Thames Water

Working with

Affinity Water
Taking care of your water

WATER for LIFE
Southern Water

South East Strategic Reservoir Option (SESRO)

Statutory Consultation Brochure

Autumn 2025

Foreword

Leonie Dubois

Head of Engagement, Land and Consents,

Strategic Resource Options, Thames Water

This summer was the hottest on record. Extensive parts of the country faced water shortages and the South East was designated as "seriously water stressed" by the Environment Agency.

The UK is facing a growing threat from regular droughts and in the South East, one of the driest regions in the country, securing a reliable supply of water is becoming increasingly urgent. We must act now to protect people, nature, and the economy for decades to come.

That's why we're proposing a new reservoir in Oxfordshire, near Abingdon. Providing a secure water supply for millions of people across the South East, the new reservoir will help protect both water customers and the environment from the effects of drought.

However, this is more than just a vital piece of national water infrastructure—it's a once-in-a-generation opportunity to create a lasting legacy for the local area.

Our vision is bold and far-reaching: to build an essential reservoir that will help safeguard water supplies for the next 100 years and beyond, while also creating a vibrant, inclusive space for people and nature. From new woodlands and walking trails to opportunities for water sports, education, and community connection, this reservoir will be a place to explore, unwind, and thrive.

We're designing it to reflect the character of the local landscape and to become a destination in its own right—supporting biodiversity, boosting the regional economy, and offering something for everyone.

After years of planning and engagement, we've now reached a major milestone: the launch of our statutory public consultation.

The consultation will run for **11 weeks,** from **28 October 2025** to **13 January 2026.**

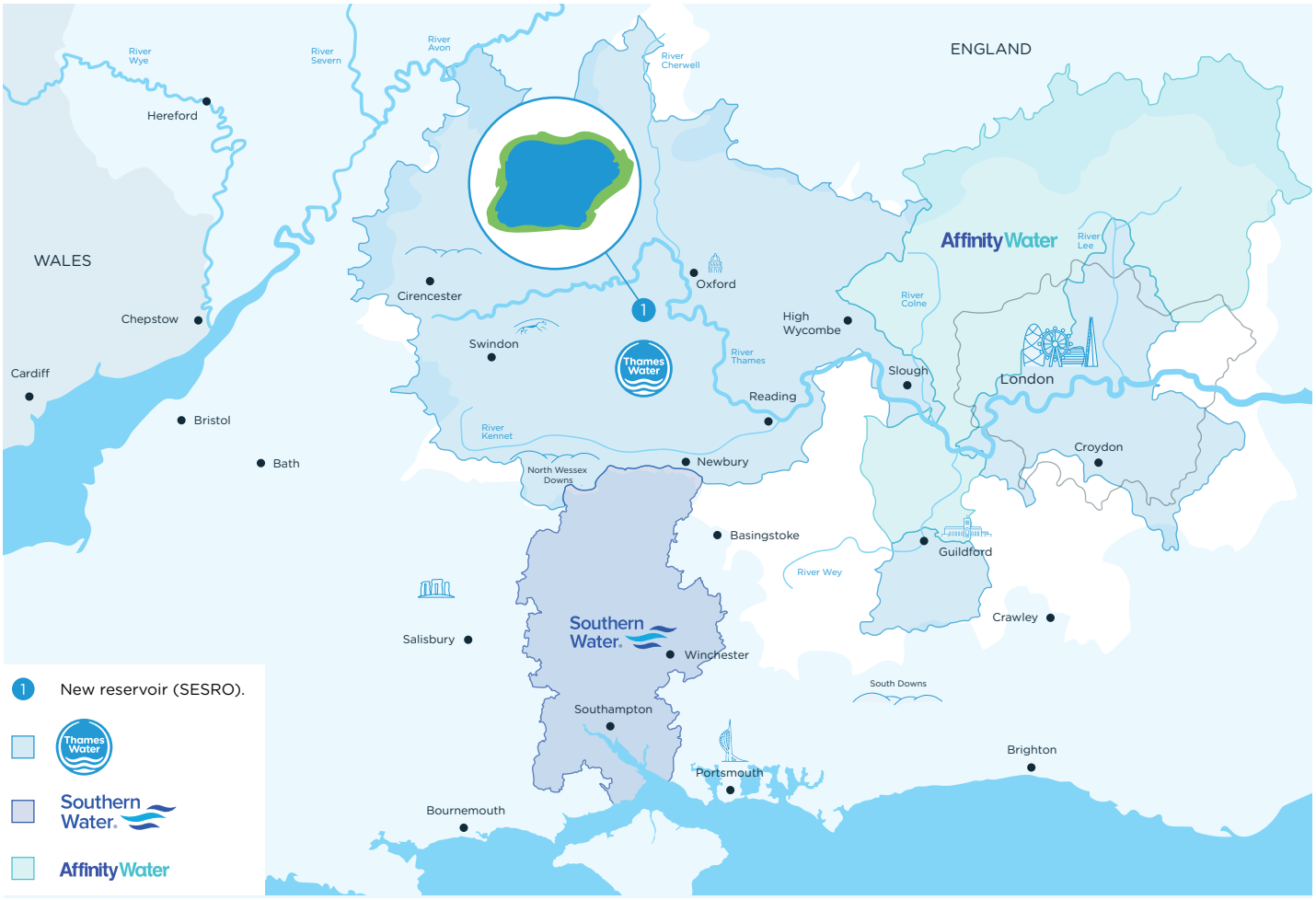
We invite you to take part and have your say on our proposals for this exciting new development. This is your opportunity to help shape the future of this essential project.

Best wishes,
Leonie Dubois

About us

We're proposing a new reservoir to the south west of Abingdon, which would supply water to 15 million people in the South East, including customers in the Thames Water, Affinity Water and Southern Water areas.

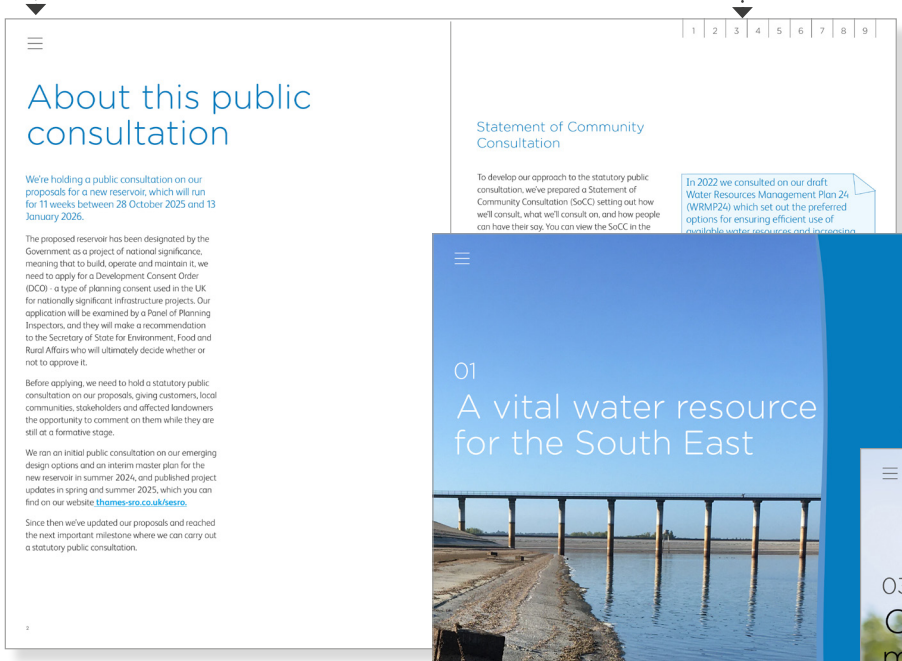
Thames Water is responsible for leading the delivery of the reservoir including the procurement strategy, design, environmental assessment, consenting and land acquisition. Southern Water and Affinity Water are active partners and beneficiaries of the project.



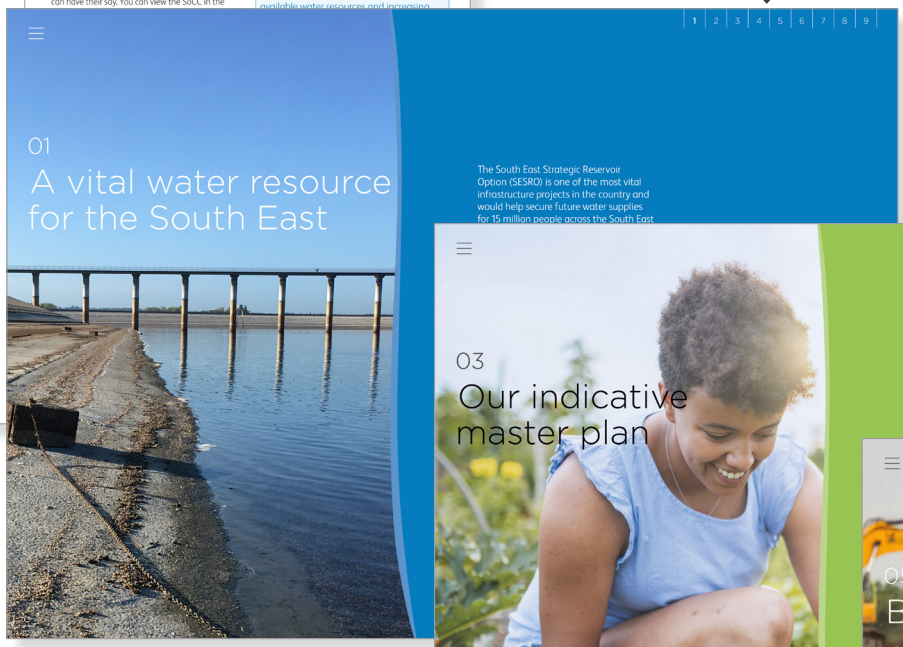
Click here to go to the main contents page

Click here to go to the start of any chapter. A **bold number** represents the current chapter.

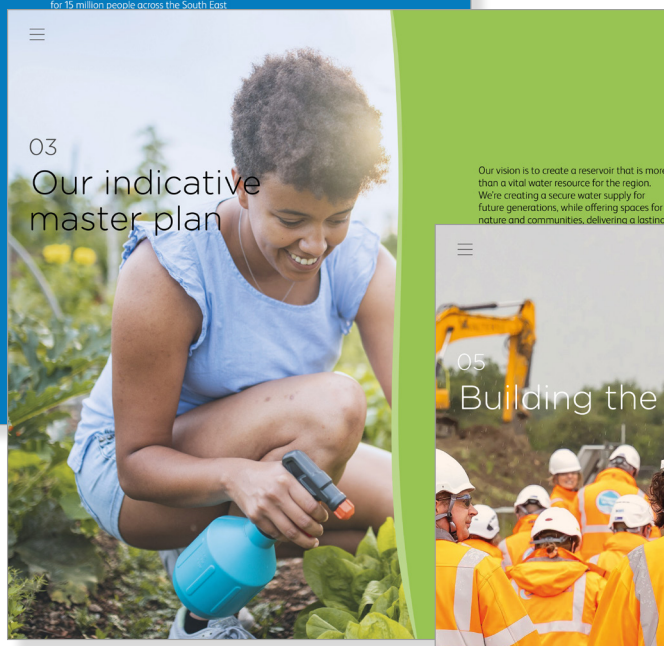
See **blue** divider pages for chapters within the **'why'** section of the brochure.



About this public consultation



'Why' section



'What' section

'How' section

How to use this document

This document is available in print and screen formats.

Please use the different coloured tabs illustrated here to navigate to each section.

When viewing on screen please use the interactive QR code and hyperlinks to help navigate around the document and have your say on our consultation.

Why: Learn why a new reservoir is needed to secure our future water supplies.

What: Find out about our current proposals.

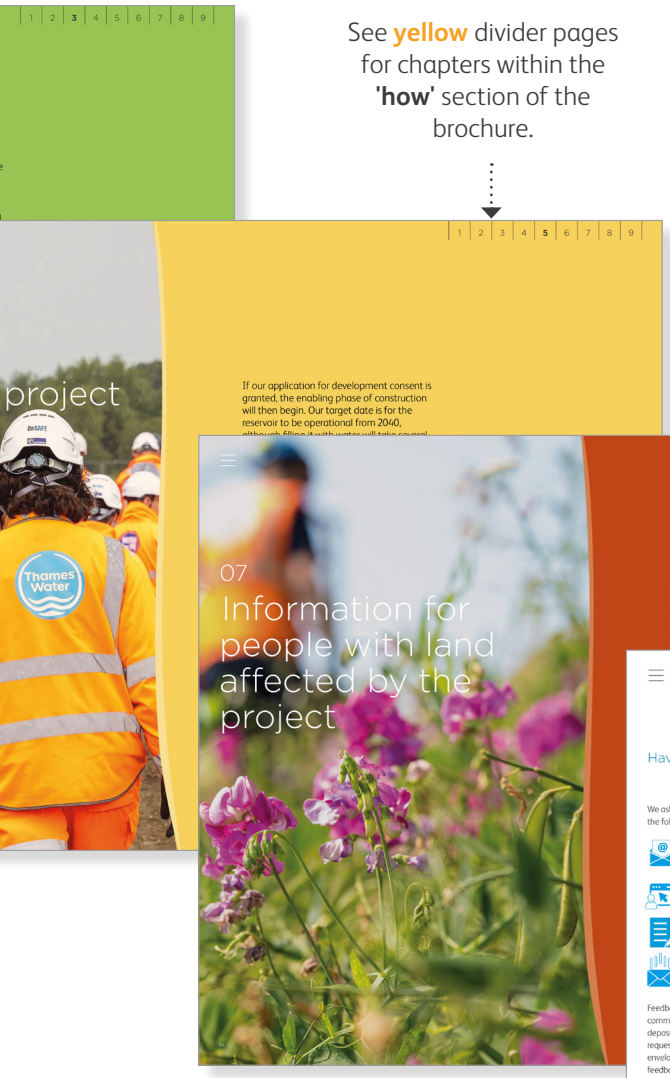
How: Discover how the reservoir would be built and how environmental effects could be managed.

What comes next: Find about the next steps for the project.

See **green** divider pages for chapters within the **'what'** section of the brochure.

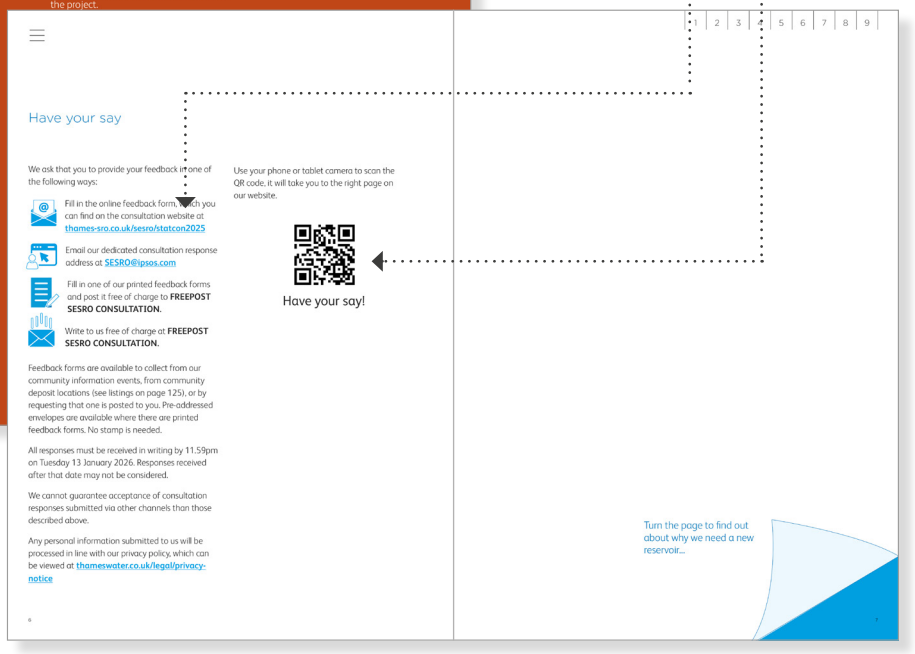
See **yellow** divider pages for chapters within the **'how'** section of the brochure.

See **red** divider pages for chapters within the **'what happens next'** section of the brochure.



'What happens next' section

Click the hyperlinks or scan the QR codes to view more information online.



Interactive features

Contents

About this public consultation

We're holding a public consultation on our proposals for a new reservoir, which will run for 11 weeks between 28 October 2025 and 13 January 2026.

The proposed reservoir has been designated by the Government as a project of national significance, meaning that to build, operate and maintain it, we need to apply for a Development Consent Order (DCO) - a type of planning consent used in the UK for nationally significant infrastructure projects. Our application will be examined by a Panel of Planning Inspectors, and they will make a recommendation to the Secretary of State for Environment, Food and Rural Affairs who will ultimately decide whether or not to approve it.

Before applying, we need to hold a statutory public consultation on our proposals, giving customers, local communities, stakeholders and affected landowners the opportunity to comment on them while they are still at a formative stage.

We ran an initial public consultation on our emerging design options and an interim master plan for the new reservoir in summer 2024, and published project updates in spring and summer 2025, which you can find on our website **thames-sro.co.uk/sesro.**

Since then we've updated our proposals and reached the next important milestone where we can carry out a statutory public consultation.

Statement of Community Consultation

To develop our approach to the statutory public consultation, we've prepared a Statement of Community Consultation (SoCC) setting out how we'll consult, what we'll consult on, and how people can have their say. You can view the SoCC in the document library on our consultation website, at **thames-sro.co.uk/sesro/statcon2025**.

In 2022 we consulted on our draft Water Resources Management Plan 24 (WRMP24) which set out the preferred options for ensuring efficient use of available water resources and increasing supplies in the Thames Water area, including proposals for the new reservoir. Our Plan was approved by the government earlier in 2025. This is why we're not consulting on matters like the need for the project, its location, or the amount of water it could provide - they're settled by the published WRMP24.

What we're consulting on

- ✓ Our indicative master plan
- ✓ Our current design proposals
- ✓ Indicative construction activities and schedule
- ✓ Managing potential impacts on local communities and the environment
- ✓ Our approach to sustainability, project benefits and legacy

What we're not consulting on

- ✗ The need for the project
- ✗ Our other water resources projects
- ✗ Our metering and leakage programmes
- ✗ Other parts of our business

Our public consultation documents and where to find them

We've produced a range of consultation documents, in addition to this brochure, to help you find out more and have your say.

You can find these:

- On our public consultation website at **thames-sro.co.uk/sesro/statcon2025**
- At our in-person community information events, listed at **thames-sro.co.uk/events** or on page 124 of this brochure.
- At our community deposit locations, also listed on our website, at: **thames-sro.co.uk/sesro/statcon2025** or on page 125 of this brochure.

We'll post out printed copies of the brochure and feedback form free of charge (one set per household) on request. You can also request printed copies of all the consultation documents, although there may be a charge for this, up to a maximum of £200 (including VAT, postage and packing). We'll consider requests for alternative formats of consultation materials such as translations into other languages, large print or Braille.

To request paper copies or versions in an alternative language, please contact our dedicated engagement team via email at **info.SESRO@thameswater.co.uk** or by leaving a message via our consultation freephone line: **0800 033 6677.**

Understanding our proposals

 **Consultation Brochure**	The consultation brochure summarises our proposals, including what the project is and how we'd build it, potential environmental effects and mitigation, plus information for people with an interest in land impacts and about the consultation. The brochure also lists event details and where you can view printed consultation materials near you
 **Easy Read brochure**	A highly simplified version of the brochure
 **Map Book**	The map book shows our draft Order Limits (the land needed for the project) and information about temporary and permanent land use, as well as reservoir and embankment sections, and tunnel plans and sections
 **SESRO: video 1 About the project**	This video explains how the project works and presents visualisations of the current designs of key project components
 **SESRO: video 2 Building the project**	This video summarises how and where we'd build the project

Managing environmental effects

 **Preliminary Environmental Information Report (PEI Report)**	The PEI Report presents our current assessments of the potential environmental impacts of the project and what our current plans are to manage these. Includes the draft Code of Construction Practice as an appendix
 **PEI Report Non-Technical Summary (NTS)**	The Non-Technical Summary (NTS) of the PEI Report provides summaries for each of the assessed aspect areas
 **Digital PEI Report NTS**	The contents of the PEI Report NTS are presented in an interactive online format available on our website

Other supporting materials

 **Draft design principles**	This document explains the project's design, including information about Design Principles, and how we'd operate and maintain the project
 **Delivering a sustainable legacy for people and nature**	This document outlines how sustainability has been at the heart of our designs and plans for the reservoir
 **Land and Property fact sheet**	This fact sheet provides information relevant to people with an interest in land impacts affected by the project. If you'd like to contact the project's dedicated Land and Property team, email them at **property.SESRO@thameswater.co.uk**
 **Reservoir Safety and Operation fact sheet**	This fact sheet provides information relating to the safe operation of the reservoir.

