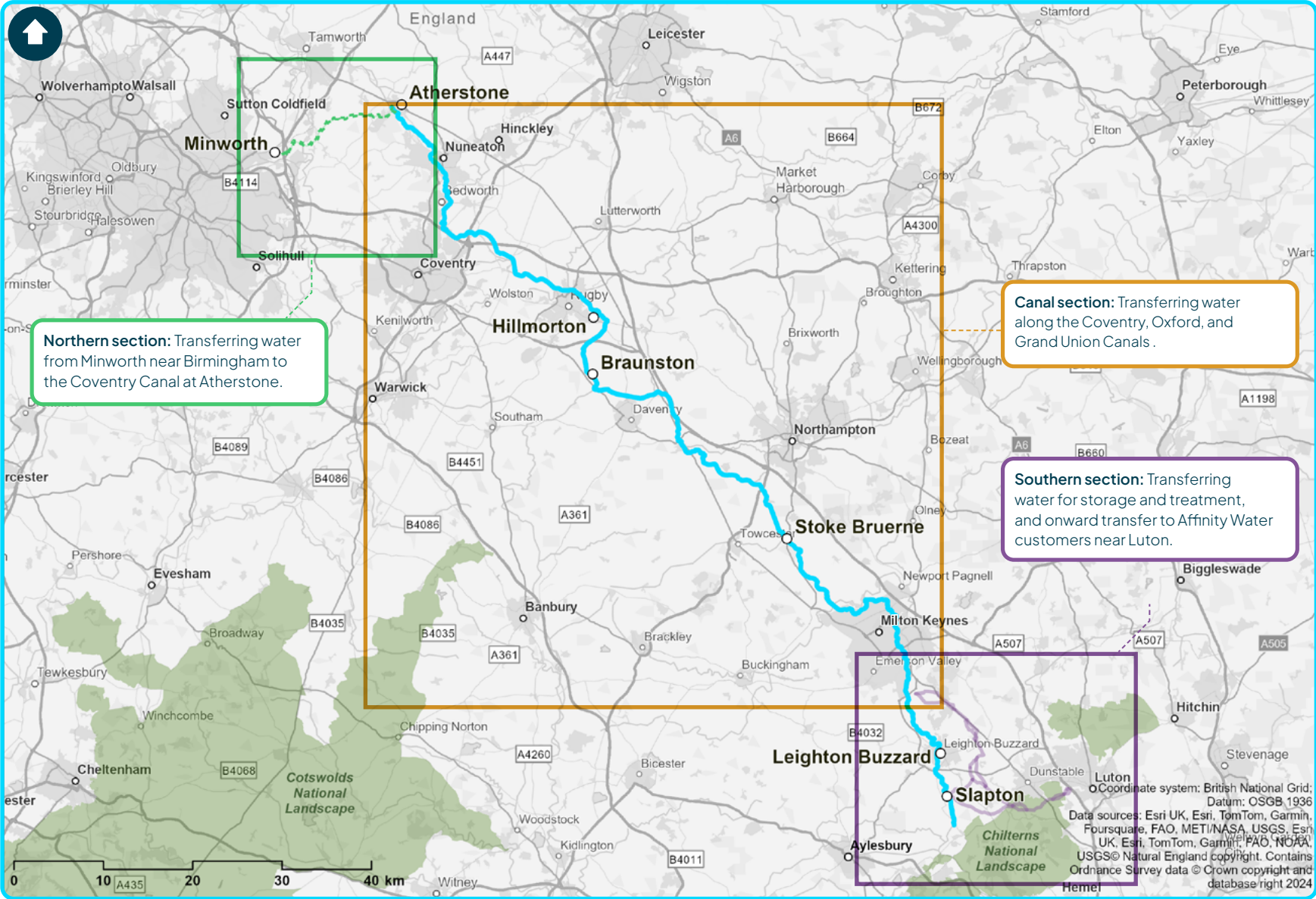
The scheme will increase the resilience of the canal network during times of drought by delivering a year-round supply of water from the Midlands to the Southeast, when the usual feed of water for navigation could run low. By improving the canal network and enhancing the ageing infrastructure where necessary, the scheme will help secure its long-term sustainable future and keep the canals safe and open for navigation.

An overview of how water will be recycled and transferred by the scheme



For illustrative purposes only; not to scale.
*No untreated wastewater can enter the canal

The scheme spans c.161km in length and, for ease, we have separated the project into three distinct parts:



A lasting legacy

Creating wider value

We're committed to delivering wider value through this scheme, not only for the end users of the water (Affinity Water customers) but for the communities and environment through which this scheme passes.

Focusing on a total value approach allows us to capture, realise and communicate wider value opportunities, beyond the traditionally assessed manufactured and financial value.

We believe, by adopting this approach, it enables us to explore the purpose, goals and values of the scheme by applying a social and environmental lens to capital allocation and investment decision-making, as well as building capability to design better solutions.

The scheme's vision, 'moving water together', encapsulates this total value approach, highlighting not only the engineering focus of the scheme- the water transfer- but the wider value delivered through partnership working.

