

## Case study

# Anglian Water: Lincolnshire Reservoir

March 2024

The East of England is low-lying, and one of the driest in the UK. Water sources are under pressure from a changing climate meaning people, plants and animals are competing for the same precious resources.

Drought is set to become more common amid hotter, drier summers, and intense rainfall events more frequent.

Chalk streams are under pressure, and we need a sustainable water supply that does not worsen the demands being asked of these precious habitats.

**If no action is taken, there will be a shortfall of 593 megalitres a day (Ml/d) in the Anglian Water Region by 2050<sup>1,2</sup>.**

A best value plan – one that presents the best value to customers, society and the environment – has been developed to respond to this significant need for new water.

This proposes two new reservoirs, one in Lincolnshire and the other in the Cambridgeshire Fens. The Water Resources East (WRE) regional plan identifies the need for these new reservoirs as key elements of the overall package to ensure the region can continue to thrive.

Anglian Water's Water Resources Management Plan also identifies the proposed new reservoirs as much-needed large-scale investments that will play a critical role in securing water supply long into the future.

Anglian Water is therefore proposing development of a new reservoir in Lincolnshire. This is a new strategic resource option scheme that, once in service, will supply up to 166 million litres of water to Anglian Water customers every day.

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<sup>1</sup> One megalitre = one million litres.

<sup>2</sup> [Anglian Water, Water Resources Management Plan 2024 \(WRMP24\)](#)

More information about the need for the proposed reservoir can be found within Anglian Water's Revised Draft Water Resources Management Plan 2024<sup>2</sup>.

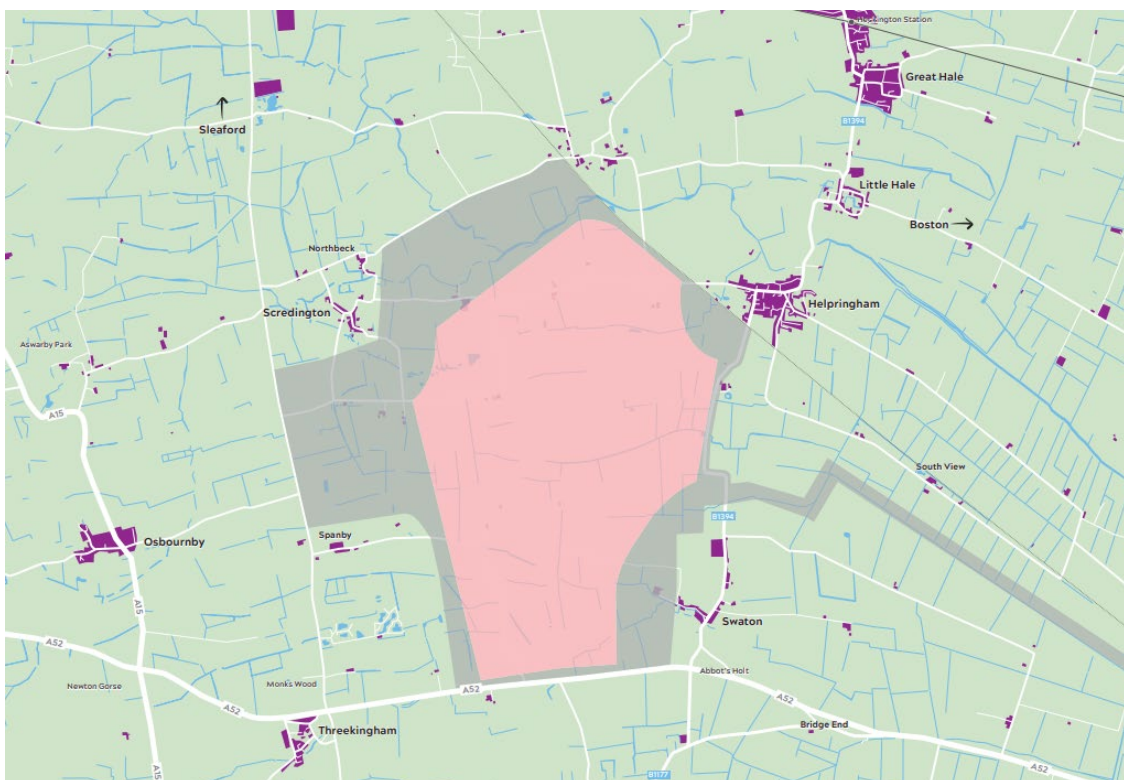
## The proposed site

The proposed site for the 55 Mm<sup>3</sup> (million cubic metres) storage reservoir (50 Mm<sup>3</sup> useable volume) is located approximately four miles south-east of Sleaford, in the North Kesteven district of Lincolnshire.

This location was identified following a multi-stage robust site selection process, which aimed to make sure a location that would be suitable for hosting a reservoir would be identified. It also aimed to minimise impacts on nearby areas and communities and meet planning and regulatory frameworks. It was found to be the best-performing site – one which balances all the factors considered and provides significant opportunities to unlock wider benefits<sup>3</sup>.