Have your say

We ask that you to provide your feedback in one of the following ways:

Fill in the online feedback form, which you can find on the consultation website at **thames-sro.co.uk/sesro/statcon2025**

Email our dedicated consultation response address at **SESRO@ipsos.com**

Fill in one of our printed feedback forms and post it free of charge to **FREEPOST SESRO CONSULTATION.**

Write to us free of charge at **FREEPOST SESRO CONSULTATION.**

Feedback forms are available to collect from our community information events, from community deposit locations (see listings on page 126), or by requesting that one is posted to you. Pre-addressed envelopes are available where there are printed feedback forms. No stamp is needed.

All responses must be received in writing by 11.59pm on Tuesday 13 January 2026. Responses received after that date may not be considered.

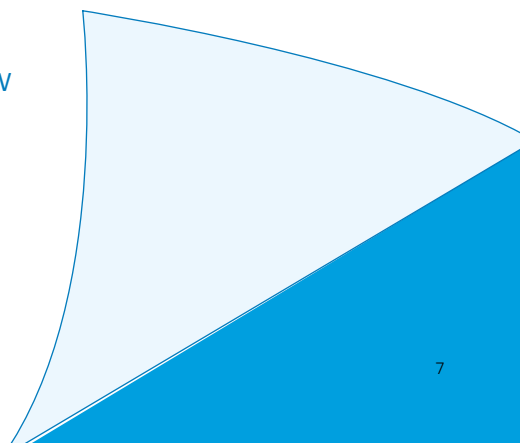
We cannot guarantee acceptance of consultation responses submitted via other channels than those described above.

Any personal information submitted to us will be processed in line with our privacy policy, which can be viewed at **thameswater.co.uk/legal/privacy-notice**

Use your phone or tablet camera to scan the QR code, it will take you to the right page on our website.

Have your say!

Turn the page to find out about why we need a new reservoir...



01

A vital water resource for the South East

The South East Strategic Reservoir Option (SESRO) is one of the most vital infrastructure projects in the country and would help secure future water supplies for 15 million people across the South East – including customers served by Thames Water, Southern Water and Affinity Water.

The proposed new reservoir would be located between the A34 to the east, the Great Western Main Line railway to the south, the A338 to the west, and the River Ock to the north.

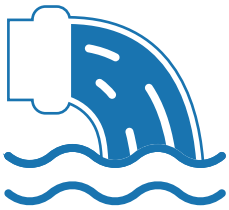
The site was chosen because:

- It's close to the River Thames
- It has reasonably flat land and the right geology and ground conditions for a reservoir, e.g. the site has enough thickness of clay to retain large volumes of water
- It's adjacent to a railway line and has major road links that could be used to deliver construction materials
- There are very few environmentally designated sites in the vicinity

Location of the proposed new reservoir

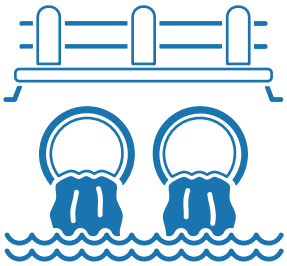

A34
Abingdon
River Thames
Marcham
River Ock
Drayton
A34
Steventon
Great Western Main Line railway

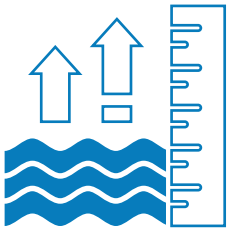
How it would work



Water would be **pumped** from the River Thames into the reservoir when river flows were **high** with plenty of **available water.**

A new water intake from the river would allow us to **draw water via a tunnel** to the reservoir. The water would **slowly fill the reservoir** over the wetter part of the year.

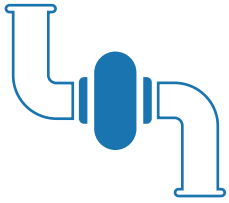




Then, during **drier periods**, we could release water from the reservoir back into the river **via an outfall structure.**

This released water would flow downstream to existing **water treatment works** to be treated and put into the **supply network** for homes and businesses.

A new water treatment works at the reservoir site would also allow for potable water to be pumped via a **new pipeline** to Southern Water customers. The pipeline itself would be subject to a separate planning application and consultation.



Operational capacity and size

The reservoir's surface area would be around 6.7 square kilometres and it would have an operational capacity of 150Mm^3 of water. Its embankments would be created with a broad base and gentle slopes. Instead of a steep-sided "wall", we're designing the slopes to be gradual and landscaped, with hedgerows, trees and pastures.

Filling and emptying the reservoir

A pumping station would move water into the reservoir when there's enough water in the river. Gravity and controlled gates would let water back into the river.

A tunnel to the Thames

A new underground tunnel would provide the main connection to the River Thames. This would also serve as an emergency release, allowing us to safely remove water from the reservoir if needed.

How would the new reservoir be paid for?

To provide best value for customers, we're proposing that a new company, an 'Infrastructure Provider', would be selected through a bidding process to deliver the detailed design, construction, finance and potentially some maintenance activities for the reservoir.

This would be done under special rules (called the Specified Infrastructure Projects Regulations, or SIPR). These rules allow water companies to bring in outside organisations to handle big projects like this, including financing and long-term upkeep. Because it's a competitive process, it can often introduce new ideas and lower costs.

Over the long term, the funding would be repaid through Thames Water, Southern Water and Affinity Water customers' bills.

A similar method was used for the Thames Tideway Tunnel project in London, the first project delivered under SIPR.

How much would the reservoir cost?

Our most recent estimate for the cost to build the new reservoir is between £5.5bn and £7.5bn (in 2022/23 prices).

It is normal practice that with a project of this size and complexity, time is taken to evolve its design and better understand what it will take to deliver it.

Whilst we have been able to develop this far more detailed cost estimate over the last 12 months, it remains an estimate, and there is further work to be done on design, planning and commercial arrangements.

Our estimated costs to operate the reservoir, including maintaining and replacing equipment and machinery, is £1.9bn over a 65-year period (also based on 2022/2023 prices).

We remain confident that the reservoir is the best-value option for securing water supplies for 15 million people across the South East, including Thames Water, Affinity Water and Southern Water customers.

Connecting the reservoir to customers

The proposed new reservoir would help ensure a secure and sustainable supply of water to local customers, as well as homes and businesses across London and the South East of England. It would help to ensure water security for 15 million people across the South East.

Thames Water customers in Swindon and Oxfordshire

The new reservoir could provide water for customers in the Oxfordshire and Swindon area via a new transfer pipeline from the site to the existing Farmoor Reservoir. A section of the pipeline, between the new reservoir and Marcham Road, would be delivered as part of this project, whilst the remainder is planned to be delivered as a separate project, ready by 2040. Space would also be reserved on the reservoir site for a potential future water treatment works and pipeline, which could provide additional drinking water to customers in the Swindon and Oxfordshire areas.

Thames Water and Affinity Water customers in London and the Thames Valley

Water from the new reservoir would be released back into the River Thames via a proposed new outfall structure on the riverbank, to flow downstream to be abstracted for Thames Water and Affinity Water customers in London and the Thames Valley.

Southern Water, South East Water and Thames Water customers in Hampshire and Berkshire

Water from the new reservoir would be transferred via a new water treatment works and a new pipeline as part of the Thames to Southern Transfer (T2ST) project. Drinking water would be piped to the Southern Water supply area in Hampshire, Thames Water customers in the Newbury area and South East Water customers in the Basingstoke supply area. We're including plans for the water treatment works and the first section of pipeline between the treatment works and a location close to the railway in our proposals. Southern Water will seek consent for the rest of the pipeline through a separate Development Consent Order application.

Find out more
To find out more about our proposals for transferring water to and from the reservoir site, including the Thames Water, Southern Water and Affinity Water areas, please turn to the **'Designing the new reservoir'** chapter in this brochure.

More than a reservoir

A future Severn to Thames Transfer

A separate project called the Severn to Thames Transfer (STT) is potentially needed in the future to provide additional water for the proposed new reservoir. The STT would transfer water from the North West and the Midlands via the River Severn, with a new pipeline being constructed between the River Severn and the reservoir site. Space for a connection into the new reservoir is being reserved as part of our ongoing design work.

While the main purpose of the new reservoir would be to supply water, we are also designing it to create a natural space with new habitats to encourage greater biodiversity and provide a place for local communities to enjoy.

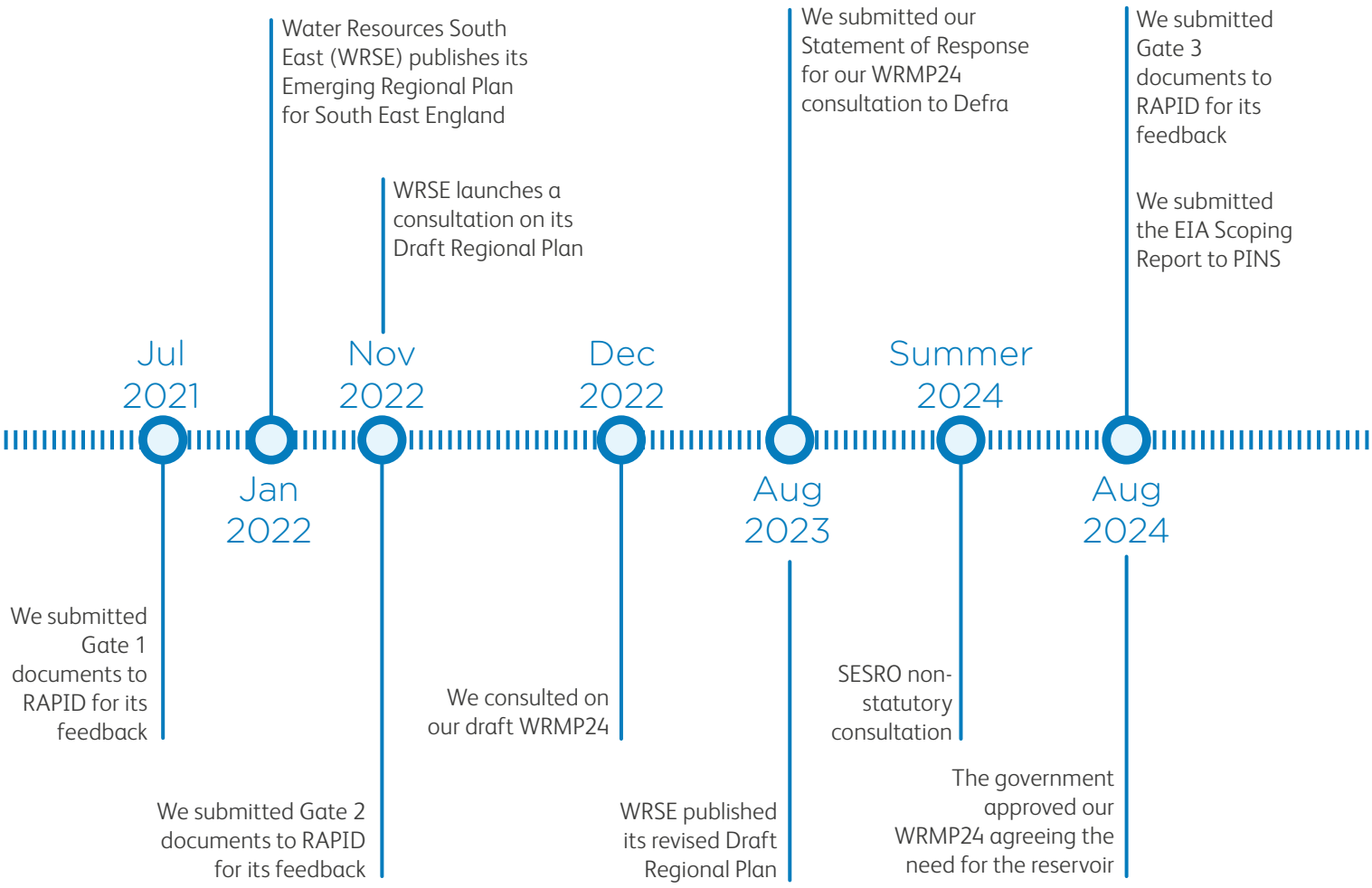
Find out more
To find out more about proposals for new habitats, wetlands and recreational activities on the reservoir site please see to the **'Designing the new reservoir'** chapter in this brochure, on page 34.

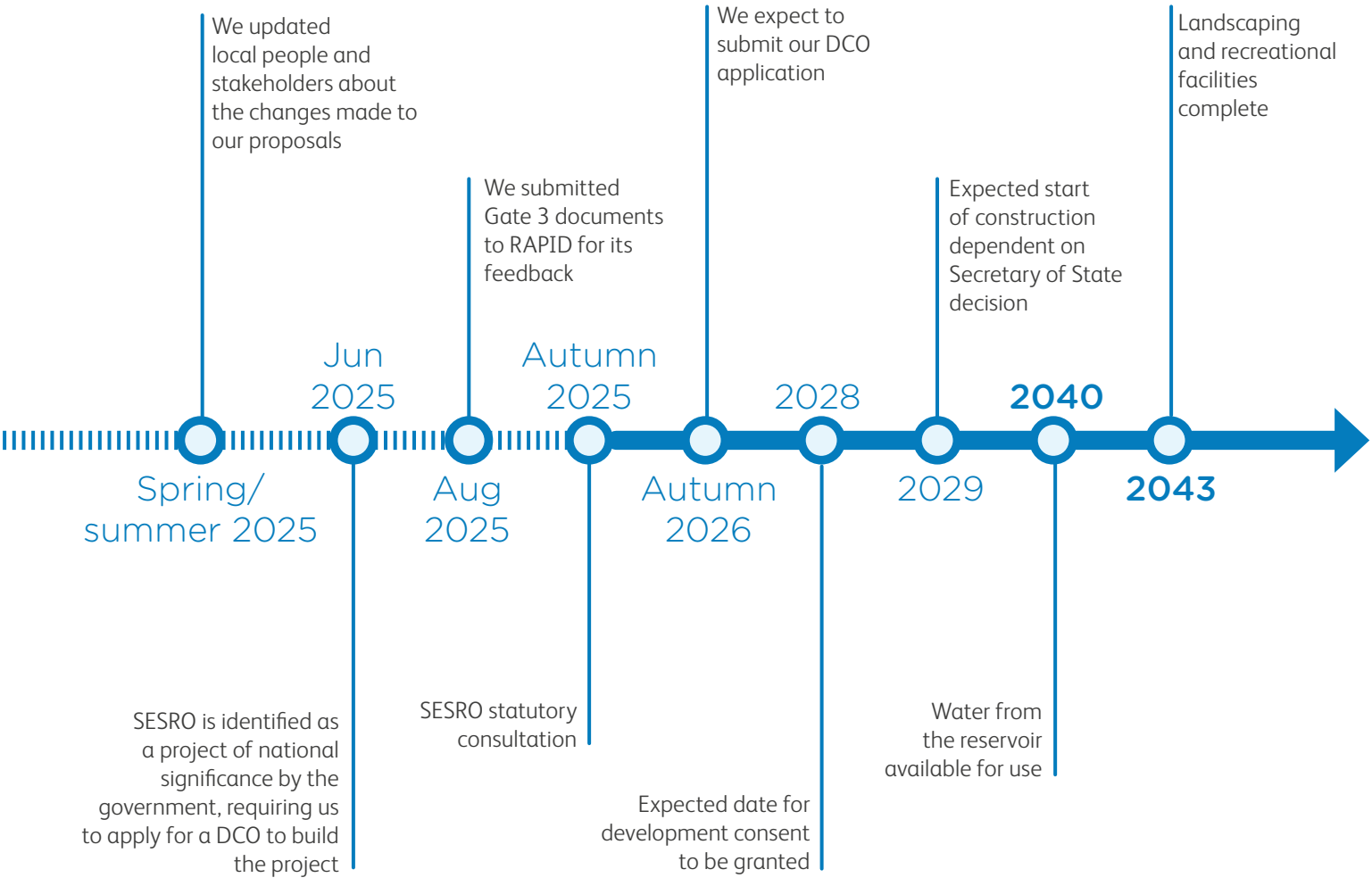
Our sustainability strategy 'Delivering a sustainable legacy for people and nature' also provides more detail. You can find this document on our website at **thames-sro.co.uk/sesro/statcon2025**

Project timetable

Because this project is designated a Strategic Resource Option (SRO), it is being progressed under the careful oversight of RAPID (the Regulators' Alliance for Progressing Infrastructure Development), an organisation made up of Ofwat, the Drinking Water Inspectorate and the Environment Agency.

At each "gate" in the RAPID process, our work has been independently reviewed to confirm both progress and funding.




We updated local people and stakeholders about the changes made to our proposals
We submitted Gate 3 documents to RAPID for its feedback
We expect to submit our DCO application
Expected start of construction dependent on Secretary of State decision
Landscaping and recreational facilities complete
Spring/ summer 2025
Jun 2025
Aug 2025
Autumn 2025
Autumn 2026
2028
2029
2040
2043
SESRO is identified as a project of national significance by the government, requiring us to apply for a DCO to build the project
SESRO statutory consultation
Expected date for development consent to be granted
Water from the reservoir available for use

02

Why do we need a new reservoir?

Water supplies in the South East are under threat.

The South East of England is facing the possibility of a significant water shortage over the next 20 to 25 years. This is largely due to **climate change, a growing population, environmental pressures** and **increasing droughts.** These factors are placing a huge, and growing, strain on our water supplies.

We're already seeing the impact of climate change

The Met Office has described Summer 2025 as 'the hottest on record' and, in the Thames Water region alone, we've had less than half the rainfall we would expect over the summer months.

Not having enough water could mean:

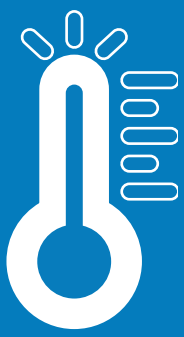
- Schools and businesses being closed
- Navigable waters, such as canals, being closed
- Water restrictions or rationing, for example relying on standpipes in streets
- Having to abstract more water from rivers and streams, impacting habitats and wildlife
- Decreasing crop yields and higher food prices.

The worst droughts could cost London's economy up to £500 million every day – as well as disrupting our daily lives.

We forecast that we'll need an extra 1 billion litres of water every day for our customers by 2050. Doing nothing is not an option.

Climate change

The South East's water supply is at risk as the region is experiencing **hotter, drier summers and warmer, wetter winters.**



The Met Office has reported that spring 2025 was the warmest and driest spring in the UK for more than **60 years**, with the country receiving only just over half the expected rainfall.

The UK's climate trend is consistent with that observed globally, and we are seeing an increase in average annual temperatures, more frequent and severe droughts and changes in rainfall patterns.

Population growth

Alongside climate change, our population is growing, increasing the demand for water. Thames Water serves drinking water to over **10 million** customers in more than 4 million properties, with an annual increase of **100,000 people** over the past decade.

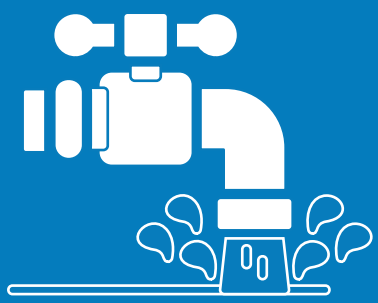
By 2050, we forecast there will be over 2 million more people living in our area, and by 2075, we forecast the population will rise to over **13 million**. This will significantly increase water demand on an already stressed system.

Environmental pressures

The environment also needs more water, too. To protect our environment, we need to leave more water in sensitive rivers, streams and underground sources by reducing the amount we take out. For example, chalk streams are extremely rare, ecologically vital and support a rich biodiversity.

Only 200 chalk rivers are known globally, **85%** of which are found in the UK in southern and eastern England. We and other water companies are looking to reduce the amount of water we take from these precious habitats.

Increasing drought resilience



Each year there is a **1 in 100** chance we'll need to introduce **severe water use restrictions**, such as temporary use bans and public water collection points. To meet government standards, we need to reduce this to a **1 in 200** chance by the mid-2030s and a **1 in 500** chance by **2040.**

Finding solutions

Making the most of the water supplies we have

We are taking ambitious steps to reduce water leakage and encourage efficient water use. This includes both improvements to our water supply infrastructure including water pipes, and customer-focused initiatives, supported by government policy.

Tackling leakage

Over the past five years we've reduced leakage by 13%, but we recognise there's more to do. We're focused on finding and fixing leaks faster, targeting the largest leaks first. By 2030, we're aiming to reduce leakage by 23% and have committed to halving leakage by 2050 in line with government targets.

Under our five-year business plan (2025 -2030), we're investing over £2.5bn to reduce leakage, including targeting our largest leaks, with an ambitious mains pipe replacement programme.

In the past decade, we've installed over 1.2 million smart meters across London and the Thames Valley, with plans to install 1 million more by 2030 and reach 3 million by 2035.

Smart meters not only help our customers to use water wisely but also enable us to quickly detect leaks.

Around a third of leaks are located on customers' properties. Smart meters have helped us detect over 104,000 customer side leaks, saving around 146 million litres of water a day, which is enough to fill approximately 1.8 million baths.

Underpinning 80% of our plan to protect future water supply is a commitment to reduce leakage and to support customers in reducing their demand. However, this alone isn't enough. We need to invest in new sources of water, including our proposed reservoir.

Increasing our water storage capacity

The government, regulators and water companies are coordinating nationally and regionally to deliver projects which increase water supplies.

Extensive modelling and technical assessment work has been carried out to identify critical projects for addressing the water shortfall. Across the South East we looked at more than 1,400 options and the proposed new reservoir to the south west of Abingdon came out among the best of them based on cost, value for money and security of supply.