Total value



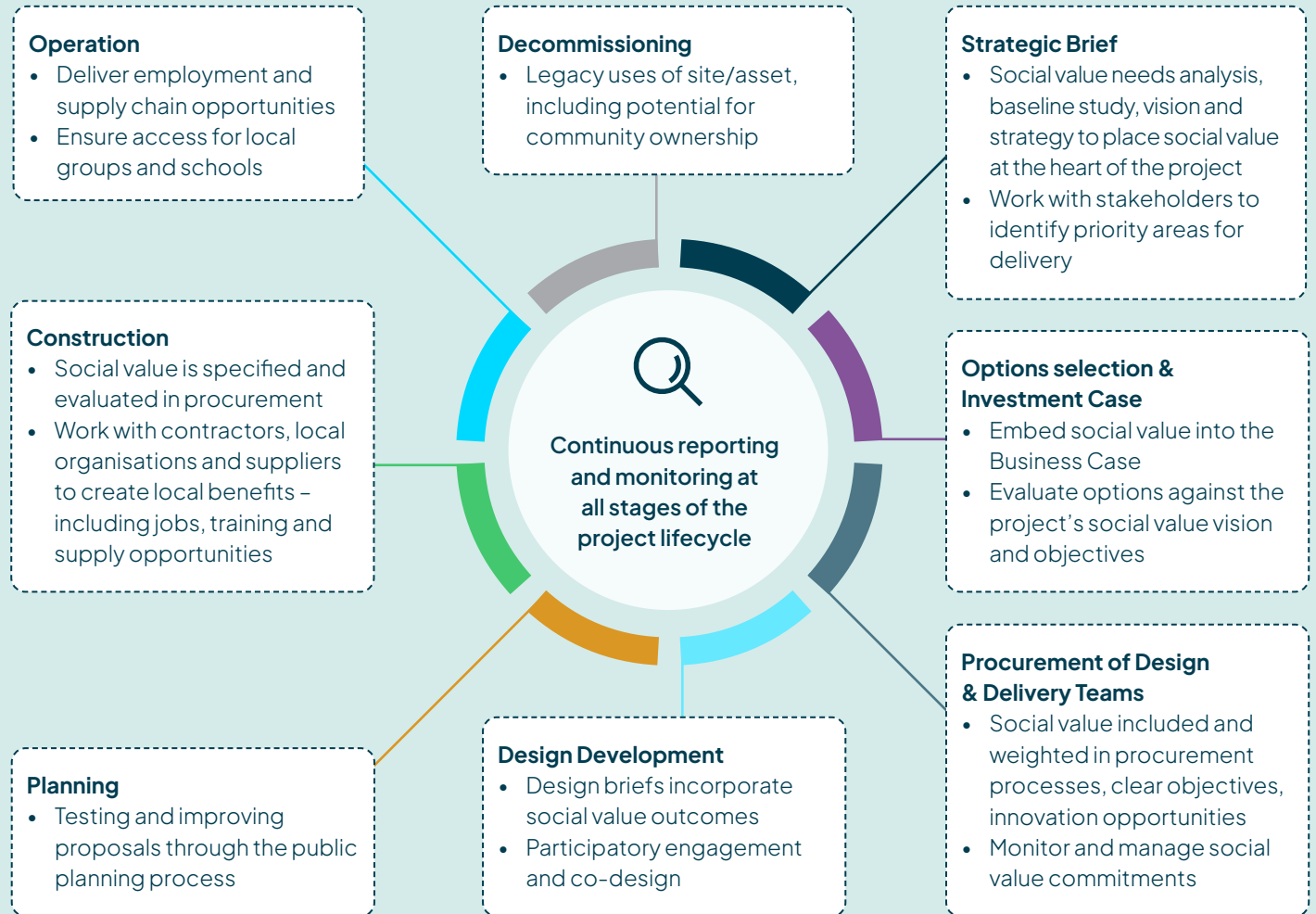
Our social value strategy

We've developed our social value strategy by building on the wider value themes of environment, growth and communities. We've considered both a core social value offer and a place-based offer, targeting the communities most impacted by the scheme.

We're passionate about ensuring social value is embedded across the project lifecycle and have already begun to identify opportunities and local relationships to help ensure the successful delivery of our ambitions.

Social values

How social value can be embedded across the project lifecycle stages of the GUCT



Below are some examples of the types of opportunities that could be available on the scheme:

The GUCT Science, Technology, Engineering and Mathematics (STEM) programme

The scheme is planning to support STEM learning programmes aimed at inspiring and empowering young people (aged 11 – 18 years) particularly from underrepresented communities, within five miles of the scheme.

Leveraging the unique heritage and natural resources associated with the scheme, we aim to offer hands-on, experiential learning opportunities that link STEM skills to real-world applications in STEM, environmental sustainability, and conservation.

Our plan is to deliver a blend of learning including outdoor, hands-on learning, webinars, classroom resources, and self-led materials for teachers, focused on sustainability, water management, and STEM, all connected to the GUCT scheme.



Ruby's Yard Community Interest Company (CIC)

A good example of a local community opportunity is Ruby's Yard CIC – a converted old boatyard located on part of the Coventry Canal, near Atherstone. It's been turned into a safe, peaceful site for outdoor sports, recreation and learning. The site is available for community organisations, youth clubs, schools, businesses and family groups to hire at very affordable rates, and they often host events for those with disabilities.

There are a number of opportunities to work with local organisations, such as Ruby's Yard CIC, along the route, to increase community access to green and blue space, as well as supporting wellbeing.



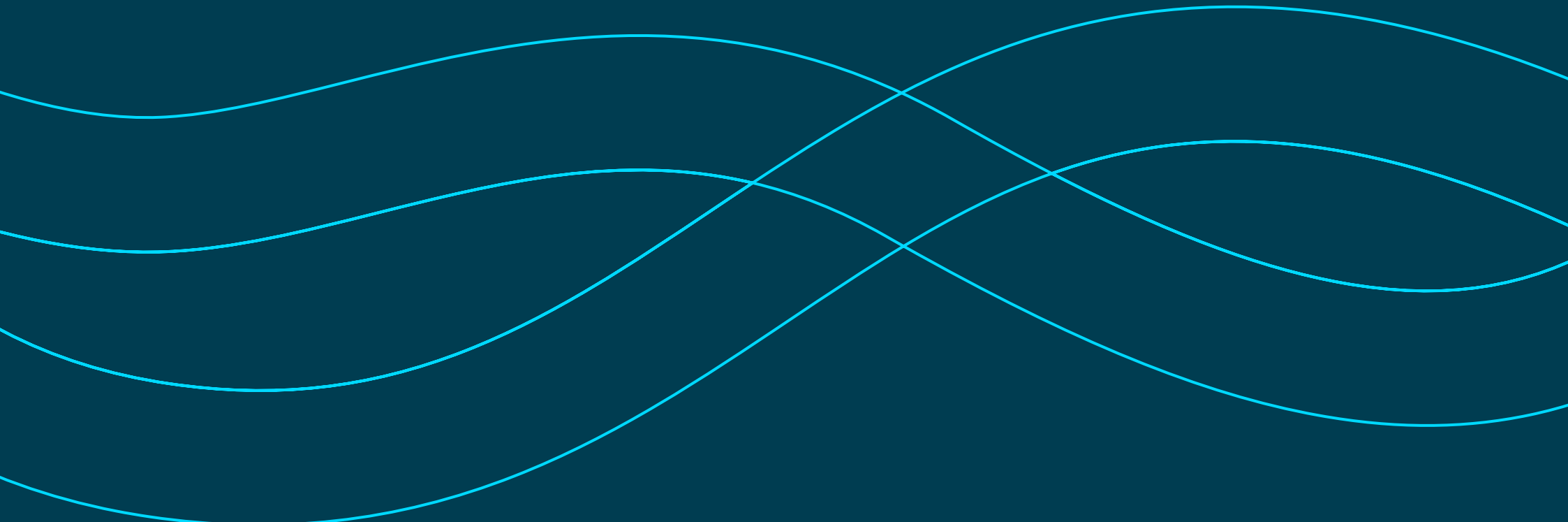
Long Buckby/Whilton Locks

Long Buckby is in the Nene Valley Nature Improvement Area and is part of a complex landscape designation where there's a clear vision for natural improvements, including along the canal corridor. It's a location where biodiversity improvements delivered by the GUCT scheme can closely align with and support its vision.

www.wildlifebcn.org/nene-valley-nia



Planning and design

Four light blue wavy lines that cross each other in a series of loops, creating a dynamic, abstract pattern across the lower half of the slide.

Planning

Affinity Water and Severn Trent will apply for a Development Consent Order (DCO) for the scheme, which is a type of consent given by the Secretary of State for nationally significant infrastructure projects (NSIPs).