The scheme is estimated to have a capital cost of just over £2.6 billion, with a whole life total expenditure cost of £6.9 billion (2022–23 prices).

## Proposed site



<sup>3</sup> <https://www.lincsreservoir.co.uk/assets/images/downloads/Site-Selection-Report%E2%80%93Lincolnshire-Reservoir%E2%80%93phase-one-consultation-2022.pdf>

*Pink area: Proposed site area for reservoir and its embankment*

*Grey area: Initial area identified for supporting infrastructure, construction and additional measures*

The Lincolnshire Reservoir will secure a resilient supply of water for people across Lincolnshire and the surrounding areas for many years to come. It will mean less water taken from sensitive groundwater sources, replenishing the environment and helping springs to flow.

Areas within and around the reservoir will be opened for public use, and leisure opportunities on the water and in the landscape around it created. New connections will be provided from the surrounding villages, so that people can access and enjoy water and nature.

Anglian Water is exploring how the proposed reservoir could unlock wider benefits for the region, by creating an attractive destination with recreational activities and diverse opportunities for local businesses.

The reservoir could support healthy lifestyles with access to outdoor space and nature, support economic growth and strengthen placemaking opportunities for local areas, and support large-scale nature restoration, helping to protect and enhance the environment. Further details can be found in Anglian Water's 'Delivering our shared ambition'<sup>4</sup> document.

**Mark Malcolm, Anglian Water's Major Infrastructure Projects Director, said:**

**“**We're committed to ensuring the Lincolnshire reservoir inspires local and regional pride and delivers a positive legacy for the communities and places nearby. We'll hold ourselves to high standards to deliver this ambition. The reservoir will be thoughtfully designed to respect and reveal the local area's rich character and heritage. It will help the environment to thrive, restoring habitats lost in recent decades to increase the presence and diversity of local wildlife. It will be at the heart of a revitalised countryside. It will support a change to more regenerative land management, and diverse opportunities for local people, agriculture and businesses.”

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<sup>4</sup> [Delivering our shared ambition document](#)

## Scheme components

During times of high rainfall, water will be abstracted from the nearby River Witham and River Trent to be pumped to the reservoir for storage via a combination of pipes, streams and rivers. The water would then be treated and distributed into Anglian Water supply via new underground pipes and service reservoirs.

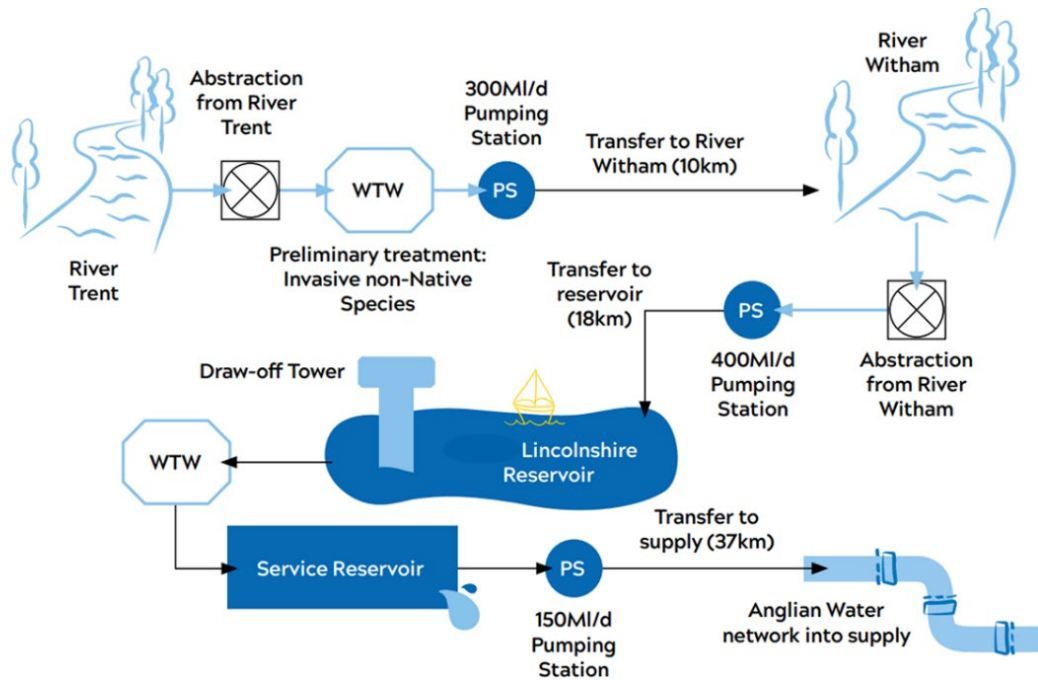
Anglian Water has been progressing through a multi-stage site selection process to identify the best locations for the components needed to operate the reservoir. This includes the associated infrastructure needed to:

- **Transport raw water from rivers to the reservoir** – river intake structures, pumping stations and, where needed, invasive non-native species (INNS) treatment works. It also includes underground pipelines to transfer water to the reservoir, and possible routes to transfer water into the reservoir using existing open channel waterways.
- **Supply treated water from the reservoir to homes and businesses** – a water treatment works, underground pipelines to transfer the treated water to connection points in the local supply network and new service reservoirs at these connection points to make sure the water is supplied when it's needed.
- **Lower the reservoir's water level quickly in the unlikely event of an emergency** (emergency drawdown) – this is a very rare scenario, but a clear plan for discharging extra water to the sea as quickly as possible is required by reservoir safety legislation.