The new reservoir would help to secure water for millions – supplying up to 271 megalitres per day to millions of people, for the next century and beyond. It would also help protect the environment by reducing abstractions from sensitive rivers and groundwater sources – such as the Test and Itchen, which are rare chalk streams in Hampshire.

Our proposed new reservoir isn't the only one being planned which shows the importance of this type of infrastructure; there are other reservoirs being developed across England to ensure there is enough water for the country's needs.

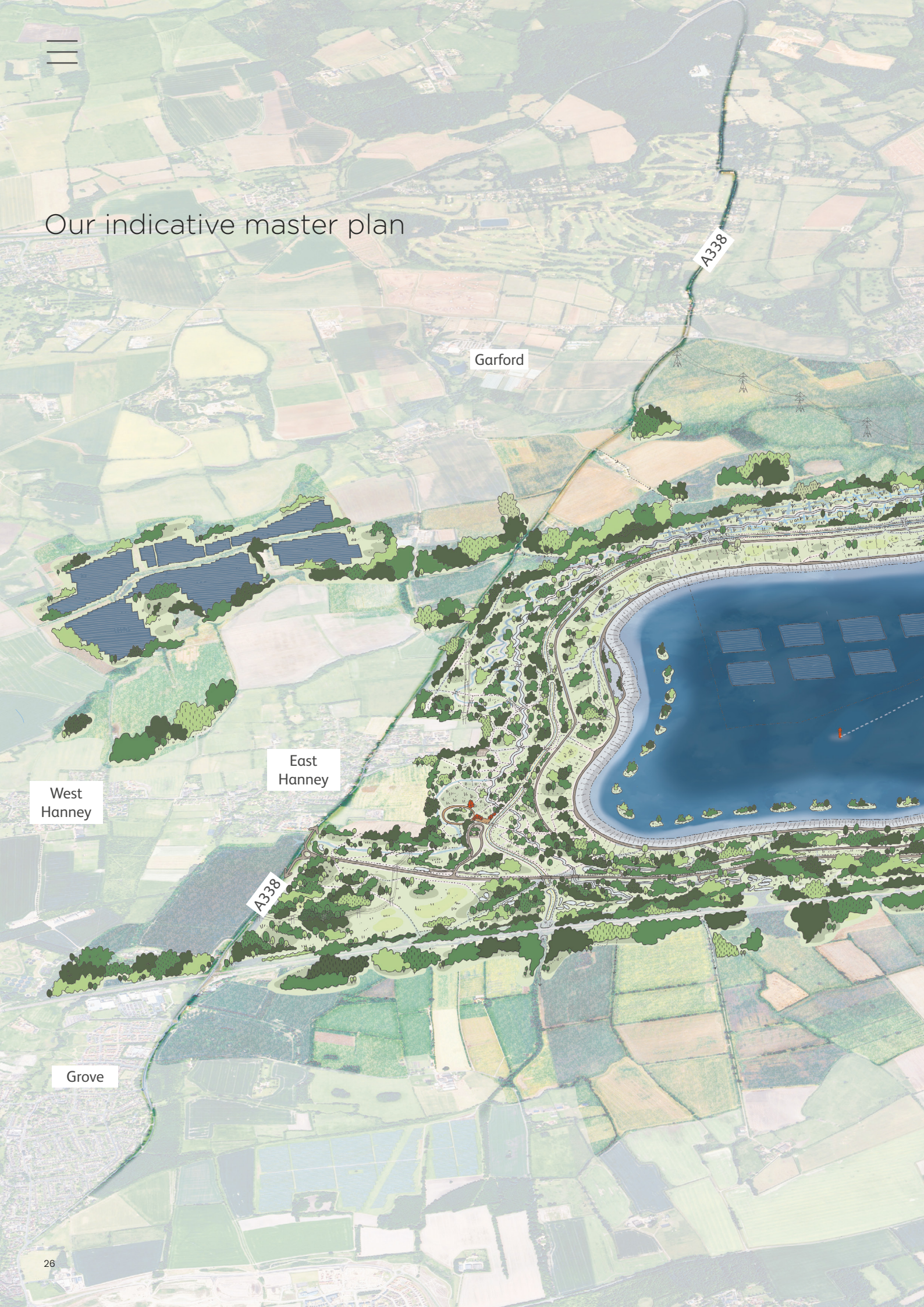
03

Our indicative master plan

Our vision is to create a reservoir that is more than a vital water resource for the region. We're creating a secure water supply for future generations, while offering spaces for nature and communities, delivering a lasting legacy for people and the environment.

Have your say!

Our indicative master plan




A34
Abingdon
River Thames
Marcham
River Ock
Drayton
A34
Didcot
Steventon
N

The three core themes that supports our vision

More than a reservoir – Our aim is to create a strong sense of place, one that celebrates local character and is sympathetic to its surroundings while also embracing the reservoir's potential to be a regionally and nationally significant destination for visitors looking to spend time in the outdoors.

Space for nature – We're designing the space around the reservoir to provide recreational areas, new woodlands, walking trails and a blend of habitats for local wildlife. This ecological framework will help protect and enhance biodiversity, helping contribute to a thriving natural environment within and around the reservoir.

Place for people – We're committed to working with local communities, businesses and environmental groups to shape a sustainable future – creating a shared asset that benefits everyone for generations to come. Our aim is to create new jobs through the construction of the reservoir, and once open, attract visitors and boost tourism, supporting the regional economy for the longer term. Whether you're into water sports, cycling, walking, or just soaking up the outdoors, this will be a safe, accessible and inclusive space that has something for everyone. Educational spaces will enable people to discover more about the environment and the reservoir will provide opportunities for people to unwind, explore and connect with nature - contributing to an improved quality of life.

Delivering a sustainable legacy for people and nature

Sustainability is about meeting today's needs while contributing to the long term health and resilience of communities and the environment. We believe this is central to the development of this critical new reservoir, aligning with our project vision to deliver a space for nature and a place for people.

Our sustainability priorities are to: protect water resources; enhance the environment; provide new green and blue spaces for leisure and recreation; involve and contribute to the local community; support carbon net zero; adapt to climate change; use resources efficiently and minimise waste; and support an inclusive local and regional economy. Our eight sustainability priorities are shown on the outside of indicative design framework on page 31, having been embedded within the draft design principles and closely reflected through the vision.

Find out more out about our sustainability strategy in our 'Delivering a sustainable legacy for people and nature' document, which can be found on our website **thames-sro.co.uk/sesro/statcon2025**

A space for nature, a place for people

As our reservoir proposals have evolved, so too has the potential legacy it could have. SESRO is a critical drought insurance policy for the South East for the next century, but it's also being designed as a place for people to use and enjoy for many years to come.

At this exciting stage in development, it's important that we give the project a new identity: one that better reflects the crucial role it will play in shoring up water supply, as well as the broader benefits it will deliver.

In developing this new identity, we've involved a range of stakeholders, including customers across the Thames Water, Southern Water and Affinity Water areas.

We've selected **White Horse Reservoir** as the project's new name, with a strapline of 'a space for nature, a place for people.'

For us, White Horse Reservoir roots this project in local heritage and in the natural world around us.

Equally important as the project's new name, the strapline tells us more about where the project's strengths lie; a space for nature, a place for people.

Our draft Design Principles

To bring our vision to life, we've created a set of indicative Design Principles to guide the project. These principles will guide the parameters that must be met in the final detailed design of the new reservoir.

They will ultimately be submitted as part of our Development Consent Order application, so that subsequent design development and construction planning for the new reservoir would need to adhere to them.

Find out more

We consulted on a previous set of draft design principles during our 2024 public consultation, and using the feedback received, along with further stakeholder engagement with people and organisations such as the Design Council, we've revised them and consolidated them into 19 principles.

These are set out in our '**draft Design Principles**' document, which you can find on our website at **thames-sro.co.uk/sesro/statcon2025.**

Have your say!

Indicative design framework

Our indicative master plan

Our plans are ambitious. To help achieve our vision for the reservoir, we've developed an indicative master plan which sets out how the site could be arranged.

We've been engaging stakeholders and local communities, gathering feedback through consultations, focus groups, and workshops. We've also undertaken lots of technical studies and surveys to help develop the plan.

What is a master plan?
A master plan is a big-picture plan that shows how a place could develop over time. It sets out the layout of key features — such the reservoir, operational buildings and infrastructure, roads, paths, green spaces, and recreational facilities — to make sure everything works well together and creates a connected, sustainable place that integrates with the surrounding area.

Indicative master plan subject to design development

Have your say!

A father and daughter explore Kempton Nature Reserve

04
Designing the new reservoir

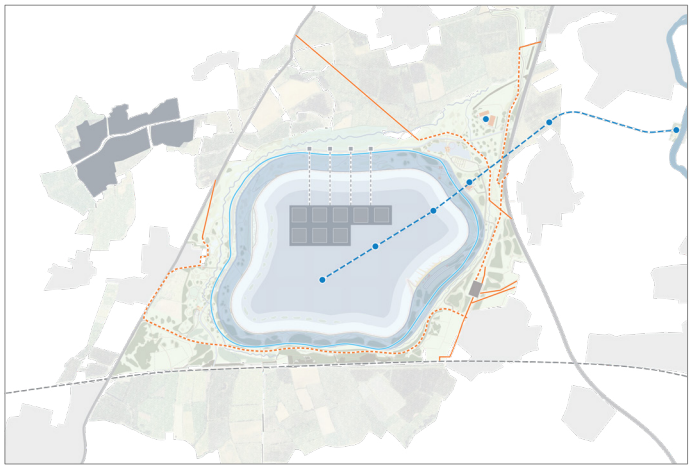
This chapter introduces our proposed designs for the new reservoir, organised into four key themes:

- Infrastructure
- Environment
- Movement
- Recreation and amenity

Have your say!

Infrastructure

The reservoir itself and the infrastructure needed to collect and store water and move it to where it's needed. This also includes utility diversions and our proposals for renewable energy.



Environment

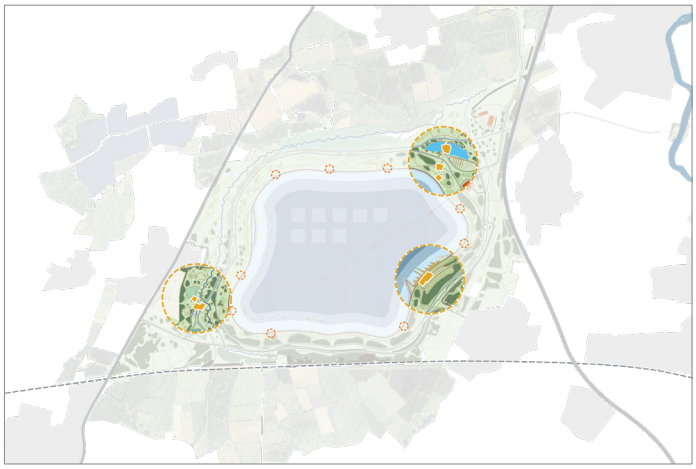
The environmental features of the site, such as grasslands and wooded areas, habitats, seasonal wetlands, lagoons and islands.

Movement

Our proposals for how people will be able to reach the reservoir site and move around it.

Recreation and amenity

Our proposals for a network of recreational and amenity facilities arranged around three main hubs: A centre for visitors and recreational lakes, a centre for water sports and a nature education centre.

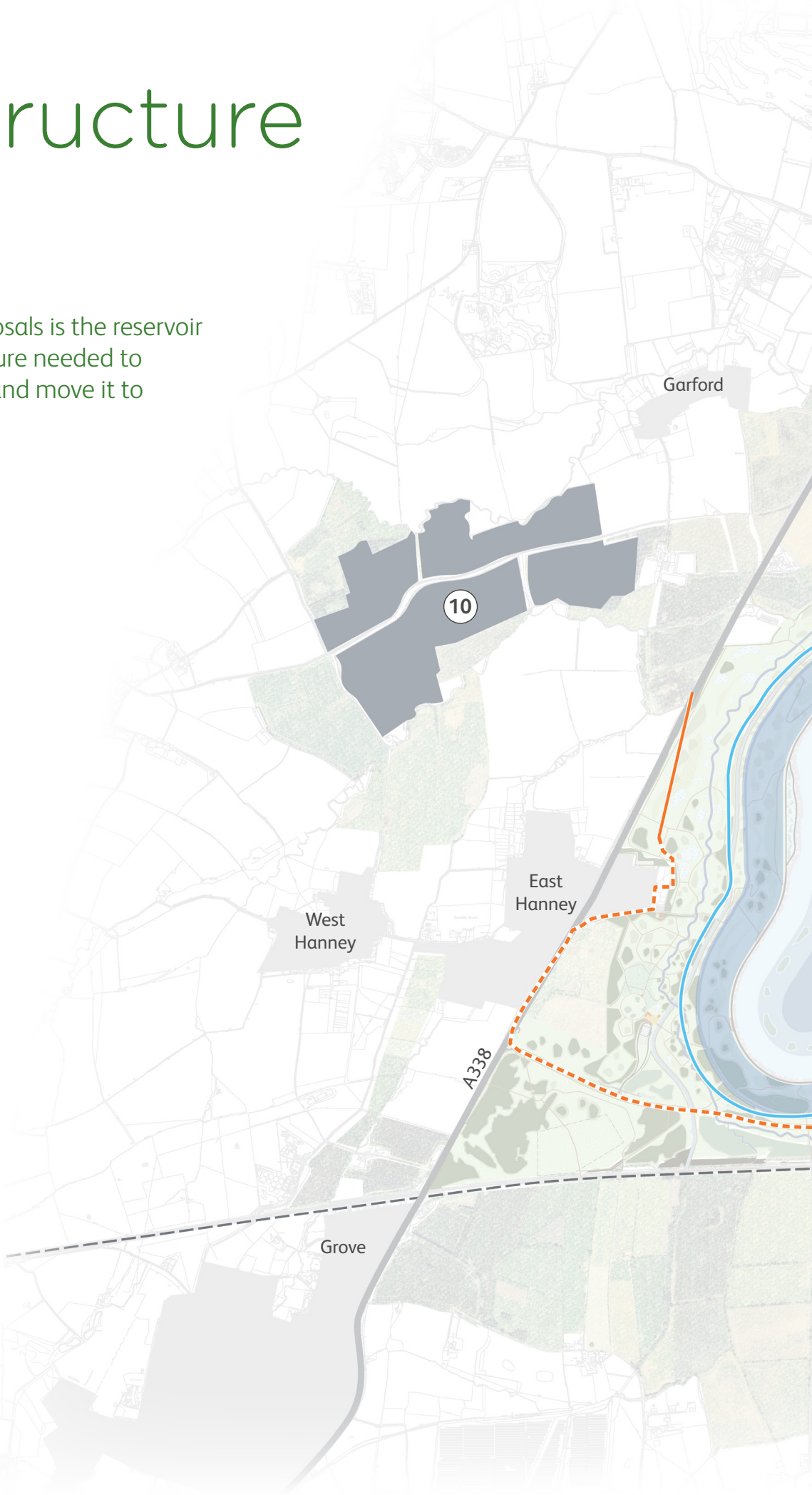


Map book

Explore the map book to see our draft Order Limits (the land needed for the project), land uses, and detailed plans for the reservoir, embankments and tunnels. You can find the map book on our website at **thames-sro.co.uk/sesro/statcon2025.**

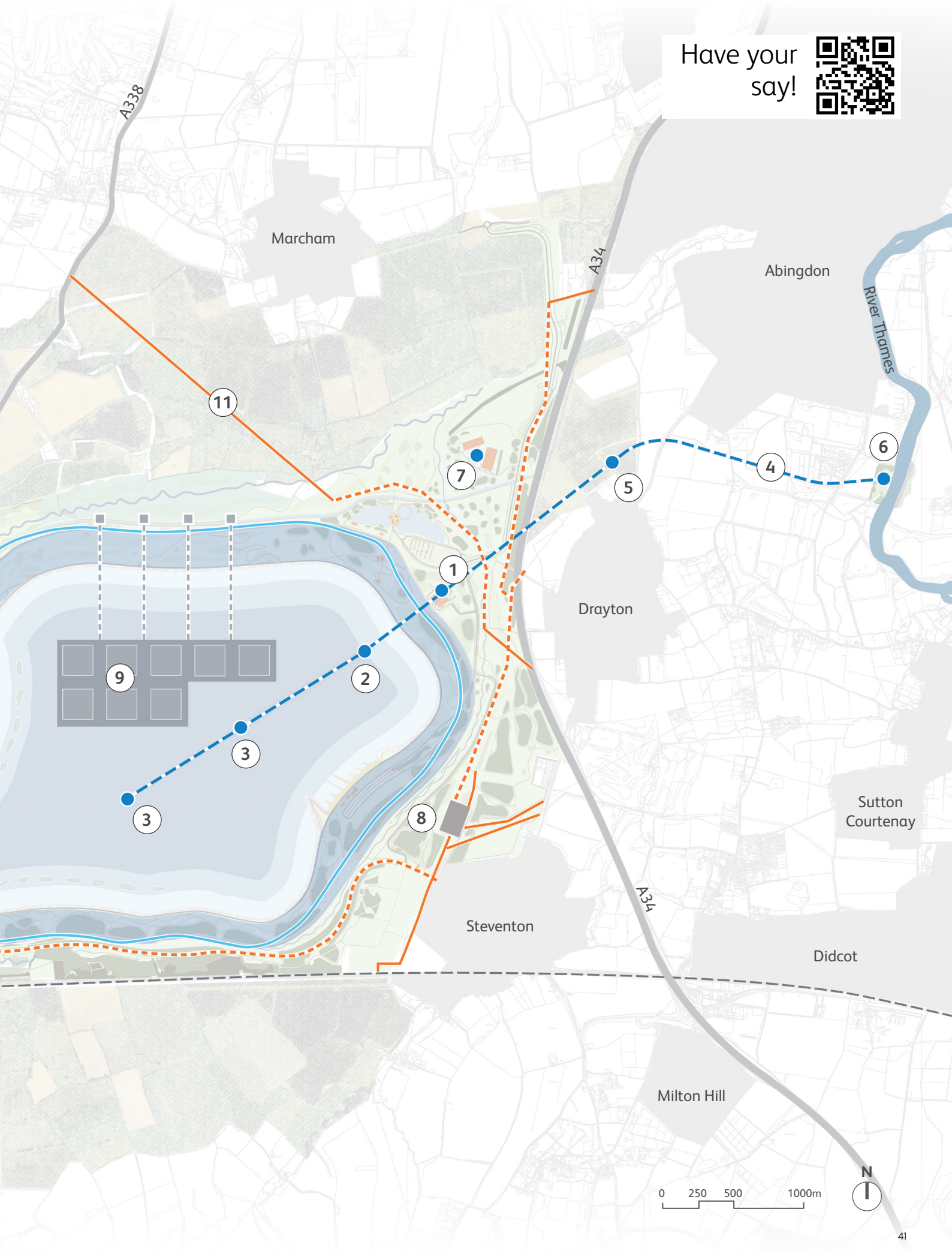
Infrastructure

At the heart of our proposals is the reservoir itself and the infrastructure needed to collect and store water, and move it to where it's needed.