The Secretary of State for the Department for Environment, Food and Rural Affairs (Defra) has determined that the scheme is of national significance and has directed it into the DCO regime. The DCO process is a bespoke consenting route for major infrastructure schemes and the GUCT falls into this category.

The process puts an emphasis on early engagement with communities and stakeholders, to allow for the opportunity to influence a project before a DCO application is submitted.

To find out more about the DCO process, please visit the [National Infrastructure Planning website](#).

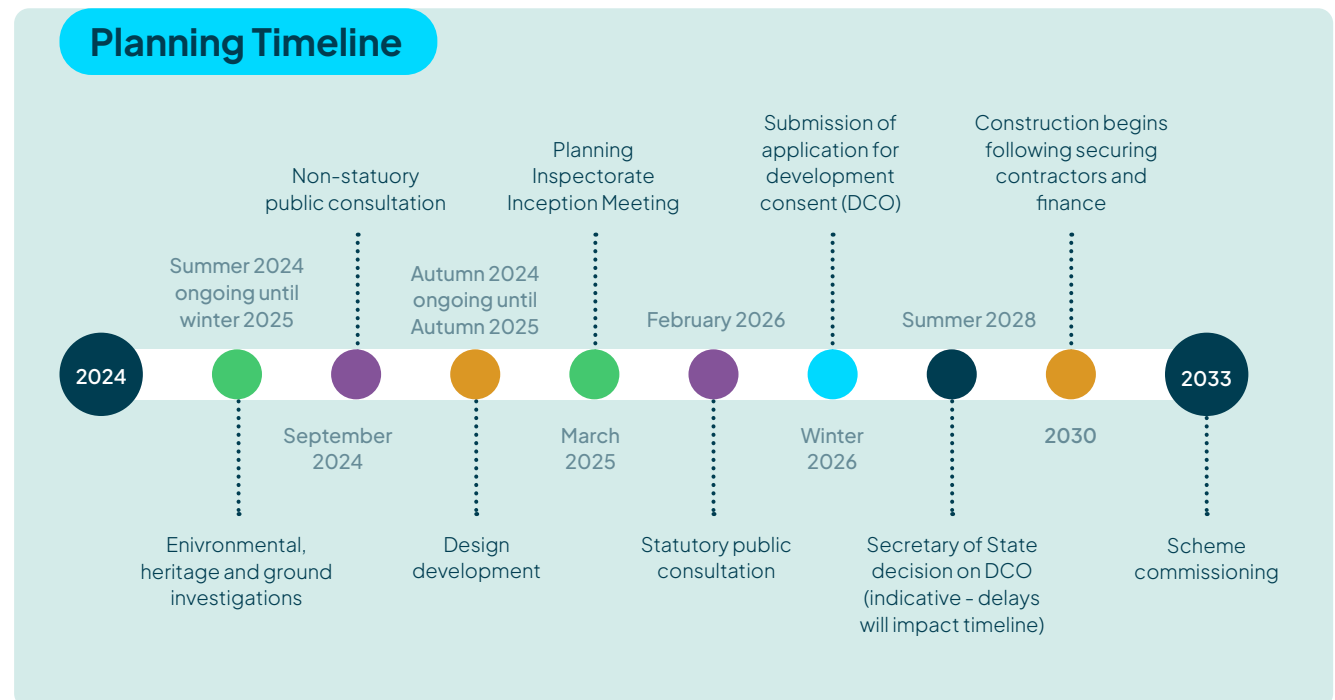
We've already commenced conversations with stakeholders and local communities, gathering their views on early design and identifying potential opportunities for delivering environmental and social value through the scheme's development.

During the Autumn of 2024, we held a non-statutory consultation reaching out to c.21,000 stakeholders to gather feedback, which has further informed the design of the scheme.

We're continuing this dialogue, making sure all stakeholders and local communities are identified and taken into account where possible, reflecting their preferences and seeking to provide additional value where we can. Ahead of the statutory consultation

process, the Planning Inspectorate has consulted on our Environmental Impact Assessment Scoping Report, and we'll continue to engage locally as we progress toward Statutory Consultation in the Spring of 2026.

A successful DCO will not only grant planning permission for the entirety of the scheme but also include all other necessary consents. This gives greater clarity for contractors and investors.



Design

Our DCO application will be based on an illustrative design and details about the land required for both temporary and permanent structures related to the scheme.

The scheme's design approach is to maximise the use of existing assets where possible as well as having least impact on the local environment.

For the Northern Section, design will be developed by Severn Trent through its own, separate procurement. This is usual for large-scale infrastructure projects, and it's crucial to maintain a certain degree of flexibility to accommodate any necessary refinements and innovations as the final detailed design is developed, leading to the award of the contract. For the Canal and Southern Sections of the scheme, the final detailed design will be developed by the Competitively Appointed Provider (CAP), after the DCO has been approved.

The DCO will define the detailed design parameters and limits for the works and secure the environmental and design commitments that the scheme will deliver. This will include a Design Principles Document, which will contain both General Design Principles (applicable to the entire scheme) and Site-Specific Design Principles (which add specific details relevant to the design of components). The final detailed design would need to comply with these parameters, requirements and principles.

GUCT design principles

Climate

- Nature knows no boundaries
- Resource and carbon efficient

People

- Understand and respond to community needs ←
- Engage widely, early and meaningfully ←
- Improve access & inclusion ←

Place

- Take care
- Protect and promote the recovery of nature
- Design all features beautifully, with honesty and creativity

Value

- Maximise embedded value ←
- Understand how to provide additional value ←
- Capture and measure embedded and additional value ←

The Design Principles will evolve from a series of preliminary principles that we developed to embed good design from an early stage, and to inform preliminary environmental assessment.

The Site-Specific Design Principles will evolve through further project development and engagement, up to the submission of the DCO application.

At this stage, we've identified what we consider to be the key design considerations and opportunities for:

- Advanced Water Treatment Plant on the Minworth site
- transfer pipeline to the canal and outfall structure
- canal pumping stations
- bypass structures and transfer locks
- bulk water storage facilities
- water treatment works at the southern site, along with a transfer pipeline for treated water to the Affinity Water distribution network

We've also commissioned a specific Canalside Design Principles Document, which explores the principal design considerations for the new canal assets, through a heritage, environmental and social lens.

An example of a potential pumping station design



Delivery models for the scheme

The background of the slide features several thin, light blue wavy lines that sweep across the lower half of the image, creating a sense of movement and flow.

How will the scheme be delivered?

The scheme is a joint water transfer project between two water companies, Severn Trent and Affinity Water, and the Canal & River Trust charity ('the Trust') which is the UK's largest canal charity.

The Canal and Southern Sections of the scheme are currently planned to be delivered by a single third-party Competitively Appointed Provider (CAP) under Ofwat's Direct Procurement for Customers (DPC) model. A CAP Agreement will govern the services provided to Affinity Water by the CAP.

The Northern Section will be separately delivered by Severn Trent under a non-DPC route.