The interaction between these various components, including the Lincolnshire Reservoir and how it reaches Anglian Water's customers, is illustrated in the diagram below and more detail can also be found in the project's RAPID Gate 2 Report<sup>5</sup>.

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<sup>5</sup> [Lincolnshire Reservoir RAPID Gate 2 Report Submission](#)



Proposals for the associated infrastructure, as well as a more detailed design for the proposed reservoir site itself, will be the subject of a public consultation expected to launch in late spring 2024.

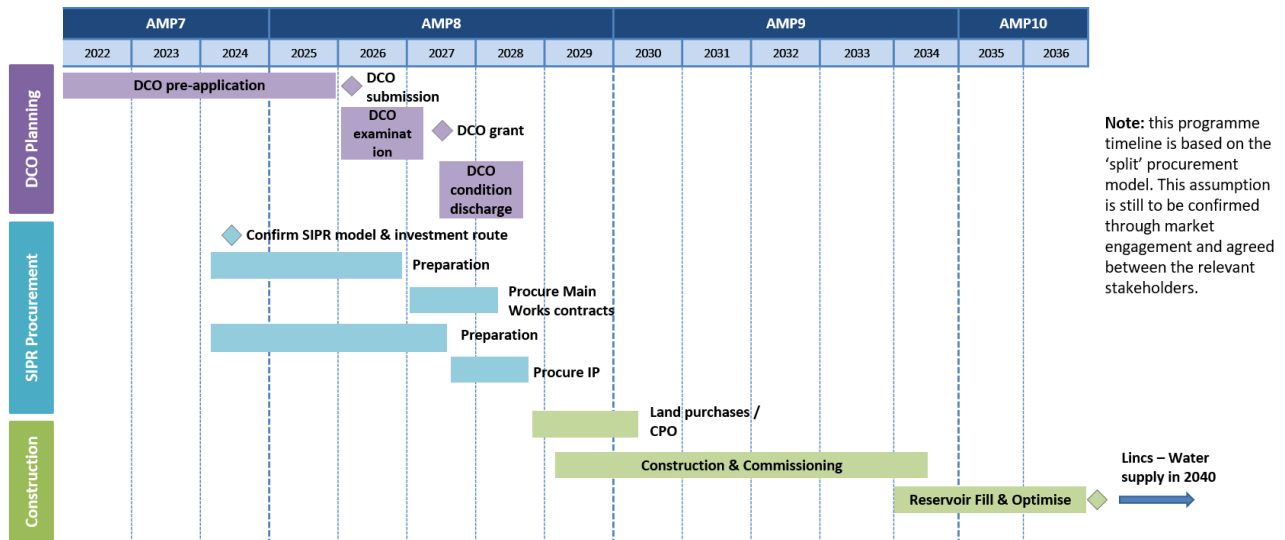
## Project delivery

Anglian Water is proposing to deliver the Lincolnshire Reservoir scheme via an Infrastructure Provider (IP) who would be appointed following **competitive tender under the Specified Infrastructure Projects Regulations (SIPR) 2013**<sup>6</sup>. This could see the IP finance, construct, own, operate and maintain the reservoir. Anglian Water is currently developing and assessing options in respect of the delivery arrangements for the project.

The Lincolnshire Reservoir is required to be in supply by the late 2030s. It is currently estimated that construction work will begin between 2029 and 2031. This allows for the consenting process for Nationally Significant Infrastructure Projects prior to construction starting, as well as a three-year filling period once work is complete.

<sup>6</sup> [The Water Industry \(Specified Infrastructure Projects\) \(English Undertakers\) Regulations 2013](#)

## Current proposed timeline for Lincolnshire Reservoir



On 13 November 2023, Anglian Water launched a Request for Information (RFI) as part of the initial round of market engagement. The RFI concluded on 27 November 2023. Anglian Water is in the process of organising bilateral discussions with the market on the initial delivery model proposals **and welcomes expressions of interest and feedback from potential investors, as well as Tier 1 and Tier 2 contractors with experience in delivering major earthworks, treatment works and transfers.**

The second round of market engagement is planned for spring 2024. During this phase, Anglian Water will seek to outline the proposed commercial and tender arrangements for the delivery of the Lincolnshire Reservoir.

Anglian Water can be contacted at: [SROReservoirsmarketengagement@anglianwater.co.uk](mailto:SROReservoirsmarketengagement@anglianwater.co.uk) if you are interested in engaging with them further on the scheme.

Further information on the Lincolnshire Reservoir can also be found [here](#).