1 Pumping station
2 Primary reservoir tower
3 Secondary reservoir towers
4 River tunnel
5 River tunnel intermediate shaft
6 Intake/outfall
7 Water treatment works
8 Existing substation
9 Floating solar
10 Replacement solar farm
11 Impacted existing utilities

- Operational infrastructure
- Solar cabling (Buried)
- Existing utilities
- Proposed utilities diversions
- Toe drain/maintenance track


Have your say!
A338
Marcham
A34
Abingdon
River Thames
11
7
6
4
5
1
Drayton
9
2
3
3
8
Sutton Courtenay
A34
Steventon
Didcot
Milton Hill
0 250 500 1000m
N

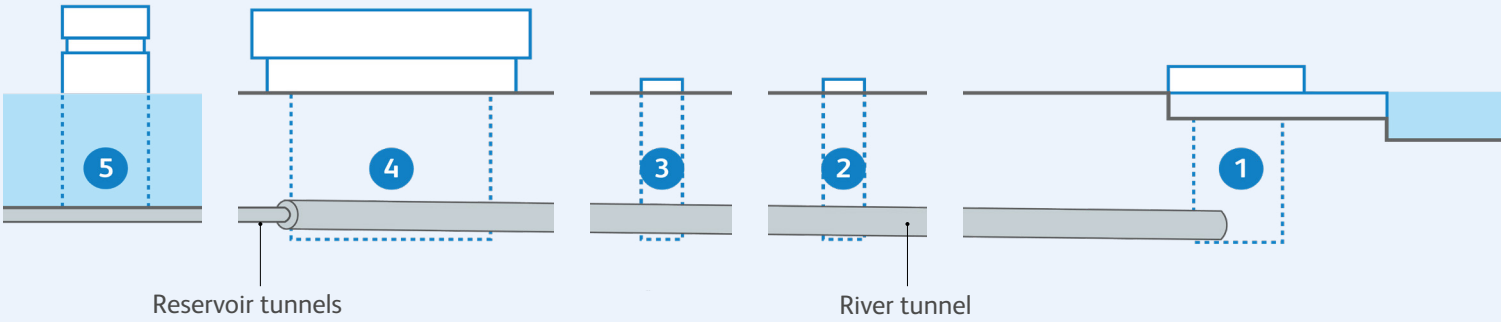
Overview of reservoir operational infrastructure

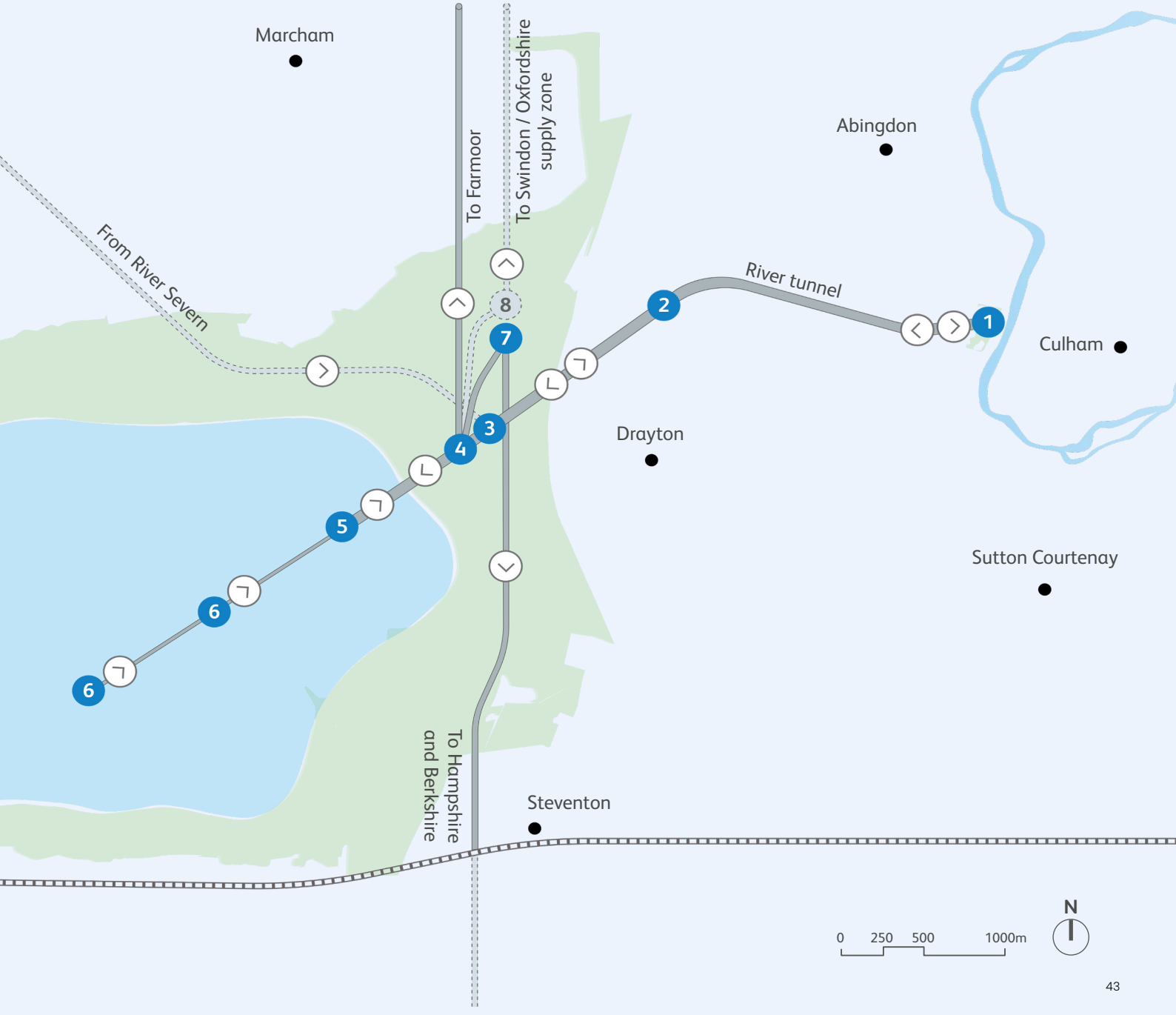
A system of tunnels, reservoir towers, shafts, a pumping station, water treatment works and an outfall and intake point, arranged along an alignment between the reservoir and the River Thames, would be used for transferring water to and from the reservoir.

To future-proof the site, we've included provision for future connections (shown in light grey on the diagram), as well as our core proposals (darker grey).

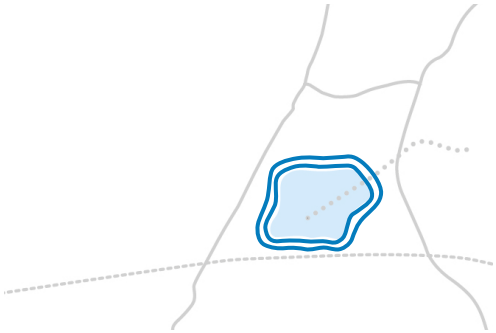
Water flow direction

1. Intake/outfall structure and shaft
2. River tunnel intermediate shaft
3. River tunnel Severn to Thames Transfer shaft (for future connection)
4. Pumping station
5. Primary reservoir tower
6. Secondary reservoir towers
7. Thames to Southern Transfer (T2ST) water treatment works
8. Safeguarded area for Swindon and Oxfordshire (SWOX) (future provision)


5
4
3
2
1
Reservoir tunnels
River tunnel


Marcham
To Farmoor
To Swindon / Oxfordshire supply zone
Abingdon
From River Severn
River tunnel
8
7
2
1
Culham
3
4
Drayton
5
6
6
Sutton Courtenay
To Hampshire and Berkshire
Steventon
0 250 500 1000m
N

Embankments



Location plan

The reservoir would be enclosed by embankments built from layers of clay that exists in abundance in the ground where the reservoir would be built.

Clay would be placed horizontally and compacted to create strong, stable foundations. The outer slopes of the embankments, which would be gently sloping and gradual, would be landscaped with grasslands and wooded areas. Walking and cycling paths would allow people to enjoy views across the water and the wider landscape.

The inner face of the embankments would typically be protected by a loose formation of stones and rocks (known as rip rap) to act as a breakwater. In specific locations, such as the proposed water sports centre, concrete slabs could be used instead to enable safe boat launching.

Because the land around the site is uneven, the height of the embankment above ground would vary, between about 15 and 27 metres.

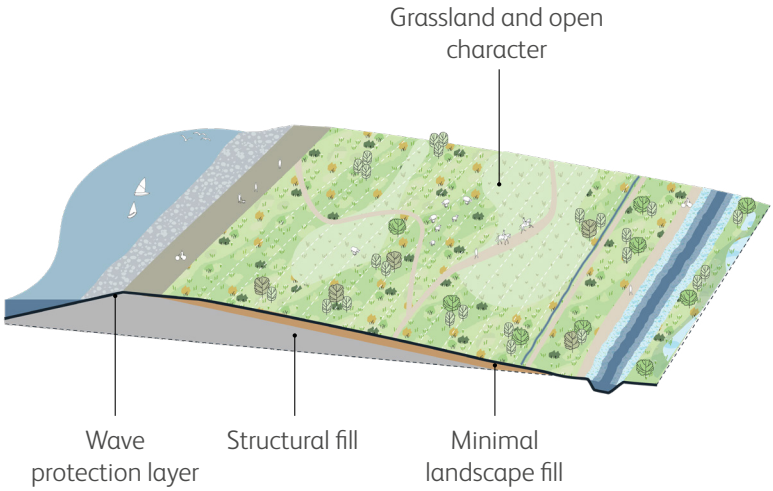
On average, the crest of the embankment would be about 17 metres wide, widening at certain points to accommodate recreational facilities, as well as environmental features like tree planting or lagoons.

Clay compaction trial

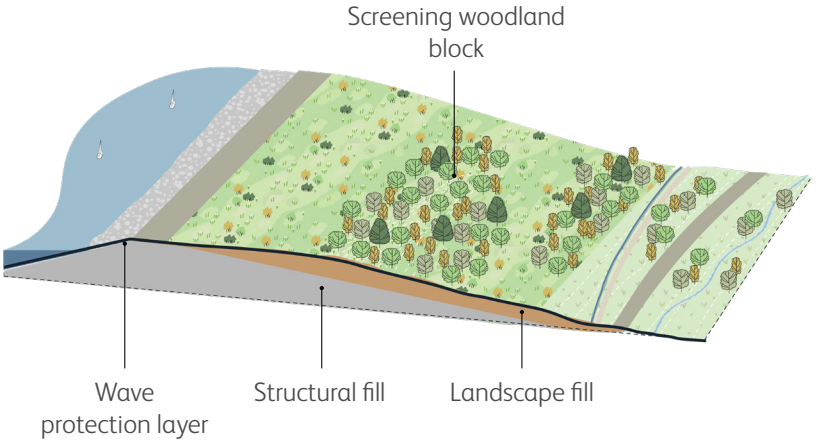
Earlier this year we carried out a clay compaction trial to assess the properties of the local Kimmeridge clay, providing important information to guide the reservoir's embankment design, construction methods, and sequencing.

A borrow pit was created to extract clay. We also built three test embankments, each around 50 metres long and 20 metres wide, and up to three metres high, allowing engineers and geologists to examine how the clay's strength, density, and water content changed under different compaction conditions. Testing took place both on-site and in laboratories using specialist equipment.

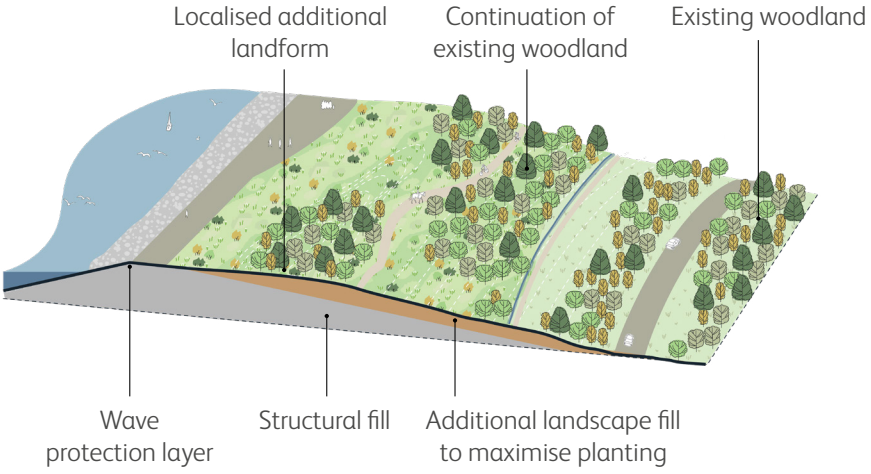
The northern embankment could reflect the farmland character to the north, with gentle slopes and scattered planting to preserve wide views across the Vale.



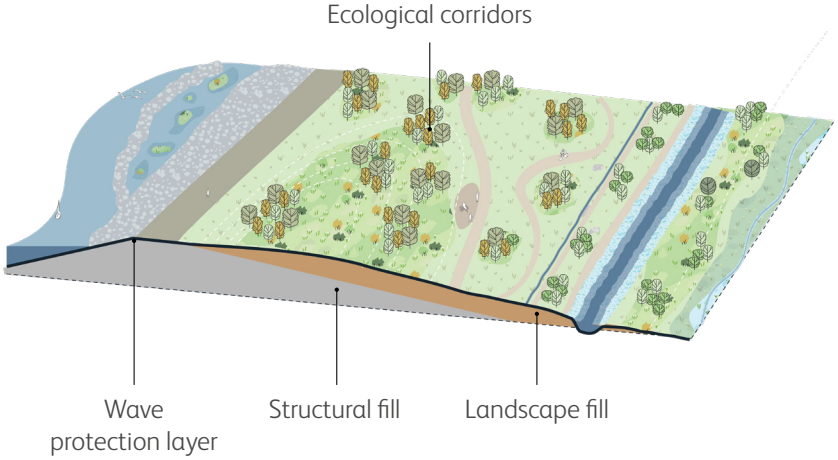
The eastern embankment could support amenities and recreational activities such as a café and water sports centre. Carefully shaped landforms and clusters of woodland provide screening from the A34 and new operational infrastructure such as the pumping station.



The southern embankment is densely wooded, to provide natural screening from the Steventon – East Hanney Road, with rich habitats and views from the embankment of the surrounding environment.



The western embankment is an important wildlife corridor connected to seasonal wetland and areas of meadow, with species-rich grasses and wildflowers.



Reservoir safety

The proposed new reservoir must meet strict safety laws set out in the Reservoirs Act 1975. This legislation ensures that large reservoirs in England are designed, built and operated safely. It requires expert engineers - approved by the UK Government - to oversee every stage, with the Environment Agency enforcing the rules. Additional guidance covers issues such as how to manage major storms, earthquakes and emergency water release.

A specialist engineer has already been appointed to supervise the new reservoir's design and construction. Only a small number of highly experienced engineers are allowed to take on this role. A Reservoir Advisory Panel has been set up, which includes four specialist engineers, to regularly review our design proposals and construction plans in line with international best practice.

Our current proposed designs include several built-in safety measures. There would be wide embankment tops, features to prevent uncontrolled vehicle access, protection against wave damage, and equipment that could lower the water level if needed. There would also be automated monitoring systems to detect any issues, backed up by regular on-site checks.

We already run 58 reservoirs safely, following set processes for inspection, maintenance and day-to-day monitoring. Emergency plans are legally required for every reservoir and include modelling what might happen in the extremely unlikely event of a dam failure. This helps shape response plans before the reservoir is first filled.

Reservoir security

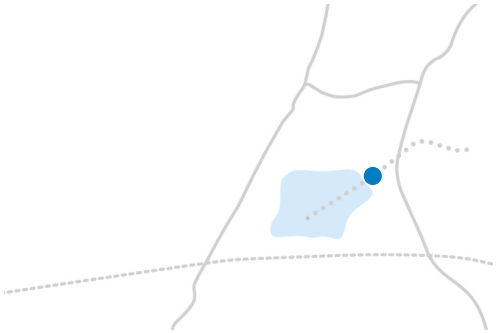
To keep the reservoir site safe and to protect the critical infrastructure, various security measures are included in our proposals. Vehicle access to certain parts of the reservoir site would be limited. Access to boat slipways would be carefully managed so they could be used when needed but remain secure at other times.

Around the operational areas of the reservoir — such as the pumping station and water treatment works — additional protective features would be in place. These could include fencing, secure doors and hatches, and monitoring systems in critical locations.

Whist the vast majority of the site would remain open and accessible to the public through a network of paths, the measures described above would help keep the reservoir secure.

Farmoor Reservoir

Pumping station



Location plan

A new pumping station, located to the east of the reservoir, would play a crucial role in managing water transfer between the reservoir and the River Thames. It would connect to the reservoir and to the river via underground tunnels, enabling water to be pumped to and from the reservoir via underground tunnels.

It would also pump water to a new water treatment works nearby, and possibly to future connections to Farmoor Reservoir and Thames Water's Swindon and Oxfordshire supply area.

Above ground, the development would include a building of up to 120 metres in length, 75 metres in width, and 23 metres in height – see indicative images opposite.

The wider pumping station compound would extend across an area of around 52,000 square metres, including parking spaces for support staff, and space for backup power equipment, to ensure a reliable backup supply in the event of a grid failure.

There would also be a new foul water pumping station at the compound, to manage foul water flows from around the reservoir and the new water treatment works (see description later in this section). A new pipeline would connect this foul water pumping station to either the existing sewage treatment works at Abingdon or Drayton. The selected treatment works would be upgraded to accommodate the additional wastewater.

1 Pumping station
2 Electrical building
3 Renewables substation
4 Landscape bund
5 Foul water pumping station

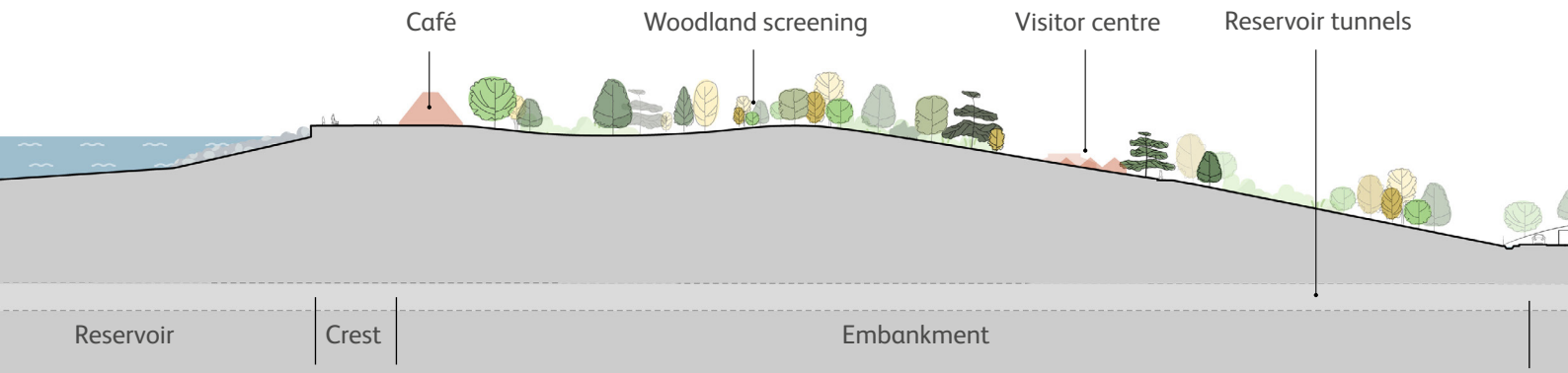
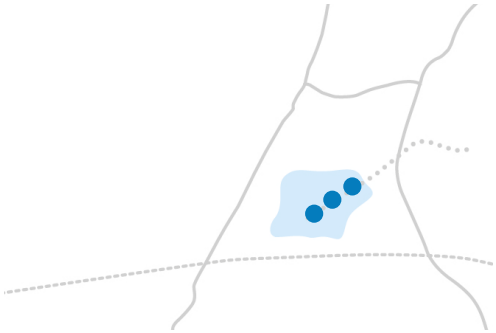


Illustration of the pumping station compound and landscape bund and screening

Indicative view towards the pumping station from the approach to the recreational lakes

Reservoir towers, tunnels and shafts



Location plan

Water towers in the reservoir would control the flow of water into and out of the reservoir.

The primary tower, located closest to the new pumping station, would be used to transfer water into the reservoir. Smaller secondary towers would be positioned in other parts of the reservoir - used to draw water out of the reservoir.

To protect wildlife, the secondary towers would be fitted with screens to prevent fish from entering.

Tunnels and shafts

Two tunnels containing pipework would be used to transfer water in and out of the reservoir. Another tunnel, known as the river tunnel, would connect the pumping station to an intake and outfall point on the River Thames near Culham. This tunnel would enable water to flow between the reservoir and the river in both directions and could also be used to lower the reservoir's water level in an emergency.

The river tunnel would include three vertical shafts. One would be located at the intake and outfall structure on the river, another would provide operational access, and a third would be reserved for a potential future connection to other water transfer projects.