A Bulk Supply Agreement (BSA) will operate between Severn Trent and Affinity Water to manage the supply and fund the cost of water from the Advanced Water Treatment Plant (AWTP). A Trust Supply Agreement (TSA) will operate between the Trust and Affinity Water to manage the movement and abstraction of water along the canal. The TSA will not include the delivery of any capital works on the Canal Section, as these are in the scope of the CAP Agreement.

A Tripartite Operational Agreement (TOA) will be put in place between Affinity Water, Severn Trent and the Trust, that sets out the operating protocols for operation of the combined GUCT scheme. It is not anticipated that the CAP will be party to the TOA.

Competitively Appointed Provider (CAP)	Affinity Water (AfW)	Severn Trent (ST)	Canal & River Trust (the Trust)
Design, Build & Finance (DBF) the Canal Section and transfer to the Trust for ongoing operation and maintenance.	Manage CAP procurement and contract and fulfil retained obligations.	Procure and finance the Minworth assets via a non-DPC route.	Work with AfW to specify requirements for the Canal Section to be procured and financed by the CAP.
Design, Build, Finance & Maintain (DBFM) the Southern Section and hand back to AfW after 25 years' service.	Operate the Southern Section to deliver water to DWI standards (remains subject to further consideration whether to include in CAP scope – see later discussion).	Operate and maintain the Minworth WRC.	Adopt Canal Section once fully constructed by the CAP and operate and maintain the Canal Section (including repex).
The option to adopt DBF or Design, Build, Finance, Operate & Maintain (DBFOM) alternatives are still under review, including discussions regarding transfer of operations with Drinking Water Inspectorate (DWI). We welcome market feedback on the practicalities of the DBFM model, and on whether the alternatives could create further value for money.	Bilateral negotiation of Bulk Supply Agreement (BSA) and Trust Supply Agreement (TSA) and manage service provision from ST and the Trust.	Provision of water discharge into the canal, as requested by AfW under the TOA, recovering costs by charging AfW through the BSA.	Transfer of water into the AfW network as requested under the TOA, charging AfW through the TSA.
Charge AfW through the CAP Agreement.	Perform System Operator role, issuing operating instructions under a Tripartite Operating Agreement (TOA).		
	Charges for CAP services recovered from customers via an Allowed Revenue Direction (ARD).		

Infrastructure requirements



The scheme requirements

In addition to our obligation to meet all relevant laws and regulations, there are two key over-arching scheme requirements:



The complete scheme should be able to supply a maximum of 115ML/d of potable water to the Affinity Water Central Zone from Minworth Wastewater Recycling Centre, through the northern pipeline, canal section, abstraction, treatment and transfer, after allowing for water losses in the system.



Long-term contracts will be signed between the scheme partners for the supply and transfer of water, so the design lifetimes for the main works, including the Advanced Water Treatment Plant (AWTP), the Water Treatment Works (WTW) and all pipes and pumps from the AWTP to Atherstone, and from the Abstraction site WTW to the Affinity Central Zone, should all exceed a yet to be defined number of years to support these contracts.

For the avoidance of doubt, the concession period for any CAP Agreement would be in the region of 25 years post the construction and commissioning period, whereas the contracts signed between the scheme partners will be longer than this.

Northern Section

This section of the scheme will be procured under a separate non-DPC contract, which is to be competitively tendered by Severn Trent.

The Minworth Wastewater Recycling Centre lies to the north-east of Birmingham, between the villages of Minworth and Curdworth. It's the city's principal wastewater recycling centre, treating wastewater across Birmingham and the Black Country. Key scheme requirements in the Northern Section are set out below.

- In addition to using the existing centre at Minworth, the scheme needs to build an Advanced Water Treatment Plant (AWTP) on the same site. This new facility is needed to process recycled water to a higher quality standard required by the Environment Agency, for discharge to the canal.
- We expect the entire footprint of the site will be around 150 metres by 280 metres. Within this area, Severn Trent will need to site buildings, pipelines and storage equipment. They will also need to build a new pumping station on the existing Minworth site, to transfer the water to Atherstone and into the canal network. This needs to be placed within the total footprint of the new AWTP.

- The transfer of the treated water from the Minworth AWTP to Atherstone will be via a pipeline. We've identified a preferred route through our non-statutory consultation which took place in October 2024. The first 15 km of our pipeline will be uphill, rising to a highpoint roughly 5 km to the west of Atherstone. At this point, the water will flow through a partially-buried level controlled break pressure tank and be transported via gravity for the remaining 5 km, to an outfall point into the Coventry Canal near Atherstone.
- The outfall will be housed in a small building on the side of the canal. The pipe will enter underground, and energy recovery turbines will be housed in the building. The water will move from the pipe to a tank and then out into the canal via a weir structure. We'll need monitors to measure the flows going into the canal to ensure there's no disruption to navigation or wildlife.

Operations and maintenance:

The Northern Section will be operated and maintained by Severn Trent.



Canal Section

To help the water along its way and to ensure that our water transfer doesn't adversely affect the navigation and recreational use of the canal network, our scheme will need to deliver some equipment. This will include pumping stations and gravity bypasses, alongside adapting some of the existing banks along the canal. The Trust has a statutory duty to keep the canals open for navigation. One objective of the Trust's Articles of Association is to preserve, protect, operate and manage Inland Waterways for public benefit.

Key scheme requirements in the Canal Section are set out below - all of which will fall within the scope of the CAP under the CAP Agreement.

New pumping stations:

- One of the key new sets of assets needed along the canal will be four pumping stations. These are already a common feature on the existing canal network. They're typically small buildings, used by the Trust, to assist the flow of water up and downhill, for example, through operation of the locks, to be 'reused' back uphill to help ensure the canal doesn't run dry. They also move water from areas of surplus to areas of need.
- The new pumping stations (and associated underground pipes for bypasses along the route) are needed where it's necessary for the water to flow uphill, bypassing existing locks and lock flights. Lock flights are used when a canal must make a change in level that can't be achieved by a single lock and a series of them are required. We've identified the locations; the design principles provide a guide for the development or reuse of existing buildings to house these pumps along the route where possible.

New gravity bypasses:

- There are a handful of locations where additional gravity bypass structures will be needed. These are also a common feature on the existing canal network and are used by the Trust to help move water through the canal network, where gradient is a challenge to the natural flow.
- The new bypasses are needed to allow the water to flow downhill past individual locks or lock flights. These will need to be built within the canal bank and will be largely underground to minimise visual impact.

Canal bank raising:

- Most of the canal banks won't need to be raised during the development of the scheme. However, in some places, we believe there is the need to carry out bank and towpath raising to accommodate the small increases in the water level of the transfer. The current estimate is between 25km and 60km of bank raising (12.5km to 30km on each side of the bank). We have undertaken significant investigations and asset condition surveys in order to better understand and de-risk as much of the canal works as possible. This approach continues and this information will be shared with bidders in the forthcoming procurement process.
- To keep bank raising at a minimum, we've identified three areas for new water transfer locks. These are new channels where the canal flow will be transferred more efficiently to mitigate levels at the bottom end of the longer pounds. This will provide a solution whereby bank raising requirements are reduced and the subsequent intrusive work on the canal is reduced.

Utilising existing water storage:

- To ensure the scheme is resilient to drought, we plan to utilise the existing Daventry and Drayton reservoirs for six days' storage of the combined maximum daily demand (720MI). The reservoirs will be kept full, except when water is being abstracted from the upgraded Daventry and Drayton reservoirs, with a spillway/bypass to avoid overtopping. It is envisaged some upgrade works will be required at the inlets and outlets of these reservoirs.
- Several water quality loggers will be required, to both monitor canal water and give advance warning to the abstraction site if the abstraction pumps need to be turned off, in emergencies.

Operations and maintenance:

On commissioning and acceptance of completion of the Canal Section assets, they will be adopted, operated and maintained by the Trust.



Southern Section

After water has been transferred through the canal network, it will be abstracted from the canal with an abstraction structure, stored, and treated again at a new water treatment works, to bring the water up to the required drinking water standards. It will then be piped to an existing storage reservoir within the Affinity Water area. We've been through a detailed site selection process to establish the preferred location for the new works and storage, and progress will continue before the contract is awarded to secure this land.

Key scheme requirements in the Southern Section are set out below – all of which will fall within the scope of the CAP under the CAP Agreement.

- We'll need to build a new intake structure to take the water out of the canal. This structure consists of outlets built into the side of the canal bank and will allow us to abstract water from the canal in a controlled way and at a low speed.
- Transferring water to the new storage area will require a new pumping station. The current working estimate is for the pumps to operate at 6Ml/h. This is subject to further design work.
- We'll need to store up to five days' worth of water before it goes through the treatment process. This equates to 575Ml, and we'll also need to ensure low annual seepage losses and protect against erosion from rivers and overtopping of the canal. The design will be subject to the **Reservoirs Act 1975** and will need to provide a bottom outlet or "scour" system to allow routine or emergency drawdown. Current guidance is that the reservoir should be capable of being drawn down by at least one metre in 24 hours. This storage allows the transfer to be more resilient, allowing an additional buffer between the water in the canal and the water reaching

the new water treatment works. A draft design is being developed for the water storage and it's likely to consist of an earth embankment, up to a maximum height of around six metres, and a likely surface area of around 28 acres. A key consideration is to ensure the storage has as little visual impact as possible on the surrounding area. This water storage may offer opportunities to provide wider benefits to local communities as well as contributing to Biodiversity Net Gain.

- The new WTW at the Abstraction Site must be able to clean water to '**potable water standards**' and comply with the **DWI's guidance note on long-term planning for the quality of drinking water supplies**. It must also comply with **Section 68 of the Water Industry Act 1991**, to supply wholesome water and ensure as far as reasonably practicable that there is "no deterioration in the quality of the water which is supplied from time to time from that source".
- Any water lost through the process of treating water mustn't exceed 2.7% (i.e. 3Ml/d when processing 115Ml/d).
- Between Atherstone and the Abstraction Site, canal water is subject to discharges from landowners adjacent to the canal, from diesel spills and other sources. The WTW must be capable of responding to a range of issues which could happen on the canal (e.g. diesel spills up to a certain volume, and chemical toilet discharges up to a certain level), but there will be defined water quality parameters and triggers whereby the abstraction pump would be turned off.

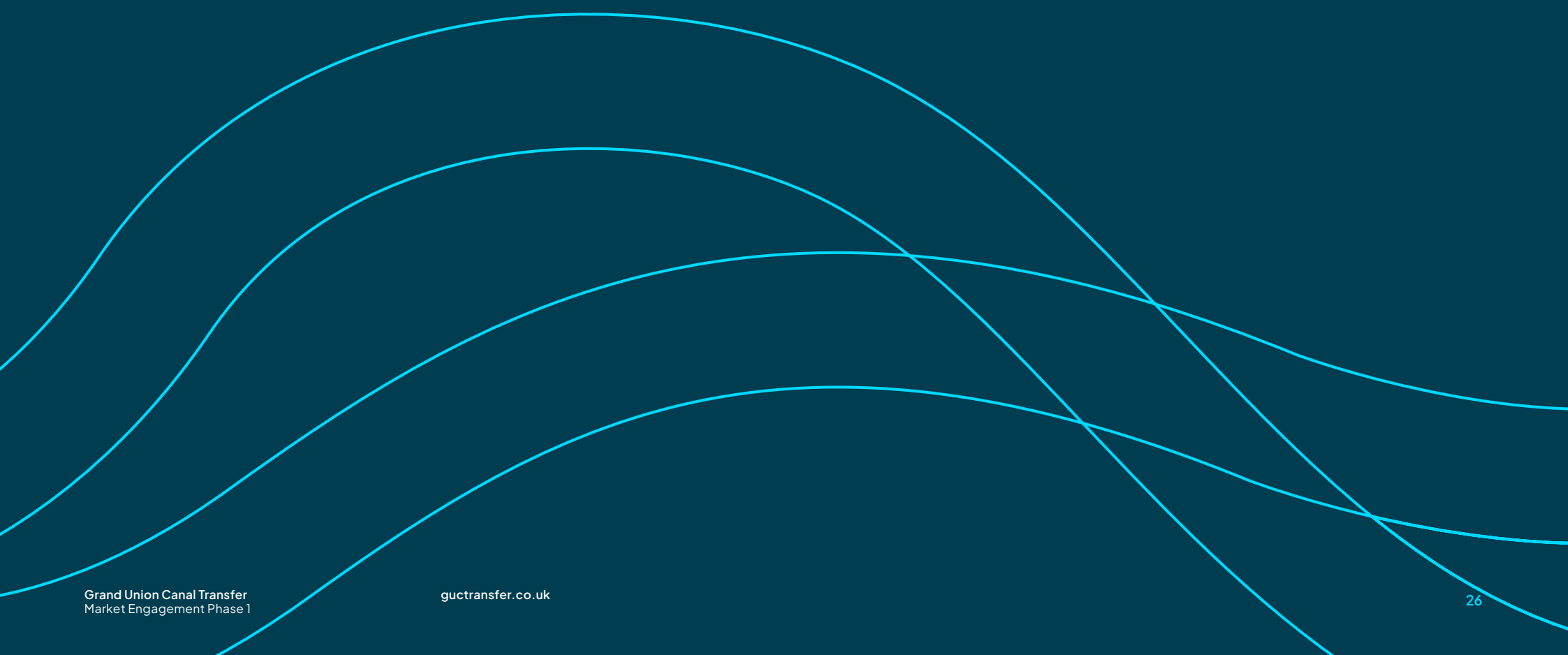
For the DCO, we will have identified a pipeline corridor to transfer the water from the new WTW site to an existing service reservoir, owned by Affinity Water, at Chaul End. At this point, the water will then go into the wider Affinity Water network.