1. Maintenance shaft
2. Pumping station
3. Primary reservoir tower
4. Secondary reservoir towers
5. Reservoir tunnel

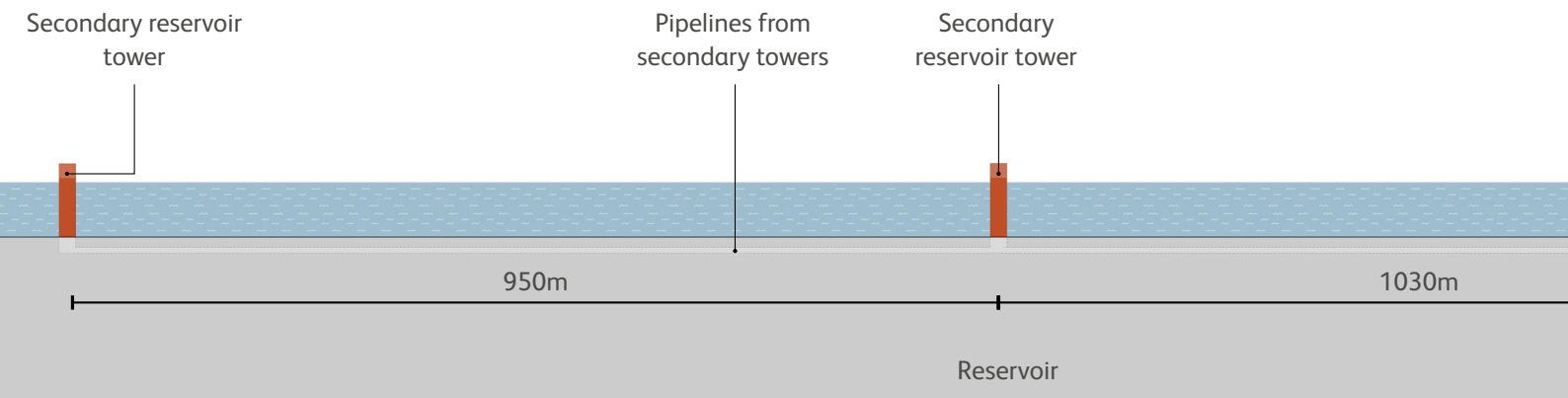
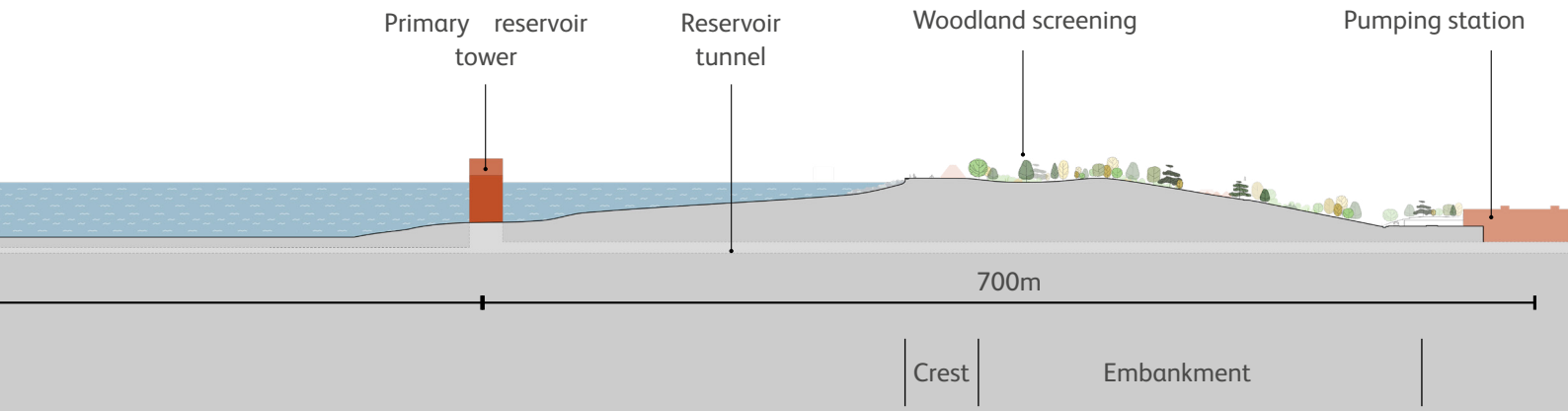
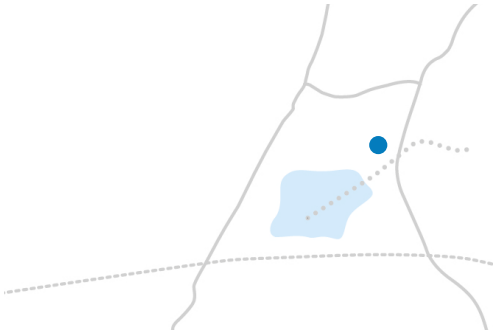


Illustration of reservoir towers and tunnels



Water treatment works



Location plan

A water treatment works for the Thames to Southern Water transfer (WTW) project would be built to treat up to 120 million litres of water a day from the reservoir, making it suitable for drinking water supply via a new pipeline to customers in Berkshire and Hampshire.

The water treatment works is being included as part of the project due to the location of the WTW close to the reservoir and the infrastructure necessary to supply the water from the reservoir to the WTW. By including the WTW in the DCO application for the new reservoir, we can help ensure that they are planned in an integrated and complementary way.

The treatment works itself would consist of a group of buildings up to 16 metres high, a water control tower building, external tanks, smaller kiosks, pipework both above and below ground, car parking and security fencing. A new access road would link it to the main reservoir access road. The layout would be designed to fit with the natural slope of the land, which falls by around 8 to 10 metres across the site.

Water from the reservoir would reach the treatment works via the pumping station and an underground pipeline.

Once treated, the drinking water would be pumped to customers in Berkshire and Hampshire through a transfer pipeline. The first section of the pipeline (between the water treatment works and the railway) would be delivered as part of the new reservoir project to minimise construction complexity. The remaining pipeline to Berkshire and Hampshire is being delivered by Southern Water through a separate DCO application.

Wastewater from the water treatment works would be transferred to either the existing Abingdon or Drayton sewage treatment works.

Find out more

You can find out more by visiting Southern Water's website, at **southernwater.co.uk/about-us/our-plans/water-for-life-hampshire/water-transfers/thames-to-southern-transfer-project/**

1 Water treatment works
2 Water tower

Illustration of water treatment works

Illustrative view of proposed water treatment works

River Thames intake/outfall

Location plan

An intake and outfall structure would be built on the west bank of the River Thames near Culham. This would provide the vital link between the river and the new reservoir, allowing water to be drawn in to fill the reservoir when river levels are high and be safely returned to the river when additional water is needed downstream.

To achieve this, the intake would channel river water through a screening system and pipework into a shaft, which would connect to a tunnel for transferring the water to the reservoir.

A floating barrier system would be placed in the River Thames to stop floating material from being drawn-in, and further safety measures such as guard piles, buoys, and signage would help prevent unauthorised access. There would also be a fine mesh on the intake, to prevent fish and eels from being drawn into it.

The outfall would return water to the river through a broad weir and spillway measuring about 40 metres wide and 65 metres long. To protect the riverbed and banks near both structures, a layer of granular fill (such as gravel or crushed stone) would be added along around 160 metres of the river channel, and some sections of the eastern bank may also need reinforcing with rock protection.

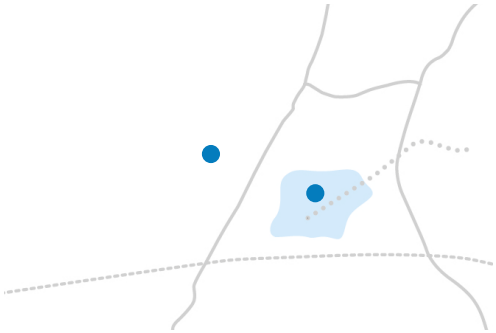
The existing outfall on the riverbank in this location, associated with Abingdon Treatment Works, would be relocated to be downstream of the new intake structure.

As part of the design, steps would be taken to manage flood risk. On the eastern bank, a lowered area of land (known as a berm) would be created to provide extra flood capacity. This area would extend for about 500 metres and be up to 90 metres wide, with ground levels lowered by around 2 metres. The area would then be restored with soil and planting so that it blends in with the natural landscape of the floodplain. The existing riverside path would be reinstated at the lower level across the berm, and an additional path would be provided around its edge so that access is maintained even when the berm is in use during high river flows.

1 Intake
2 Outfall
3 Protective pile barrier
4 Crane pad
5 Thames Path National Trail
6 Berm

Illustration showing our proposals for the intake/outfall with the surrounding environment

Renewable energy



Location plan

The project would include a range of renewable energy features to make best use of the site and help meet our sustainability objectives. We're considering:

- Floating solar panels could be installed on the reservoir itself, covering around 6% of the water surface and generating up to 40MW of power at peak.
- Ground-mounted solar panels could be built to the west of the reservoir site to replace the three solar farms that would be lost were the reservoir to be built.
- Solar panels on buildings and car parks would also contribute, supported by a battery storage system.
- Hydropower turbines within the pumping station would recover energy when water is released back into the River Thames.

Reprovision of existing solar farms

There are currently three solar farms within the boundary of the location of the proposed new reservoir. Together, they generate around 69.5 MW of energy.

We are proposing to set aside 100 hectares (around 140 full-size UK football pitches) of land to the west of the reservoir for either a new single solar farm or several smaller ones to provide an equivalent amount of renewable energy, with the electricity generated being exported back to the grid.

There's still lots of work to do to develop our proposals, and we're already talking to potentially affected landowners, Oxfordshire County Council, the Vale of White Horse District Council and other stakeholders.

1 Replacement solar farm
2 Floating solar panels

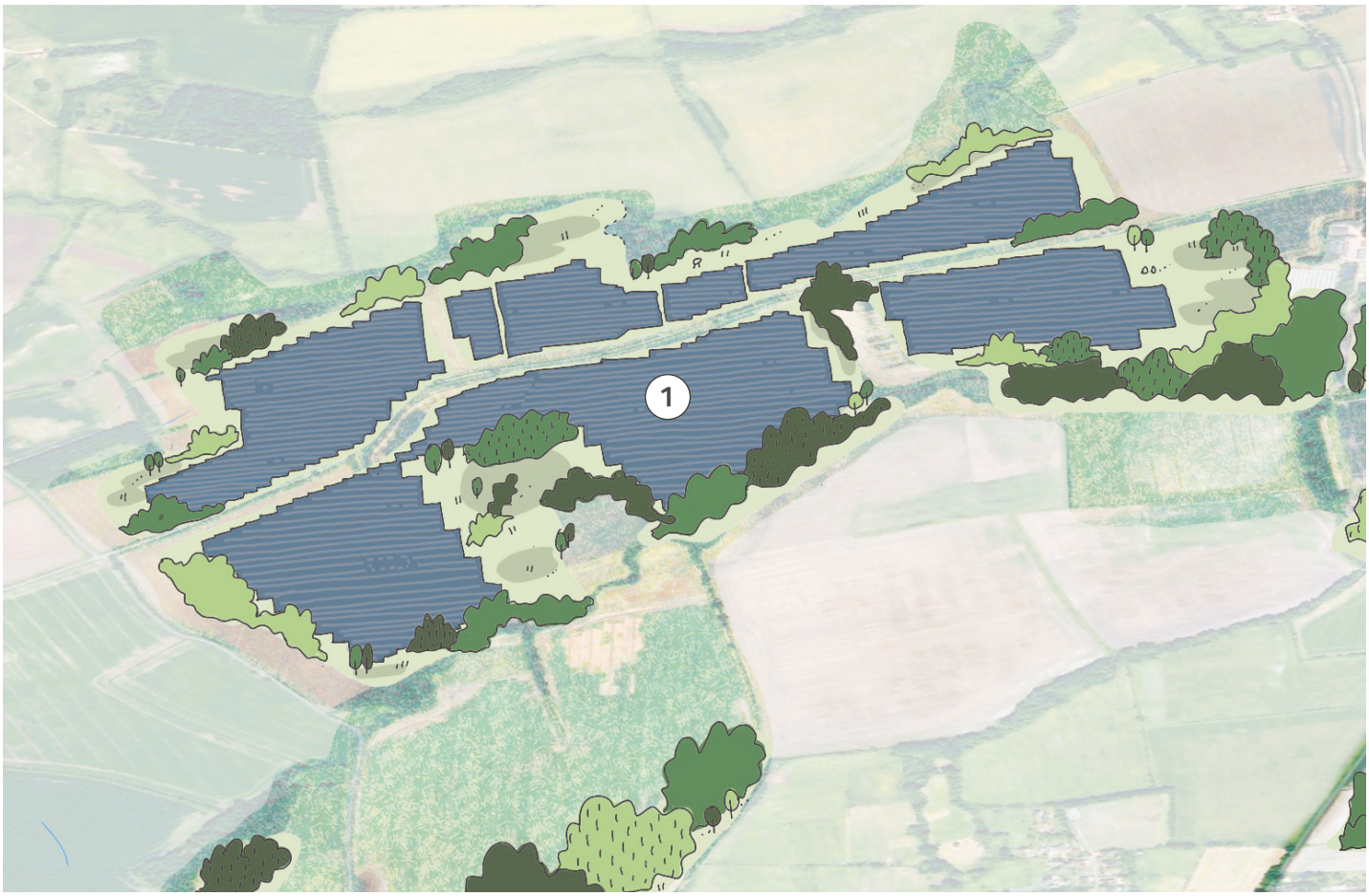


Illustration showing potential replacement solar farm

Illustration showing floating solar panels on reservoir

Utility diversions and connections

Location plan

A significant amount of work would be needed to reroute and connect utilities such as power, water, telecoms, and foul drainage.

Key proposed utilities works include:

- An existing 132kV overhead electricity cable that currently runs through the project area would need to be rerouted. We're discussing this with Scottish and Southern Energy and, subject to their agreement , we're proposing that this line would be diverted for around 1.95 kilometres to the north east of its current position, supported by nine pylons at the same height as those already in place. Access would be required to a pylon east of the A34, but no new pylons would be built east of the road.
- A section of gas main near Drayton Road would also need to be diverted for approximately 150 metres.
- Another section of gas main, to the south of the proposed reservoir embankment, would conflict with the realignment of the Steventon to East Hanney Road. To avoid this, the pipeline would be diverted over a length of about 800 metres.

1 Existing overhead cables and pylons

2 Proposed diversion route

Illustration showing proposed overhead cables and pylons diversion

Environment

Habitats and priority areas for biodiversity

Our designs for the new reservoir include proposals to deliver a minimum of 10% biodiversity net gain. This means that when construction is complete, the overall quality and quantity of habitats for wildlife would be better than before.

By creating new habitats and connecting them to existing habitats, the project aims not just to replace what is lost but to provide a long-term enhancement to the local landscape. A network of 'priority areas for biodiversity', across the core reservoir site and wider surroundings, would provide the space needed to develop mitigations for disturbance to existing habitats and species, and provide overall enhancements, helping to meet the requirement for the project to achieve at least 10% biodiversity net gain. Some of the new habitats would be created in the early stages of the planned construction works for the new reservoir, whilst others would be introduced towards the end of the construction period.

1 Project priority areas for biodiversity
2 Solar provision
3 Floating solar
4 Diverse range of grassland and wetland habitats
5 An array of retained and proposed mixed woodland habitats

- Existing retained woodland
- Woodland and copse
- Neutral grassland / lowland meadow
- Grazing marshland and ecological ditches
- Seasonal wetland
- Scrub
- Wet woodland
- Native rich hedgerows

Our proposals for the new reservoir aim to create and improve habitats that help protected and priority species thrive


Have your say!
A338
Marcham
A34
Abingdon
River Thames
1
4
3
Drayton
Sutton Courtenay
A34
Steventon
Didcot
5
1
Milton Hill
0 250 500 1000m
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Seasonal wetlands, grasslands and woodlands

Different types of habitats would be developed across the site to both support wildlife and help the reservoir connect with the surrounding landscape.

Planting of woodland, hedgerows, and other habitats is being carefully planned to enhance the environment and reduce visual impacts of new infrastructure.

Woodlands

Planting on the reservoir embankments would consist of scattered shrubs and small trees, such as hawthorn, to help soften the landscape.

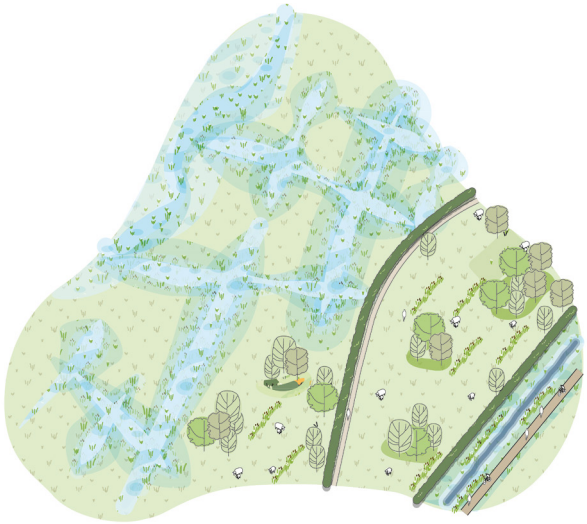
Woodland areas would be established across the site, forming a network of connected copses and larger blocks of deciduous woodland linking with the River Thames corridor and other areas rich in ecology. These would help screen infrastructure, provide space for people to explore, and contribute to broader environmental goals such as carbon capture, cleaner air, and cooler microclimates.

Wetlands

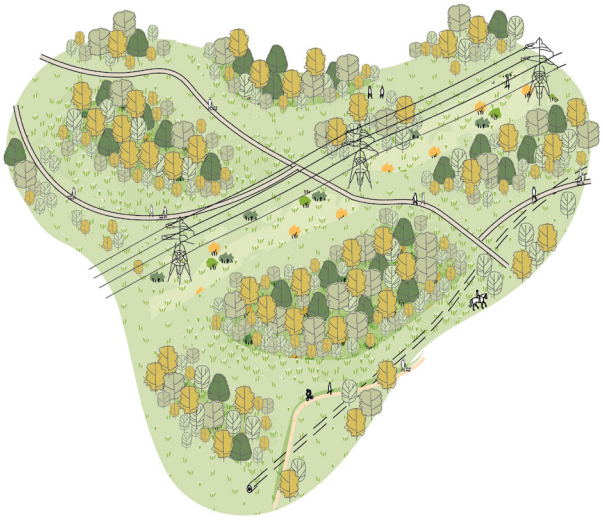
In lower-lying areas to the west of the reservoir, new floodplain grazing marsh would be created, with seasonal wetlands designed to flood and drain throughout the year to support a wide range of birds and invertebrates.

Ditches would also play an important role: some are being designed to dry out seasonally to help certain plants and insects, while others would remain wet all year round. These would be lined with clay to ensure constant water levels and provide stable habitats for water voles, otters, fish, and aquatic invertebrates.

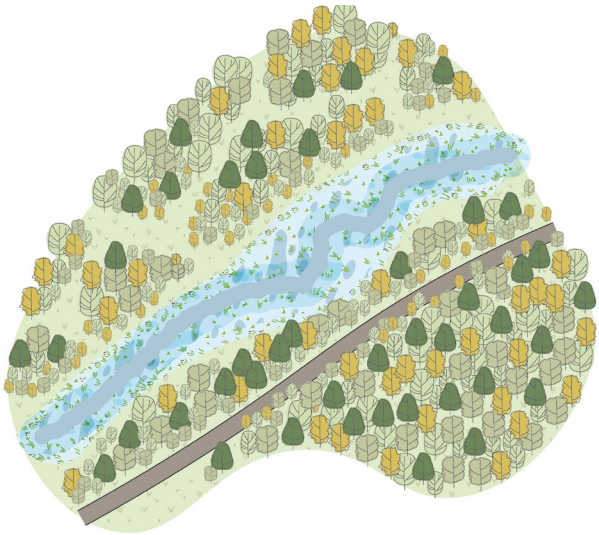
Certain areas of the reservoir would not be accessible to the public, in order to protect sensitive habitats and provide quiet sanctuary for wildlife.



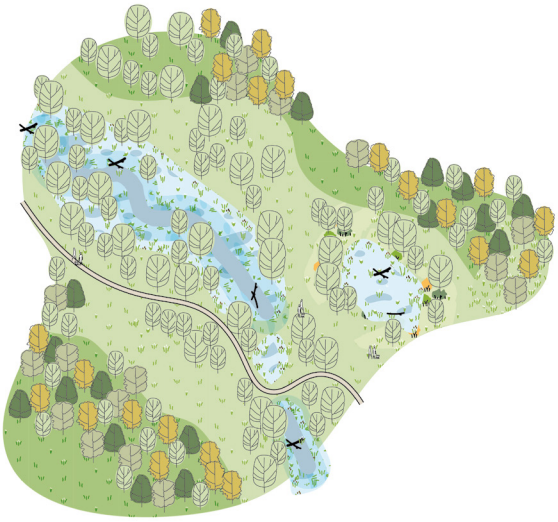
Flood grazing marsh



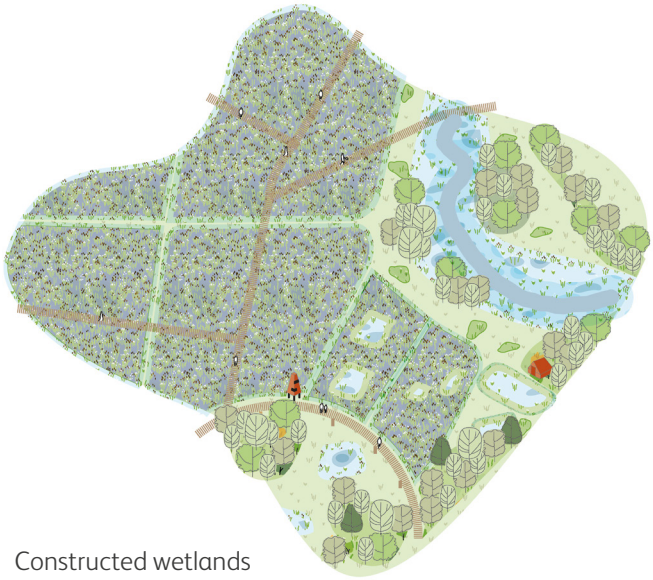
Woodland blocks



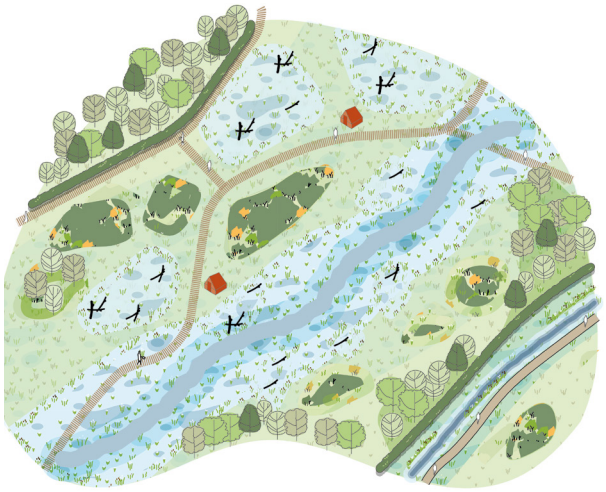
Broadleaf woodland



Wet woodland



Constructed wetlands

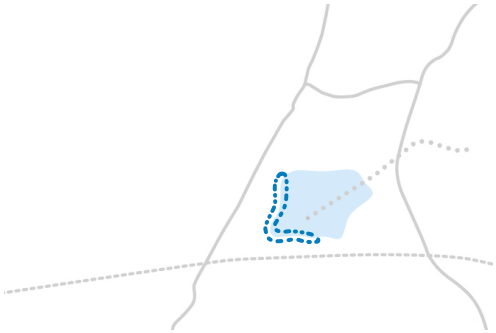


Seasonal wetlands

Habitat creation illustrations not to scale

Illustrative view of path through woodlands with the utility power lines in the distance

Illustrative view of seasonal wetlands from integrated wetland paths



Location plan

Lagoons and floating Islands

We are considering creating wetland lagoons and floating islands on the reservoir. These would be planted with a range of native aquatic species, creating nesting and feeding habitats for birds and supporting a variety of other wildlife.