- We're expecting the pipeline to be approximately 30km in length, approximately one metre in diameter and, at this stage, we expect it will be made from steel. Typically, we think it will be buried to a minimum depth of 1.2 metres from the top of the pipe.
- We've focused on optimising the route to avoid residential houses, and minimise environmental impact by routing the pipeline away from environmentally sensitive areas such as woodlands, etc. This has been achieved by working closely with stakeholders and local communities via our public consultation, which took place in October 2024. There are two A5 crossings, with the opted method of trenchless installation such as directional drilling. We also cross the A505. The route does pass through the Chiltern Hills National Landscape and within an area overseen by the National Trust. We'll need to recognise the sensitivities of working within this location and have been engaging with the stakeholders in this area. Although we expect most of the route to use an open-cut technique in areas of sensitivity, we also expect the need to use trenchless construction techniques to reduce disruption. The scope for Ground Investigations (GI) covers eight locations across the site.

Operations and maintenance:

The Southern Section will be maintained by the CAP. Operation of the Southern Section – in particular, operation of the WTW – is currently anticipated to be retained by Affinity Water. Potential third-party operation by the CAP is a key area where we are seeking market feedback on capability and interest to undertake these activities.

CAP procurement strategy

Four overlapping, light blue curved lines that sweep across the lower half of the slide, creating a sense of movement and depth.

CAP procurement strategy

The procurement of the CAP will be conducted under the Procurement Act 2023 (the Act). The Act came into effect on 24th February 2025 and replaces the existing Utilities Contracts Regulations 2016 (UCR16). It makes several changes to procurement practice that will apply to the procurement process.

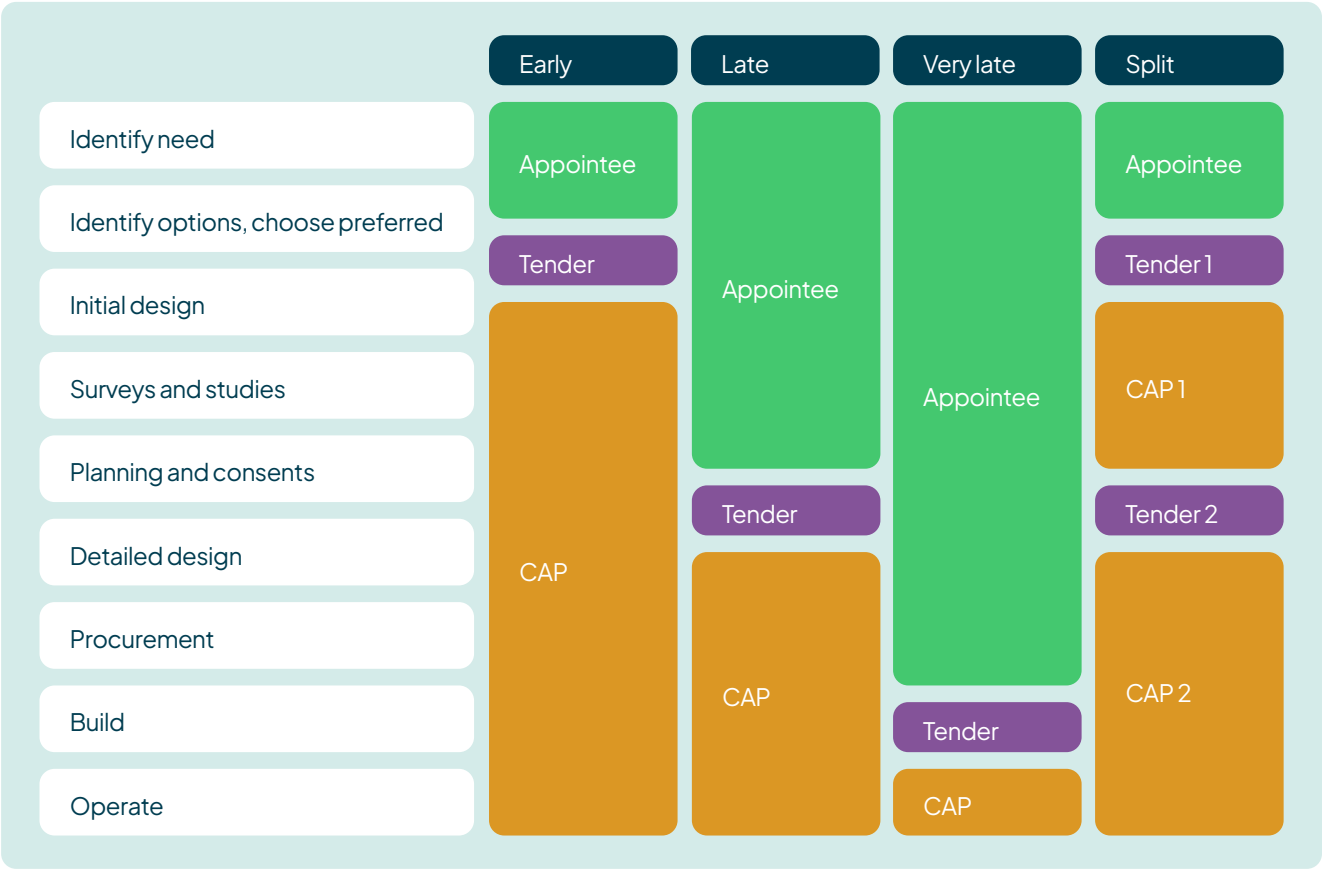
Under the new Act:

- Key considerations and objectives will include: delivering Value for Money (VFM), maximising public benefit, and acting with integrity.
- The Act provides more flexibility on how to run procurement processes through the new Competitive Flexible Procedure (CFP).

In essence, these changes have given us the ability to tailor a more flexible procurement process, improving the likelihood of obtaining positive outcomes in line with the core values of the scheme.

Under the Act, Contracts will be awarded to the bidder who submitted the “most advantageous tender” rather than the “most economically advantageous tender”. Therefore, the award will focus on tenders which best meets the award criteria, which encourages the consideration of broader value considerations, such as social value and environmental criteria, when evaluating bids.

In the context of the DPC process, after evaluating the options available, we’ve elected to follow a late tender model option and a Competitive Flexible Procedure (CFP) as the most appropriate route to market.



Bearing in mind the tender process is scheduled to formally commence around August 2027, and further consideration needs to be given to the process design during the intervening period, we would like to use this phase of Preliminary Market Engagement (PME) to secure feedback on key considerations.

We will seek to engage with market participants who have the capability, experience and interest in delivering the scheme through a Design-Build-Finance (DBF), Design-Build-Finance-Maintain (DBFM) or Design-Build-Finance-Operate-Maintain (DBFOM) model. The final decision on the procurement model has yet to be decided and the market engagement process will help develop and formulate the final strategy. We should point out that the Procurement Specific Questionnaire (PSQ) is expected to be issued towards the end of the examination stage of the DCO (August 2027) and completed by the end of the formal examination phase. This will give us the opportunity to reflect on how the examination went and its likelihood of success, before launching the Invitation to Tender (ITT) while the Planning Inspectorate (PINS) prepares its recommendation to the Secretary of State.

We recognise the significant cost of bidding procurements of this nature and will seek to design an efficient process which avoids an unnecessarily lengthy tender process and reduces the number of bidders, in a timely manner. Furthermore, we are exploring the payment of a stipend to unsuccessful bidders at the final tender stage, to reduce the cost barrier and maximise the benefits of effective competition. This approach remains to be agreed, as does any amount that might be paid.



CAPA emerging commercial model

As part of this engagement exercise, we want to test our emerging thinking on key commercial drivers.

The details on the following pages set out our early thoughts on the commercial framework for the CAP that will be subject to further internal development, consultation with Ofwat and further periodic market engagement.

Overarching commercial structure

The overarching likely commercial structure is set out below:

- The CAP will enter into a CAP Agreement with Affinity Water for a period of 25 years plus the construction and commissioning period. The CAP Agreement will draw on Ofwat's guidance and UK precedent contracting approaches, such as the Mutual Investment Model (MIM) and Standardisation of PF2 Contracts (PF2).
- The CAP Agreement will set out the rights and obligations of the parties and will establish the basis under which the CAP will be remunerated and incentivised by Affinity Water.
- Affinity Water is a strong contract counterparty with an investment grade corporate family rating of Baa1, from the credit rating agency Moody's.
- The CAP will be responsible for the design, build and finance of all the assets in the Canal Section and the Southern Section, in addition to the following:
 - On construction completion (i.e. meeting pre-defined acceptance and commissioning criteria) the assets in the Canal Section will be operated and maintained (including lifecycle replacement) by the Canal & River Trust.
 - The CAP will have no residual service performance obligations in the Canal Section.
- We're currently minded to exclude day-to-day operational responsibility for the assets in the Southern Section, including the water treatment plant, due in large part to DWI regulatory uncertainty. We are, however, interested to receive feedback from the market on the potential value for money drivers for its inclusion, were this situation to change.
- Currently, the CAP is anticipated to take responsibility for the maintenance of the assets in the Southern Section (including lifecycle replacement to meet defined hand back criteria).
- The CAP will retain responsibility for servicing the finance for both the assets in the Canal Section and the Southern Section.
- Affinity Water will recover the CAP's charges (the 'Unitary Charge') from customers via an Allowed Revenue Direction issued under licence condition U, flowing through payments of the CAP Agreement.
- The CAP Agreement will include provisions requiring prior approval by Affinity Water of certain changes of ownership or control of the CAP and to share any information that is required for Affinity Water to comply with its obligations under the National Security and Investment Act 2021.
- Neither Severn Trent nor the Canal & River Trust will be parties to the CAP Agreement and the CAP will be insulated from the operational performance of both these parties.



Construction contract model and compensation events

Construction contract model and compensation events



Estimated Capex, within the scope of the CAP in 2024 prices, is in the region of £425m (with works on the Canal Section contributing roughly 40%), subject to ongoing refinement of design and cost estimates.

We plan to tender the project in a way that supports a Fixed Price construction contract, with a suite of Compensation Events, based on precedents such as PF2 as well as limited additional reopeners, as illustrated below:

- If Affinity Water breaches any of its obligations (including failure of us or the Canal & River Trust to grant the necessary access to respective sites during construction)
- Changes Affinity Water makes to the scope
- Certain changes in water law not foreseeable at contract signature
- Construction inflation outside a defined index
- Delay or failure in relation to a wider network asset (which is not the CAP's responsibility) which impedes the full commissioning of CAP assets
- Unforeseen ground and existing asset conditions in respect of certain canal work on existing assets

The CAP will carry on-time delivery and cost overrun risk, subject to these reopeners.

After the design phase, the construction programme is anticipated to be circa three years. There will be no milestone payments made during construction, with CAP Charges commencing only upon successful construction completion. We are not currently considering that early completion ahead of planned completion – a specific date in 2032 anticipated to be set by Affinity Water – will be incentivised, given the interaction with the wider system and need for aligned commissioning.

The CAP will be required to finance Compensation Events, the impact of which will be compensated by Affinity Water through an adjustment to the Unitary Charge at the end of construction, recalculated using the submitted financial model.

At the bidding stage, bidders will need to demonstrate sufficient committed finance to meet their tendered construction costs plus Compensation Events, as well as their other upfront costs to be financed (e.g. bid costs, arrangement fees and interest during construction).

To give the CAP certainty to raise finance for Compensation Events, we anticipate establishing a defined financing level at procurement (e.g. tendered nominal construction costs $\times 1+X\%$), the 'threshold'. If this threshold were reached during construction (including for any additional interest during construction), Affinity Water would have the option to capital fund the CAP for further Compensation Events or to terminate the CAP.



Operations & maintenance

- Affinity Water will act as overall System Operator and direct the usage of the Southern Section assets to abstract, process and deliver water to meet its requirements.
- Maintenance of the Southern Section assets (including lifecycle replacement to meet defined hand back criteria) is expected to be the responsibility of the CAP.
- We're currently minded to exclude day-to-day operational responsibility from the scope of the CAP and for this to remain with Affinity Water. We are, however, interested to receive feedback from the market on the potential concerns and/or value for money drivers for its inclusion were this situation to change, be these regulatory or contractual.
- Affinity Water will retain its obligations as the appointed business under the WIA 1991.



Refinancing

- Refinancing gain share provisions will be included to share benefit to the project arising from a refinancing of its senior debt.
- The benefit of refinancing will be shared between the CAP and customers by way of reduced Unitary Charges or a lump sum recalculated using the financial model.
- The approach will be based on the PF2 precedent with customers receiving a 90% share of any reduction in debt margins and a 50% share for all other relevant refinancings.
- Affinity Water will have the right to request a refinancing.



Termination

- It is expected that the CAP Agreement will run for the contract term with provisions to deal with expiry and hand back of the Southern Section assets, but it will include mechanisms to deal with early termination, likely based on PF2 precedents.
- Termination and Compensation on Termination provisions will be included to cover Appointee Events of Defaults, CAP Events of Default, Corrupt Gifts Event of Default, Appointee Voluntary Termination and Force Majeure.
- CAP Events of Default will incorporate failure to achieve a construction long-stop date and poor service performance by reference to a pre-defined service failure level.



Hand back

- The CAP Agreement will include hand back requirements at contract expiry to ensure that the Southern Section assets are managed effectively by the CAP over the contract period.
- Southern Section assets must be handed back in a condition consistent with both proper performance of the output specification and defined asset components, having been designed and constructed in accordance with applicable design life requirements, set out in the construction requirements.
- A separately appointed Independent Technical Adviser (ITA) will have a role in inspecting the assets and approving and monitoring the works programme and completion.
- Prior to contract expiry, the ITA will inspect the Southern Section assets. Where any components are not in line with the hand back requirements, the ITA will prepare a report setting out the nature of the works required to rectify the cost and the programme.
- The CAP will bear the cost of delivering the rectification works to the programme, even where the actual costs exceed the CAP's initial assessment.
- We will require financial security against the CAP completing the works. This could be dealt with by either withholding Unitary Charge, by an offset of any uncompleted works against the end of concession payment (see next page) or by the CAP posting a bond in favour of Affinity Water, from a bank or insurance company authorised to carry out business in the UK.