Wider areas for biodiversity - beyond the core reservoir site

As well as the habitats created on the main reservoir site, we're proposing to enhance habitats further afield, beyond the core reservoir site. These habitats would help tie the reservoir's natural environment into the broader landscape, ensuring connectivity between wildlife corridors and making the overall ecological network more resilient. They are important to manage species that use the core site area during construction, and will help contribute to biodiversity net gain.

1 Project priority areas for biodiversity

2 Lagoons

3 Floating islands

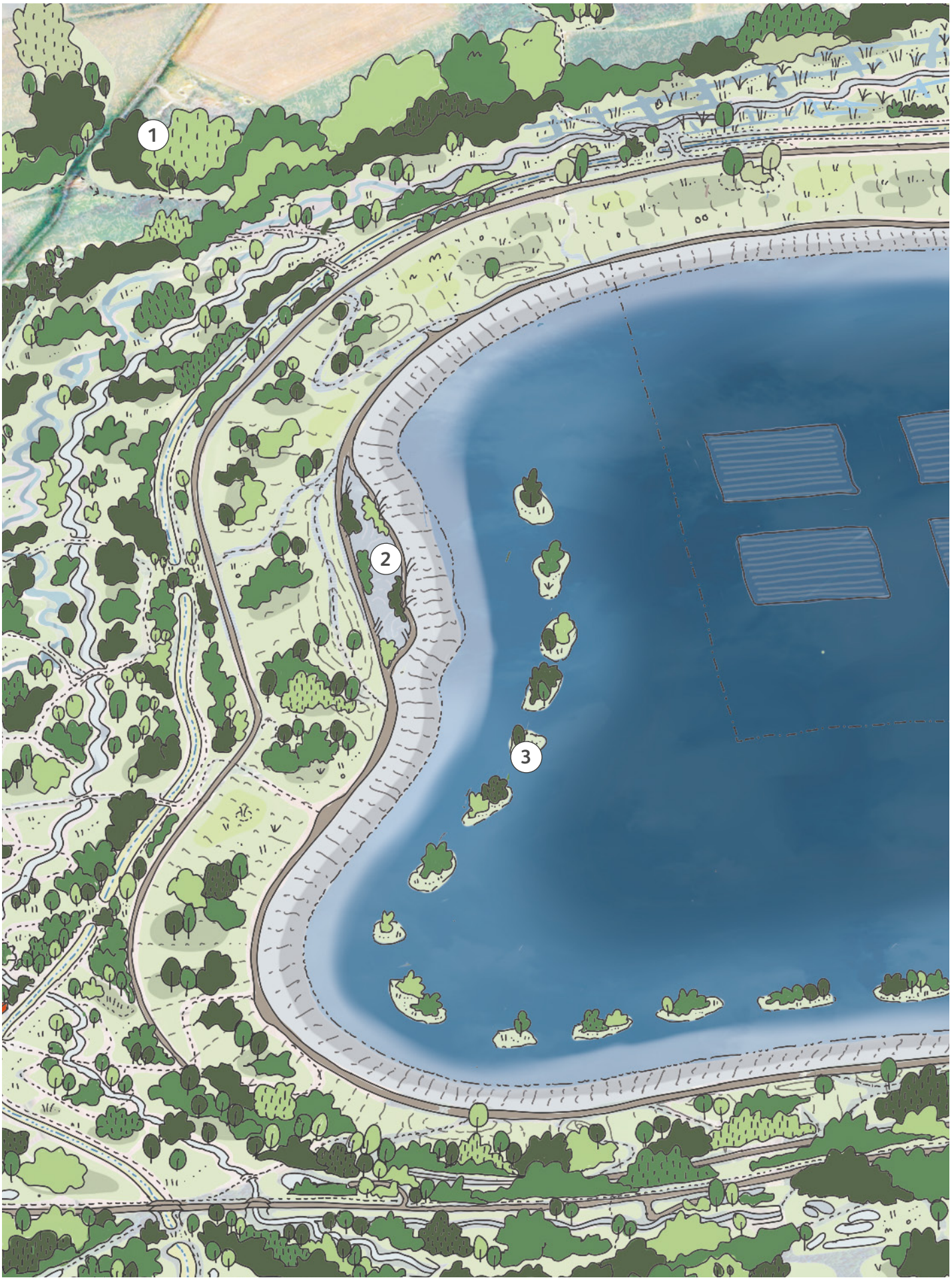


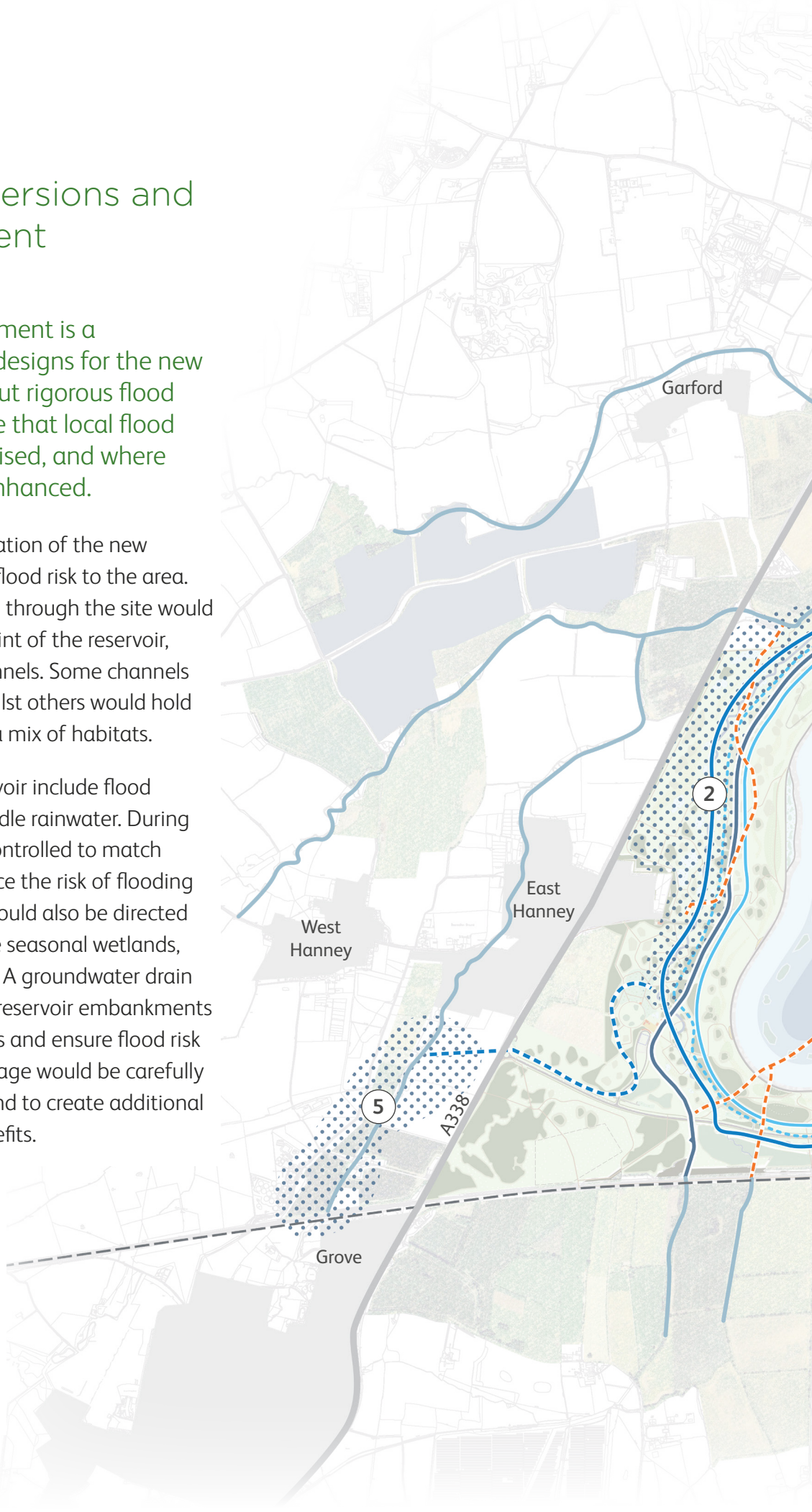
Illustration showing potential lagoons and floating islands

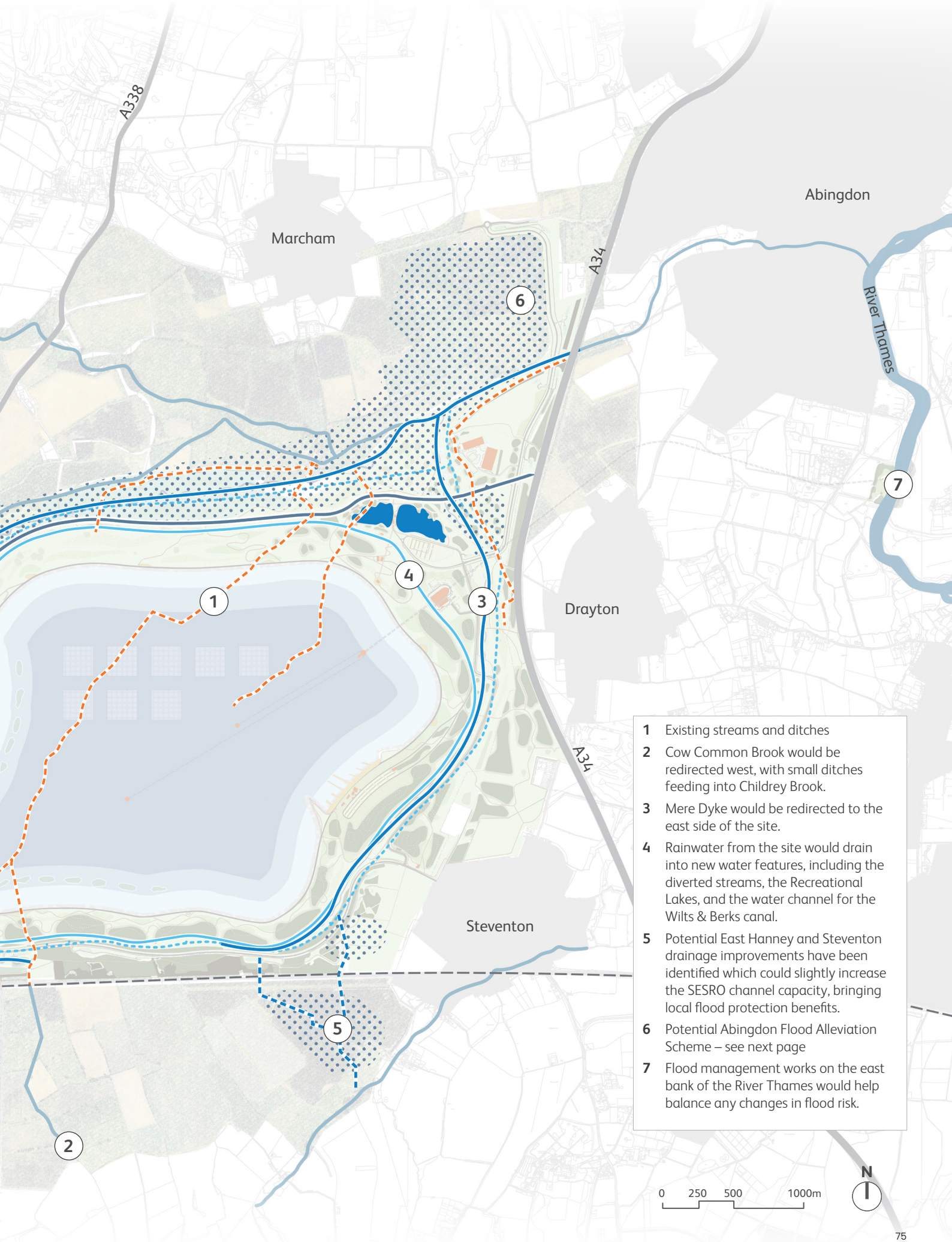
Watercourse diversions and flood management

Water and flood management is a fundamental part of the designs for the new reservoir. We're carrying out rigorous flood risk assessments to ensure that local flood resilience is not compromised, and where reasonably practicable, enhanced.

During construction and operation of the new reservoir, we will not increase flood risk to the area. Existing watercourses that run through the site would be diverted around the footprint of the reservoir, creating new naturalised channels. Some channels would remain wet all year, whilst others would hold water seasonally, supporting a mix of habitats.

The designs for the new reservoir include flood management features to handle rainwater. During heavy rain, runoff would be controlled to match natural levels, helping to reduce the risk of flooding downstream. Surface water would also be directed to areas where it can enhance seasonal wetlands, and other ecological features. A groundwater drain would be created around the reservoir embankments to manage groundwater levels and ensure flood risk does not increase. Road drainage would be carefully designed to avoid pollution and to create additional biodiversity and amenity benefits.





1 Existing streams and ditches

2 Cow Common Brook would be redirected west, with small ditches feeding into Childrey Brook.

3 Mere Dyke would be redirected to the east side of the site.

4 Rainwater from the site would drain into new water features, including the diverted streams, the Recreational Lakes, and the water channel for the Wilts & Berks canal.

5 Potential East Hanney and Steventon drainage improvements have been identified which could slightly increase the SESRO channel capacity, bringing local flood protection benefits.

6 Potential Abingdon Flood Alleviation Scheme – see next page

7 Flood management works on the east bank of the River Thames would help balance any changes in flood risk.

The Abingdon Flood Alleviation Scheme

Working closely with the Environment Agency, and in support of their Abingdon Flood Alleviation Scheme, we have designed the main access road to the reservoir so that it could eventually form part of a flood embankment that could help reduce the risks of flooding in Abingdon. With the Environment Agency, we are also looking at how flood storage areas, bunds and control gates adjacent to the River Ock could be delivered alongside the proposed new reservoir.

The Wilts & Berks Canal

A section of footprint of the historic Wilts & Berks Canal lies within the area of land that would be needed for the new reservoir and would be lost during construction. To compensate, we're proposing creating a new lined water channel to allow for the future provision of a navigable canal.

The channel would be constructed on a realigned route through the site, designed to respect the canal's heritage and allow for future navigation if locks were added later.

The channel would be wide enough for two narrowboats to pass, with a clay or membrane lining to hold water. A towpath would run alongside, with crossing points where the route meets roads, paths, and cycleways. A side weir would be built at the downstream end, ensuring that during high flows, water would safely discharge into the River Ock rather than overtopping the channel. The restoration of the canal isn't up to us, but we're working with the Wilts & Berks Canal Trust to ensure that our proposals support their long term plans.

Example of a lined wet channel to allow for the future provision of a navigable canal

Movement

To support movement around the site, our proposals consider how visitors, workers and local residents would be able to enjoy the new reservoir while connecting around the site safely.

We're proposing new roads and junctions, parking facilities, improvements to the wider road network, and a strong emphasis on active travel.

1. Existing Steventon to East Hanney road removed
2. Steventon to East Hanney road diversion
3. Main site access
4. Visitor centre accessed via the main access road from Marcham Road with connection to the water sports centre access road.
5. Access to the nature education centre is from the new Steventon/East Hanney road.

- Existing active travel
- Proposed active travel
- Proposed vehicular access
- P Parking
- Main gateways


Have your say!
A338
Marcham
3
A34
Abingdon
River Thames
4
P
Drayton
1
P
P
Sutton Courtenay
A34
Steventon
2
Didcot
Milton Hill
N
0 250 500 1000m

Main site access

The main entrance for vehicles would be via a new road linking to the A415, west of the A34 Marcham Interchange. This road would join via a newly built three-arm roundabout, designed to minimise disruption during construction.

The access road would be around 3km long, leading to a main visitor car park, water sports centre, recreational lakes, pumping station and water treatment works.

Operational and emergency access

An access strategy has been developed with safety, flexibility, and inclusivity in mind. Roads would provide smooth connections to visitor centres, recreational facilities, and operational areas of the reservoir.

The main entrance would also serve as the primary emergency access route – linking directly with the A415, A34 and Oxford. Designated tracks would enable emergency vehicles to reach key areas in the site. These routes would also be available for walking, cycling and wheeling in day-to-day use.

Steventon to East Hanney road diversion

The existing road between Steventon and East Hanney will be realigned, and the new route will include a segregated cycleway and footway. The proposed new road has been carefully designed to reduce impacts. At the western end, it would connect to the A338 via a new roundabout, and at the eastern end it would merge back into the existing road near Steventon.

Parts of the existing Steventon Road would be lost for the construction of the new reservoir, but the remaining stretches would be retained for property access and walking, cycling, and horse-riding routes. A small car park would also be created at the stopping-up point, along with measures such as lighting, CCTV, and traffic regulation to discourage anti-social behaviour.

Wider road network improvements

Beyond the reservoir site, the project could include several improvements to the wider road network. These may include upgrades to junctions at Frilford and Marcham, and enhancements at the A34 Marcham Interchange, as well as works on other nearby roads to support construction traffic access.

Some improvements would be temporary, such as upgraded laybys and temporary access points. Others would deliver lasting benefits, including safer junctions, improved traffic flow, and better facilities for walking and cycling along key routes.

Car parking

Several car parks are planned across the reservoir site:

- Recreational centre (to the north-east of the new reservoir): around 400 spaces, with additional overflow and expansion areas, plus dedicated boat parking.
- Water sports centre (to the east of the new reservoir): around 200 spaces, safeguarded for future expansion.
- Nature education centre (to the south-west of the new reservoir): around 100 spaces, including overflow provision.
- Trailheads at East Hanney and Steventon: around 25 spaces each, with gated access.

Smaller parking areas would also support other facilities and provide convenient access to recreational loops (described in the next part of this chapter).

Active travel and local access

Our designs emphasise active travel - the proposed new reservoir becoming a hub within a new "hub and spoke" network of walking, cycling, wheeling and horse riding routes.

New and improved paths would connect the reservoir with local villages, canal towpaths, and the wider Public Rights of Way network. Within the reservoir site, boardwalks could provide routes through seasonal wetlands, and carefully designed bridges and culverts would ensure safe crossings of watercourses. Ramps would be built with gentle gradients to ensure access for wheelchair users, cyclists, and those with mobility needs.

In addition, the project could improve wider connections between Wantage, Abingdon, Drayton, Steventon and East Hanney. By linking into the National Cycle Network and the Science Vale Cycle Network, the site would help strengthen regional travel opportunities as well as local leisure access.

Local communities would benefit directly from improved access. New loops would provide opportunities for walking, running and cycling, with routes of different lengths to suit a wide range of users. Trailheads and gateways would make entry points clear and welcoming, while new local connections would ensure nearby towns and villages are linked more closely than before.

Balancing with Sustainable Travel

Our traffic strategy deliberately avoids reliance on car access alone. Active travel routes—walking, cycling, wheelers and horse-riding paths—are designed to encourage local visitors to arrive without using cars.

For example, a resident of East Hanney would be able to walk or cycle directly into the site along upgraded local paths, while those in Steventon or Drayton would benefit from new or improved links. Connections into the National Cycle Network and Science Vale Cycle Network mean that visitors from further afield, including Abingdon and Wantage, could realistically cycle to the site.

By planning for both peak and everyday conditions, the traffic and transport strategy ensures that the reservoir would be easy to reach but not overwhelming for surrounding communities.

Construction traffic would be managed on dedicated routes, while operational traffic would be absorbed by purpose-built infrastructure. Alongside this, a network of sustainable travel options would reduce dependence on cars and make the site accessible for all.

Visitors walking a nature trail

Recreation and amenity

Our proposals for a network of recreational and amenity facilities arranged around three main hubs: a centre for visitors and recreational lakes, a centre for water sports and a nature education centre.