End of concession payment

- CAP assets will not fully depreciate over the period of the CAP Agreement, which is shorter than the useful life of the assets.
- Accordingly, Affinity Water will define an end of concession payment – anticipated to be fixed rather than indexed – to be paid on or shortly before the expiry date, reflecting the remaining life of the assets, assuming straight line depreciation of the estimated Capex of the project. We are interested to receive feedback on the benefit of alternative quantum or timings of this payment, especially with regards to enhanced value from structuring finance.
- This ensures intergenerational fairness with future customers paying a fair share for the assets constructed.
- As a result, a material component of the Unitary Charge may arise at the contract end date.
- While this payment is not directly linked to asset condition, which will be dealt with separately under hand back arrangements, a portion of the payment could be held as financial security against uncompleted hand back works.



Payment mechanisms & incentives

- The Unitary Charge (in GBP) will commence on successful achievement of operational readiness for a period of 25 years, re-calculated based on the impact of approved Compensation Events that the CAP may have financed.
- Under a DBFM, the Unitary Charge will take the form of a single fixed payment stream, with an end of concession payment, to compensate the CAP for its fixed and variable costs including maintenance, overheads (including insurance and CAP running costs), financing costs and all lifecycle costs.
- The CAP will bear the risk of any variations in these core costs over the life of the project.
- The Unitary Charge will be subject to annual indexation anticipated to be in line with the Consumer Prices Index, including owner occupiers' housing costs (CPIH). Bidders will be asked to propose the proportion of the Unitary Charge subject to indexation, to create a natural hedge with their costs that will increase with inflation during the CAP Agreement.
- An output specification will be in place, supported by a performance regime, where failure against defined availability and performance standards will result in financial deductions from the Unitary Charge.
- Were a DBFOM to be pursued, where water treatment works operations are included in the CAP scope, it's acknowledged that volumes will be significantly driven by our volume requests and the intake water quality at the abstraction site. Energy, chemicals and consumables are also subject to fluctuations in unit costs.
- On this basis, we expect the CAP will be subject to an efficient usage incentive mechanism for given utilisation levels. We would be interested to receive further feedback on volume and cost risk allocation considerations around the procurement of energy, chemicals and consumables, were this model further pursued.

Thank you for reading

If you would like to ask any questions about the scheme, please contact our commercial team:

 guetscheme@affinitywater.co.uk

Glossary

Term	Definition
Advanced Water Treatment Plant (AWTP)	A facility at Minworth to treat recycled water to a high standard before canal discharge.
Affinity Water (AfW)	A water company responsible for supplying drinking water in parts of the Southeast of England.
Biodiversity Net Gain (BNG)	An approach to development that leaves biodiversity in a better state than before.
Bulk Supply Agreement (BSA)	Agreement between Severn Trent and Affinity Water for the supply of water.
Canal & River Trust (the Trust)	A charity that owns and manages the canal network in England and Wales.
Competitively Appointed Provider (CAP)	A third-party entity appointed to design, build, finance, and potentially maintain and operate parts of the scheme.
Consumer Prices Index including owner occupiers' housing costs (CPIH)	An inflation measure used for indexing the Unitary Charge.
Design-Build-Finance (DBF)	A project delivery model where the CAP designs, builds, and finances the infrastructure.
Design-Build-Finance-Maintain (DBFM)	A model where the CAP also maintains the infrastructure post-construction.
Design-Build-Finance-Operate-Maintain (DBFOM)	A model where the CAP also operates the infrastructure in addition to DBFM responsibilities.
Development Consent Order (DCO)	A Development Consent Order (DCO) grants a developer the necessary permissions to proceed with a Nationally Significant Infrastructure Project (NSIP). It essentially combines planning permission with other required consents, streamlining the process for major projects
Direct Procurement for Customers (DPC)	A regulatory model by Ofwat allowing third-party providers to deliver large infrastructure projects.
End of Concession Payment (EoCP)	A payment made at the end of the CAP Agreement to reflect the remaining value of the assets.
Grand Union Canal Transfer (GUCT)	A strategic water transfer scheme moving water from the Midlands to the Southeast via canal infrastructure.

Term	Definition
Invitation to Tender (ITT)	A formal document issued by an organization (often a public sector body or a large company) inviting potential suppliers to submit proposals for the provision of goods, services, or works
Mutual Investment Model (MIM)	A public-private partnership model used in UK infrastructure projects.
Procurement Specific Questionnaire (PSQ)	A document used in public procurement to gather information from potential suppliers, ensuring they meet the minimum requirements before being invited to tender
Regulators' Alliance for Progressing Infrastructure Development (RAPID)	A joint team from Ofwat, the Environment Agency, and the Drinking Water Inspectorate overseeing SROs.
Severn Trent (ST)	A water company operating in the Midlands, partnering in the GUCT scheme.
Standardisation of PF2 Contracts (PF2)	A UK government framework for public-private partnership contracts.
Strategic Resource Options (SRO)	Projects identified to address future water supply needs in England.
Tripartite Operational Agreement (TOA)	Agreement between AfW, ST, and the Trust outlining operational protocols.
Trust Supply Agreement (TSA)	Agreement between the Trust and Affinity Water for the movement and abstraction of water along the canal.
Unitary Charge	The fixed payment made by Affinity Water to the CAP over the contract term.
Water Resources Management Plan 2024 (WRMP24)	Affinity Water's statutory plan outlining how it will manage water resources.
Water Treatment Works (WTW)	Facility to treat abstracted canal water to potable standards before distribution.
Wastewater Recycling Centre (WWRC)	An existing facility at Minworth, near Birmingham, to treat and recycle wastewater to a high standard



Grand Union Canal Transfer

Severn Trent

Severn Trent is one of the largest regulated water and sewerage companies in the UK, providing water and waste services to more than 4.5 million homes and businesses in the Midlands, from the outskirts of Bristol to the southern suburbs of Sheffield.



WONDERFUL ON TAP

Affinity Water

Affinity Water is the UK's largest water-only supply company. It provides, on average, 950 million litres of water each day to more than 3.8 million people in parts of Bedfordshire, Berkshire, Buckinghamshire, Essex, Hertfordshire, Surrey, the London Boroughs of Harrow and Hillingdon and parts of the London Boroughs of Barnet, Brent, Ealing, and Enfield.

AffinityWater

Canal & River Trust

The Trust is the UK's largest canal charity, caring for a 2,000-mile network of historic canals and navigable rivers, attracting 800 million unique visits to the network and supporting 85,000+ waterway dependent jobs. Its canal network is used by more boats now than at the peak of the Industrial Revolution and connects many of the UK's urban and rural areas, providing essential spaces for wildlife and people, helping us all feel happier and healthier. It manages several existing water transfer schemes.