1 Recreational lakes
2 Visitor centre and café
3 Water sports centre
4 Nature education centre

Hubs

Viewpoints


Have your say!
A338
Marcham
A34
Abingdon
River Thames
1
2
Drayton
3
Sutton Courtenay
A34
Steventon
Didcot
Milton Hill
0 250 500 1000m
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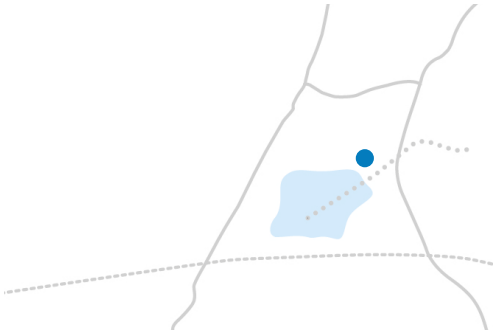
Recreational lakes

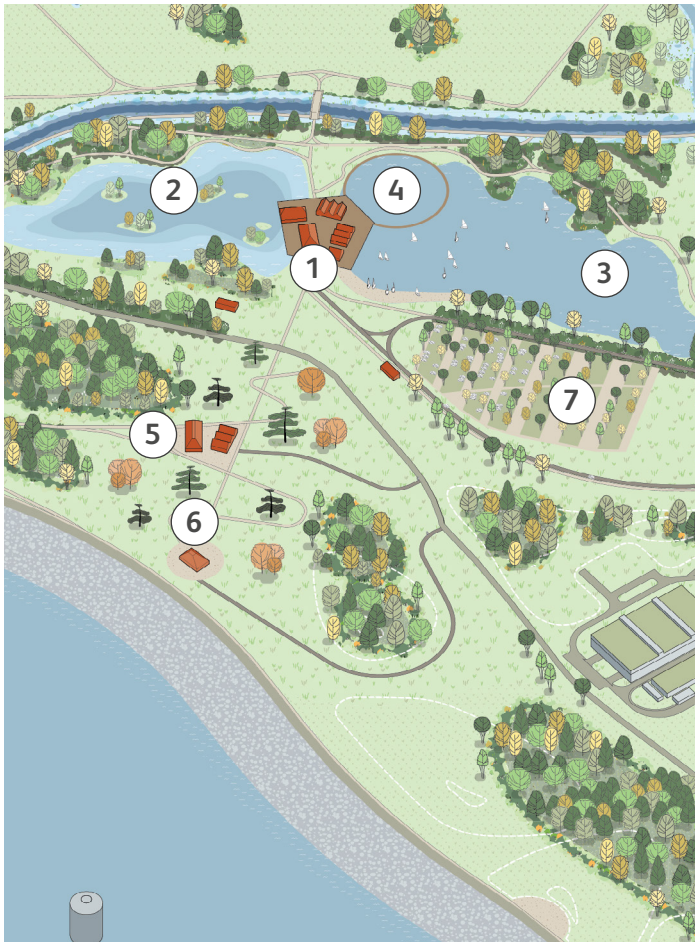


Location plan

Two recreational lakes would be located to the north east of the site. Used during the construction period for capturing excess water, they will be repurposed once construction is complete.

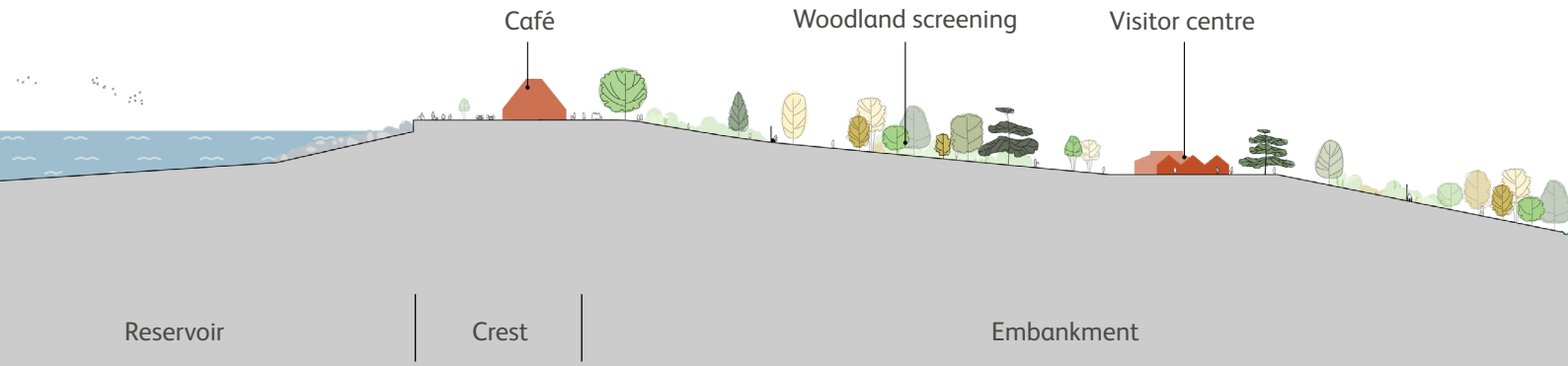
One lake (3 hectares or over 4 football pitches) would be dedicated to nature and fishing, while the second, larger lake (5.5 hectares or over 7 football pitches), would be for activities such as swimming, paddleboarding, and sailing. Both would be lined and sustained by a controlled flow to maintain water levels year-round, with accessible water entry points provided.

The proposed visitor centre would serve as a key entry point to the reservoir site, with cafés, changing facilities, angling piers, education spaces, and adventure play areas. Landscaped routes and open greens would connect these facilities, enabling safe access to water and nature. Together, the visitor centre and lakes are designed as the social and recreational heart of the reservoir.

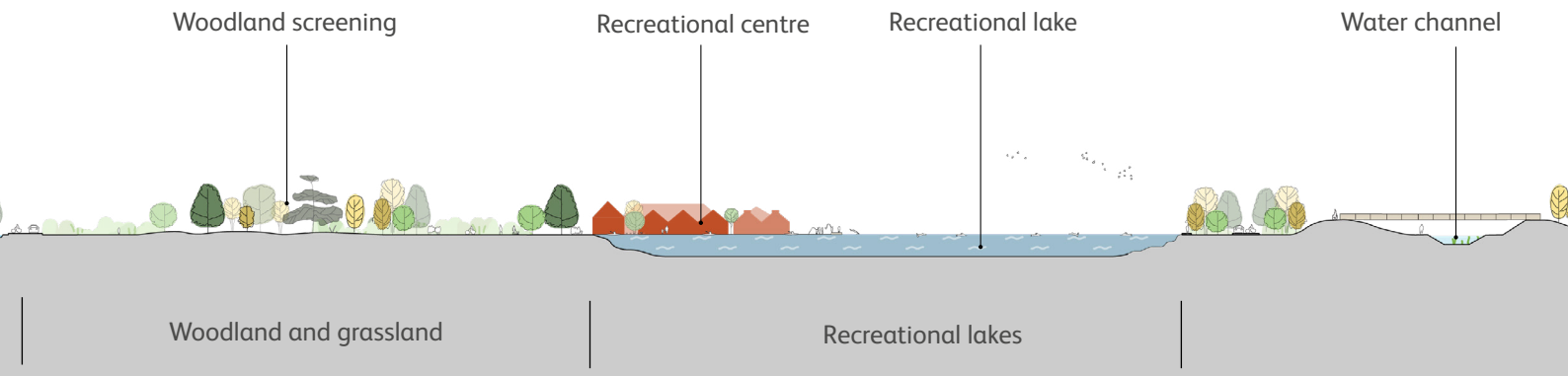


Illustrative view of new recreational lakes and visitor centre

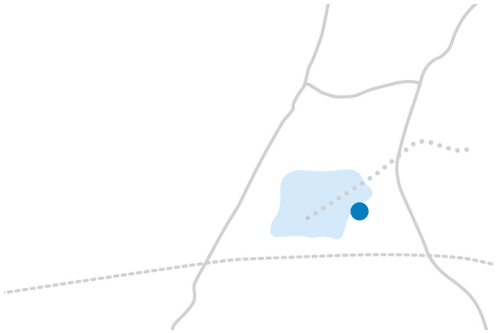
1 Recreational centre
2 Nature lake
3 Recreational lake
4 Swimming lido
5 Visitor centre
6 Café
7 Car park



Illustrative view of recreational lakes and visitor centre



Water sports centre



Location plan

The water sports centre, which would be adjacent to the eastern edge of the reservoir, would facilitate a range of non-motorised watercraft activities, such as sailing.

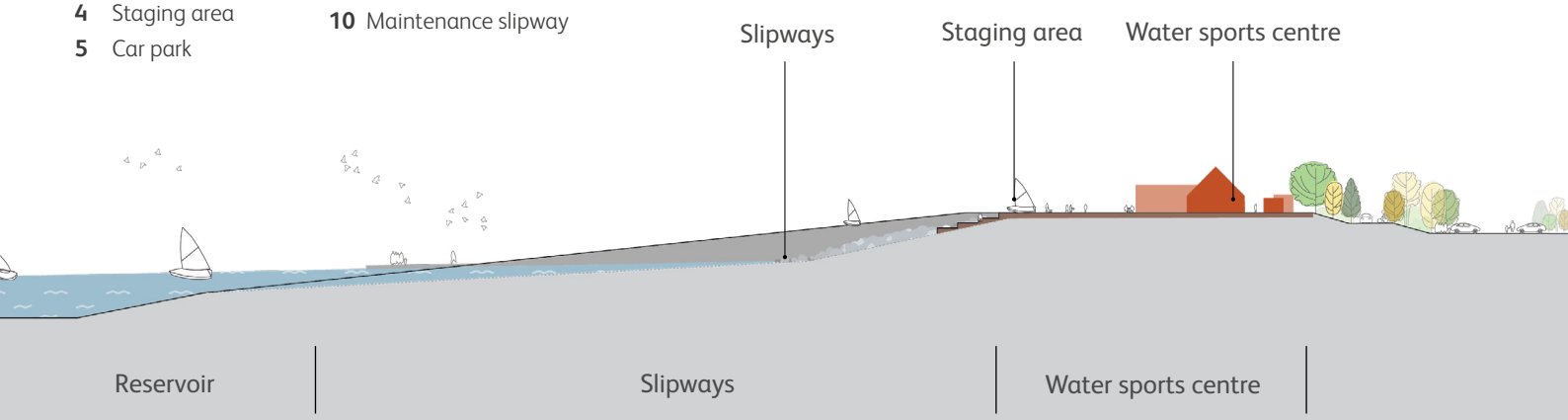
In accordance with Royal Yachting Association and Sport England best practice, the facility could include:

- Slipways, including one 15m-wide slipway for maintenance and emergency access.
- A laydown area for equipment storage and manoeuvring.
- Boat storage and maintenance facilities, including provision for operational boats.
- Visitor amenities such as a sailing club, café, public toilets, and terraced seating.

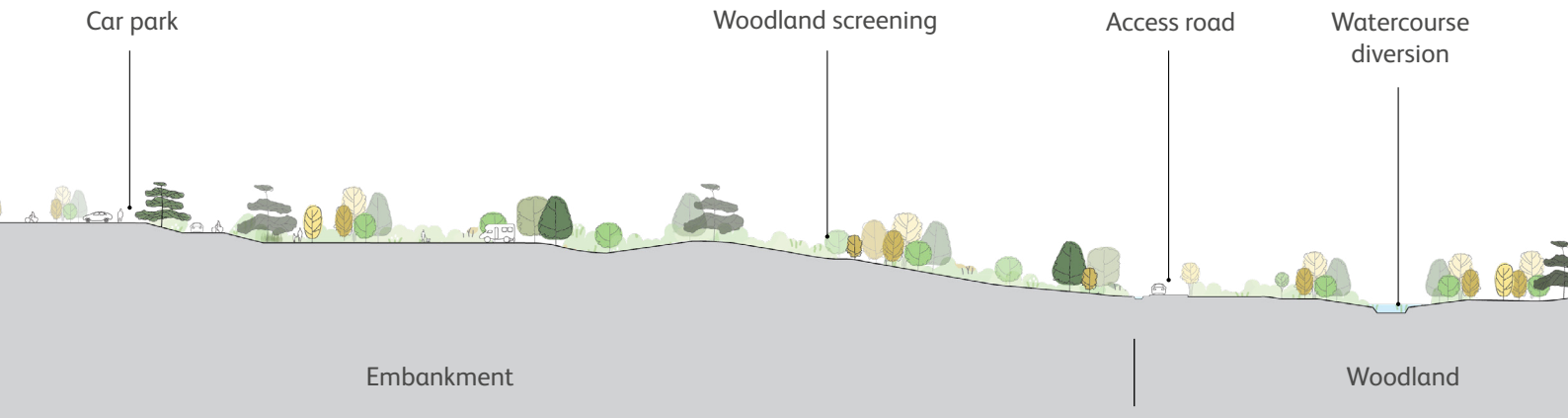
As well as a hub for recreation, the centre would provide an operational facility for reservoir maintenance and safety.

Indicative view of new water sports centre

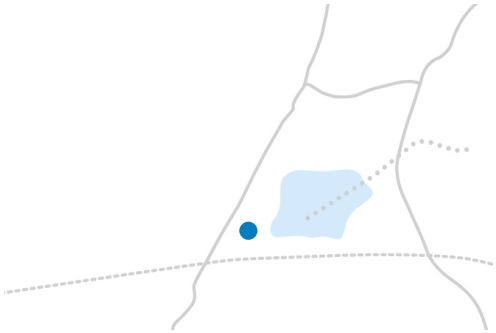
1 Water sports centre
2 Boat stores
3 Maintenance and operation facilities
4 Staging area
5 Car park
6 Boat parking
7 Woodland
8 Peninsula
9 Slipways
10 Maintenance slipway



Illustrative view of the water sports centre



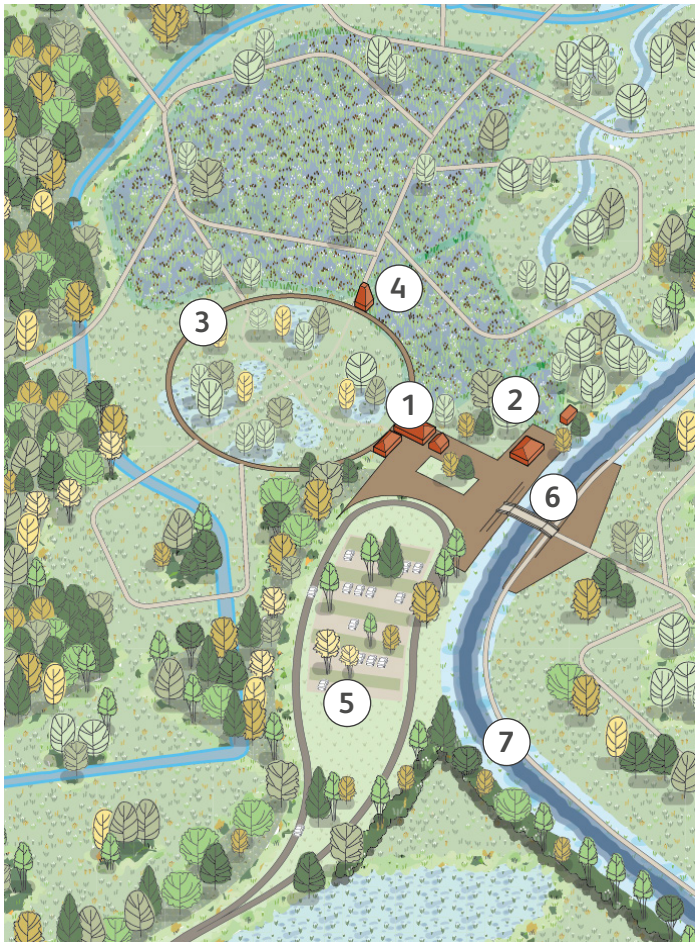
Nature education centre



Location plan

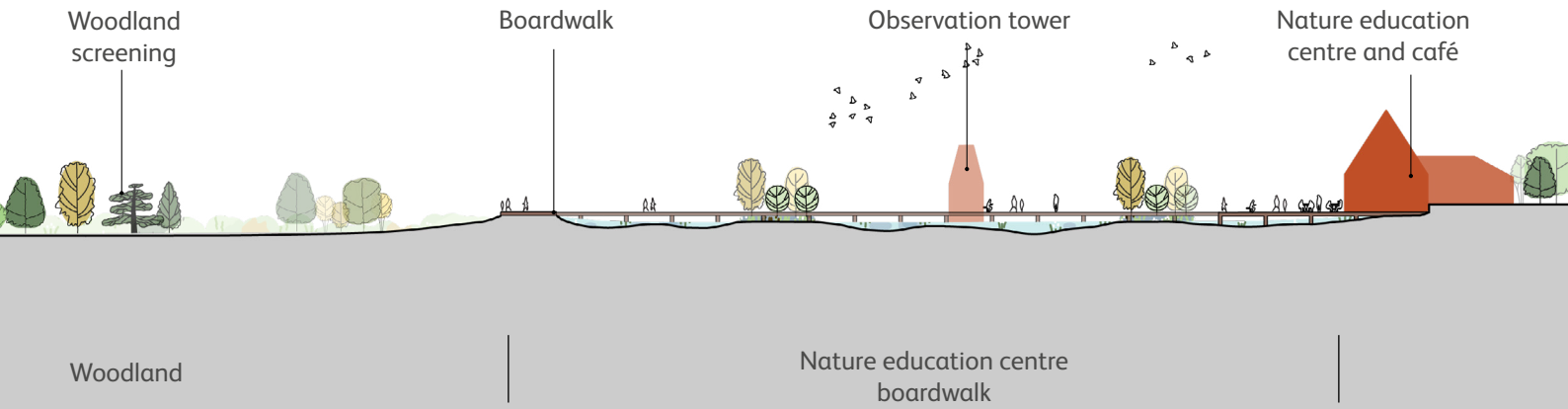
A nature education centre, located on the south-western edge of the reservoir, could provide direct access to seasonal wetlands and nature trails. The centre would showcase habitats and wildlife through features such as boardwalks, bird hides and dipping platforms.

New seasonal wetlands, woodlands, grasslands and water courses would offer opportunities to learn about and enjoy nature. We will explore the potential for a dedicated Nature Ranger to lead activities and courses at the proposed nature education centre, alongside self-guided trails and educational signage.

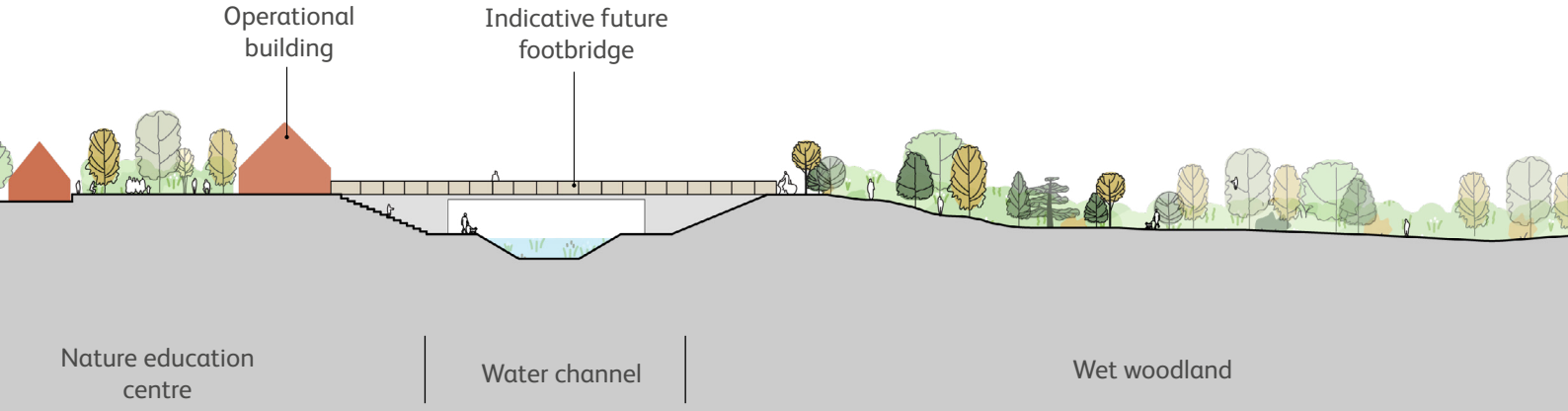


Indicative view of new nature education centre

1 Nature education centre and café
2 Operational buildings
3 Boardwalk
4 Observation tower
5 Car park
6 Space for future footbridge
7 Water channel



Illustrative view of nature education centre



05

Building the project

If our application for development consent is granted, the enabling phase of construction will then begin. Our target date is for the reservoir to be operational from 2040, although filling it with water will take several years. Some construction of visitor facilities, as well as landscaping activities will continue until 2043.

Have your say!

How we are planning to manage construction effects

We're already planning how we'll phase the construction to reduce the effects on local communities and the environment. Our draft Code of Construction Practice (CoCP) sets out the measures that will be followed by our contractor(s) to reduce impacts during the construction phase. You can find our draft CoCP at **thames-sro.co.uk/sesro/statcon2025.** An updated version of the draft CoCP will be submitted as part of the DCO application; this will be kept under review during the examination period. The final version of the CoCP at the end of the examination will become certified when the DCO is made.

Contractors will be appointed who will be responsible for delivering the works in line with the terms of the DCO, including the CoCP. They will also be required to sign up to and adhere to the Considerate Constructors Scheme.

Our draft CoCP is divided into sections

Environmental management
This section provides an overview of the management systems to be implemented during construction

Community relations and stakeholder management
This section provides an overview of engagement with the local community, covering communications, enquiries and complaint mechanisms

General requirements
This section covers hours of work, good housekeeping, security and other measures

Aspect specific requirements
This section outlines the measures that will be used to reduce the effects of construction activities, based on the topics assessed in the Preliminary Environmental Information Report (PEI Report).

Moving materials to and from work sites

Although a lot of the material we need to build the embankments will be found on-site, we'll still need to bring in material from outside. We've refined proposals shared at the 2024 consultation for a dedicated temporary rail siding and material handling area on land next to the existing Great Western Main Line railway line, approximately 1km south of East Hanney and 900m south-west of the site. This would allow us to use this railway line to deliver some bulk materials – such as stone, sand, and gravel – needed to construct the reservoir to reduce the volume of construction vehicles on the road network.

We'll develop a Construction and Logistics Strategy which will form part of the suite of documents we submit in our DCO application. This will outline our approach to coordination the workforce, equipment, materials and waste during the construction phase. This will be accompanied by a Construction Traffic Management Plan setting out management, safety and control measures to reduce impacts on nearby villages and residents.

Where we need to bring in materials using HGVs, we'll focus on using the A34 as the primary route. Construction traffic will avoid local villages unless absolutely necessary to reach a specific site access location.

We'll build internal haul roads within the reservoir site so that construction traffic can move around the site without impacting on the local road network.

Access to the site

The main access into the site would be from the A415 (Access A1). We anticipate requiring occasional access from five other locations for smaller numbers of vehicles:

- Access to enable the construction of the Rail Siding and Material Handling (RSMH) facility (Access A2)
- Access to support the construction of the western extent of the Steventon to East Hanney road diversion (Access A3)
- Access to support early ecological and archaeological mitigation work, and the western watercourse diversion (Access A4)
- Access to support the construction of the eastern extent of the Steventon to East Hanney road diversion (Access A5)
- Access for the construction of the River Thames intake-outfall structure and associated works (Access A6)

Construction compounds and working areas

We'll need approximately 20 compounds over the construction period to support the different phases of construction and the different types of work being carried out.

Our main compound would be in the north east of the site, near to where we are planning to construct the pumping station. This would support the construction of the embankments, pumping station, and tunnelling. It would also provide welfare facilities, and site administration offices.

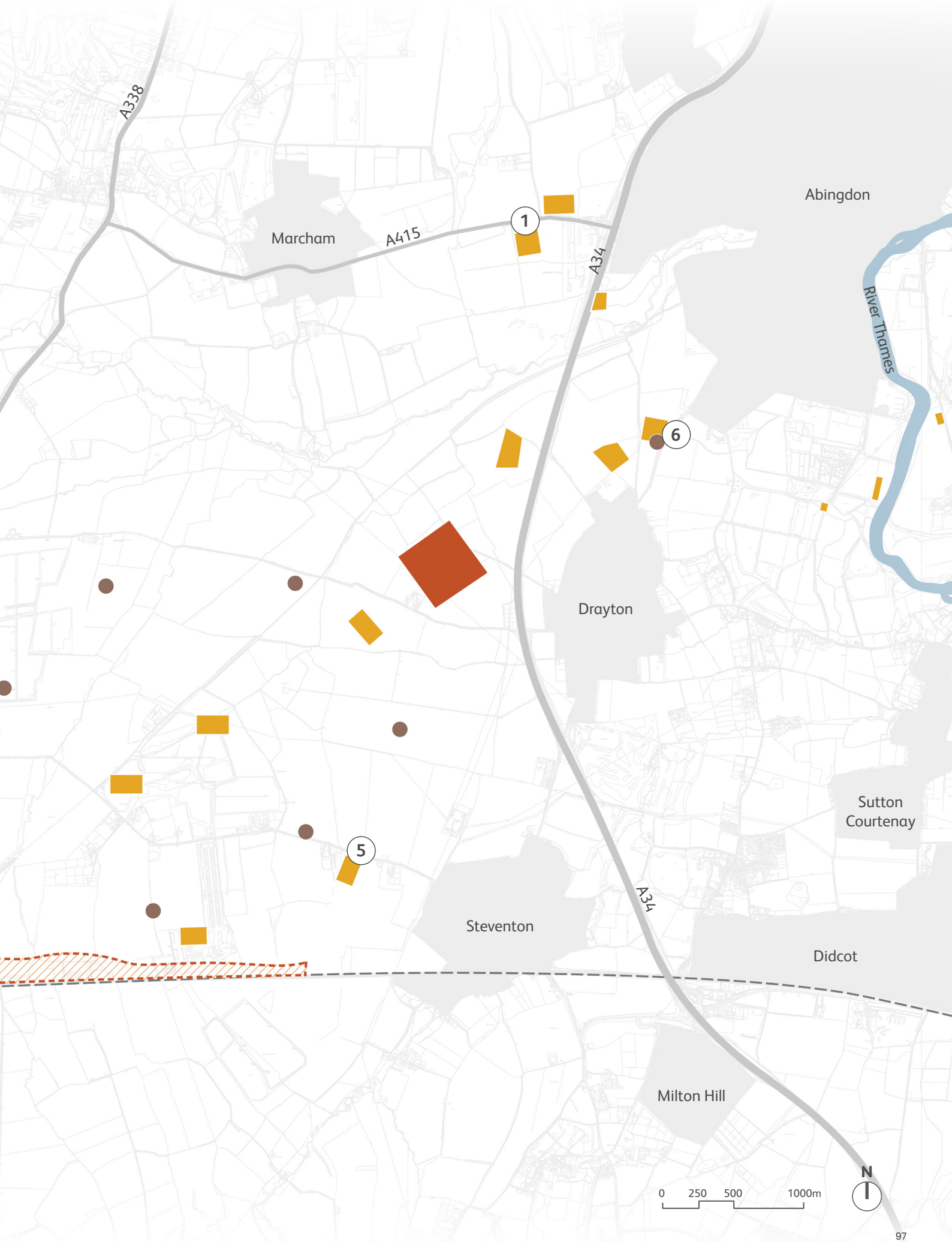
Other compounds would be smaller and located near to where infrastructure is being built to support specific activities.

Compounds would be established when needed and then demobilised once that phase of construction is completed.

Construction site access points:

1. Access A1 (main access point to construction site)
2. Access A2
3. Access A3
4. Access A4
5. Access A5
6. Access A6

- Main compound
- Compounds
- Rail siding and material handling facility
- Welfare/ satellite compounds


A338
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Abingdon
River Thames
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Drayton
Sutton
Courtenay
5
A34
Steventon
Didcot
Milton Hill
0 250 500 1000m
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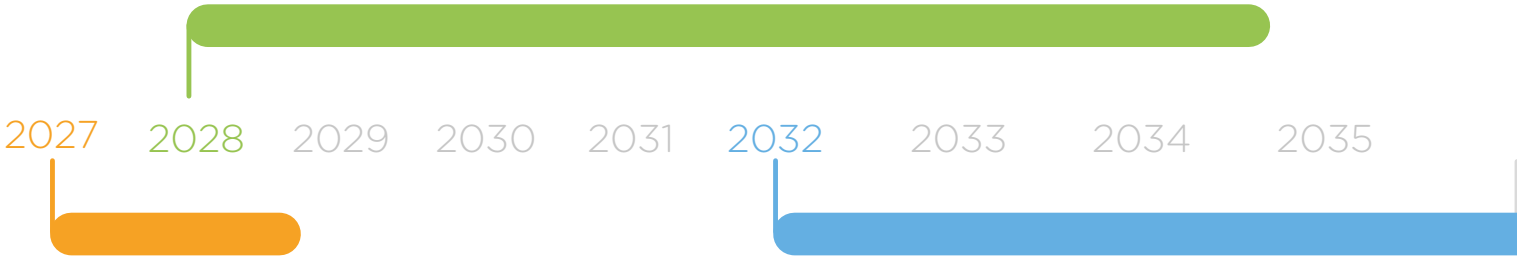
Construction phases

Construction is expected to take place in three overlapping phases, early works, enabling works and main works. These phases would be followed by commissioning and filling of the reservoir. The full details of the construction approach are still being refined. Phasing may change as more information becomes available, as a result of feedback and through our ongoing surveys and design work.

Find out more
Our video **'Building the project'** is on our website **thames-sro.co.uk/sesro/statcon2025**

Enabling works phase – setting up and starting work (2028 to 2034)

Once the DCO is granted we'll start on our enabling works which will include the building of the new East Hanney to Steventon road, and access roads onto the site. We'll also begin site clearance and demolitions, establishing our main compounds, and carrying out utility diversions and watercourse diversions. By 2032 we're planning to build the temporary rail sidings.



Early works phase (2027 to 2028)

The first phase would begin before the DCO is consented by the Secretary of State. It includes the creation or enhancement of ecological habitats, followed by translocation of protected species where feasible. This is likely to be an ongoing task throughout construction. We'd apply for licences and secondary consents as required.

Main works phase (2032 to 2043)

We'll be beginning the construction of the embankments and continuing the watercourse diversions on the eastern and western side of the reservoir location.

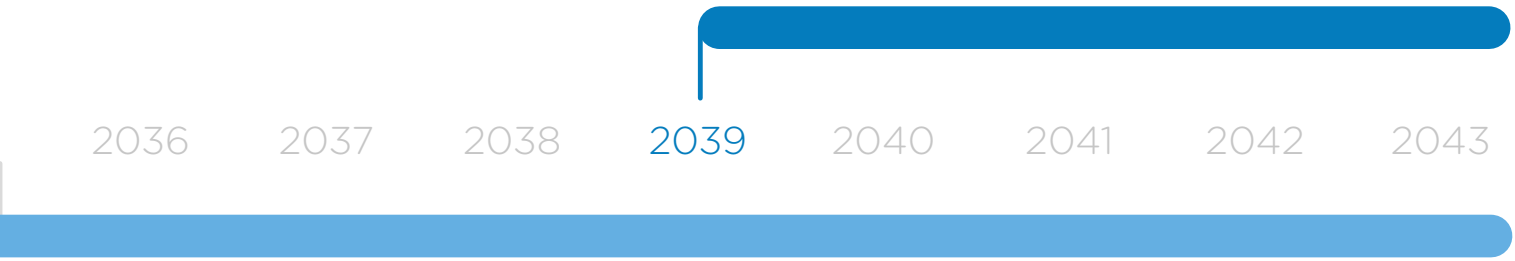
The operational infrastructure, such as the pumping station, the river and reservoir tunnel, the intake and outfall structure and the water treatment works will also be built. We'll also start construction of the public and recreational facilities, as well as landscaping.

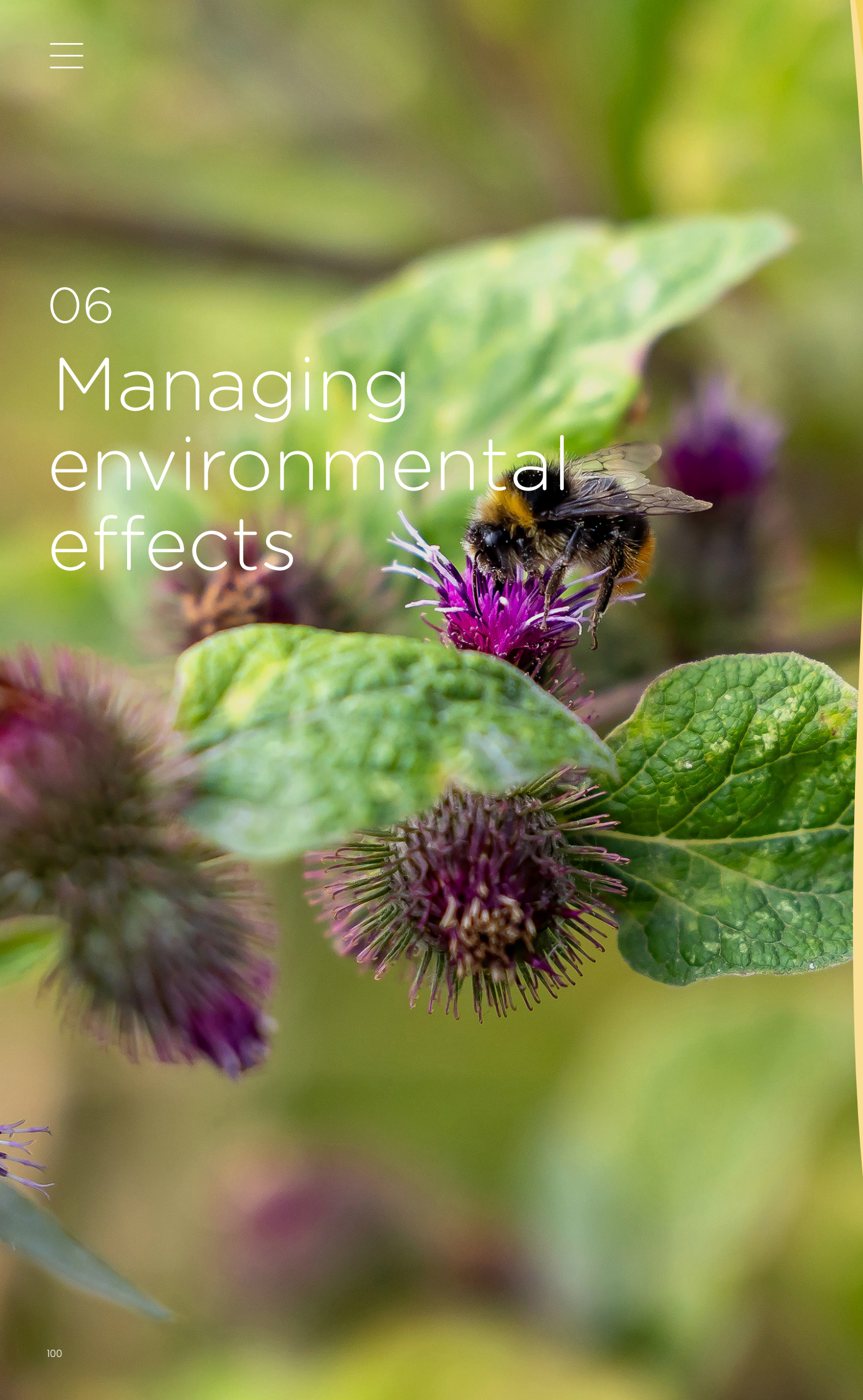
Outline Phasing

Have your say!

Commissioning and filling – bringing the reservoir into use (2039-2041)

From 2039 we anticipate we'll start filling the reservoir with water from the River Thames, once the Construction Engineer has certified it is safe to do so. Water will be available for use from 2040, and between then and 2043 we'll be completing the recreational facilities and landscaping activities.





06

Managing environmental effects

In common with other major projects, we must carry out an Environmental Impact Assessment (EIA), to evaluate the likely significant environmental effects of our project.

The EIA is an important part of the planning process, ensuring decision-makers are aware of the project's potential environmental effects, both negative and positive, before choosing whether to grant consent. The EIA helps protect the environment and manage impacts on local communities by requiring us to consider how we might mitigate the negative effects our proposals may have. This involves carrying out assessments on a range of environmental aspects of the project.

The EIA takes place during the pre-application period (see the Development Consent Order (DCO) process section of this brochure) and is reported through three main documents: the Scoping Report, the Preliminary Environmental Information Report (PEI Report), and the Environmental Statement (ES). The production of each of these documents marks an important milestone in the project's EIA. The last of these, the ES, is submitted as part of the project's DCO application.

Have your say!

Scoping Report and Scoping Opinion

The Scoping Report sets out which environmental aspects we think we need to assess to understand the project's likely significant effects.

It explains how we plan to carry out the assessments and how we'll mitigate any significant impacts during the project's construction and operation. We submitted our Scoping Report to the Planning Inspectorate (known as PINS) in August 2024 and, in October 2024 PINS responded (on behalf of the Secretary of State) with its Scoping Opinion, which sets out where they agreed or disagreed with how we proposed to carry out our assessments.

To produce its Scoping Opinion, PINS sought feedback from stakeholders such as local planning authorities, environmental bodies such as the Environment Agency and Natural England, and other stakeholders such as utility providers and the emergency services.

You can read the project's Scoping Report and Scoping Opinion on the PINS website at **Documents | South East Strategic Reservoir Option (SESRO)**

Preliminary Environmental Information Report

The next milestone in the EIA after producing the Scoping Report is the publication of the PEI Report.

We have prepared a PEI Report and a Non-Technical Summary (NTS) and this forms part of our statutory consultation materials alongside this brochure. The assessment of effects reported in the PEI Report is preliminary and considered a reasonable 'worst case'.

For each of the aspects, we have outlined our preliminary environmental assessments, identifying where there could be likely significant effects during construction or operation.

More information about each of these aspects is in our PEI Report and our PEI Report Non-Technical Summary (NTS), both of which can be found on our consultation website at **thames-sro.co.uk/sesro/statcon2025**

Environmental Statement

The final part of the EIA process is producing the project's ES. The ES will be published as part of our DCO application, which is expected to be submitted in 2026.

The contents of the ES and the way the assessments are carried out are governed by law and good practice, and the ES will be written by experts in their fields. Our ES will set out our completed assessments of the likely significant environmental effects of the project for each of the aspects, for both construction and operation. Where likely significant adverse effects are identified, the ES will set out how those effects would be managed by appropriate mitigation, and whether those effects would be monitored after consent has been granted.

Planning Inspectorate
The PINS is an executive agency of the Ministry of Housing, Communities and Local Government. PINS is responsible for administering DCO applications on behalf of the Government, appointing independent examiners to review those applications, and make recommendations to the appropriate Secretary of State as to whether an application should be granted consent or not. The Secretary of State decides whether consent is granted for any application, choosing to either follow the independent PINS recommendation or not.

How we have assessed and mitigated impacts

The assessments within the PEI Report are based on a reasonable 'worst case' as a precautionary approach as been taken where we are still developing the design and undertaking further survey work.

Where initial likely significant effects are identified at this stage, these will inform our ongoing design development so we build in further mitigation to reduce effects. This means that effects may ultimately be determined as not significant in the ES once data gaps are addressed and mitigations are further developed. For more detail about any of these aspects and our methodology for assessing impacts, please go to the relevant chapter of the PEI Report, or the PEI Report Non-Technical Summary.

Water environment

This aspect looks at the potential impacts of the project on movement and flows of river water and groundwater, water quality and flood risk in areas that could be affected by the project's construction and operation.

During construction

Our preliminary assessments have identified likely significant effects on the water environment through the diversion of two watercourses, creation of floodplain, and the provision of a water channel for the Wilts & Berks Canal. Other construction activities such as excavations, dewatering, tunnelling, and watercourse crossings, plus construction of the intake/outfall structure on the River Thames will also cause effects on the water environment.

There are likely to be some temporary significant adverse effects from construction on surface water quality, flows and the physical characteristics of watercourses, including in sections of the River Thames, River Ock and in other smaller watercourses and ditches.

During operation

Our assessments have identified that there is likely to be a permanent beneficial effect on several local brooks once the reservoir site is operational, due to the creation of Priority Areas for Biodiversity which would improve water flows in the brooks. However, at this preliminary stage we've also found some permanent adverse effects due to likely changes in water quality in other watercourses due to changes in the surface and groundwater entering these ditches. At this stage, emergency testing of reservoir drawdowns and discharges into the River Thames is also likely to cause a significant temporary adverse effect. More detailed assessments are underway, and we're exploring additional mitigation measures to reduce these impacts.

Air quality

This aspect assesses the likely significant effects on air quality during construction and operation, as a result of construction vehicle emissions or operational maintenance vehicles, and dust from demolition and construction activities.

During construction

Effects from dust may arise as a result of most construction activities, with an impact from demolition, earthworks, and other construction activities. However, the preliminary assessment of effects for air quality has concluded no likely significant effect during construction with the implementation of standard good practice and embedded design mitigation.

During operation

The preliminary assessment of effects for air quality has concluded no likely significant effects during operation as there would be no dust creating activities.

Additional modelling is being undertaken to assess the potential exhaust emissions impact of operational vehicles, as well as visitor vehicles and this will be presented in the ES as part of our DCO application.

Terrestrial ecology

This aspect assesses the project's potential impacts during construction and operation on terrestrial ecosystems, which are those found on land – in particular, sites or species that are designated (protected by law) due to their significance.

During construction

As our preliminary assessments are ongoing, at this stage we consider all construction activities to have the potential to cause significant adverse effects, for example through changes to habitats within the reservoir site potentially leading to declines in local populations, displacement from territories, changes in feeding activity and elevated stress to species.

During operation

Once operational the key causes of likely significant effects are the increased presence of people, vehicles, and potentially lighting, due to a regular workforce, visitors to the site, and maintenance activities. There will also be changes to land management which could change hydrological conditions and affect some habitats or species. The creation of the reservoir and surrounding land may benefit certain species of bats and birds, by enhancing habitat availability for these species and therefore supporting population growth.

We're continuing our assessments of the likely impacts on terrestrial ecology and developing additional mitigations to reduce any significant effects; these will be presented in our ES when we submit our DCO application.

Geology and soils

This aspect assesses how the project's construction and operation affect the underlying geology and soils. It also considers land contamination effects on human health, surface water and groundwater.

During construction

Our preliminary assessment has identified construction effects that are likely to be significant and adverse. These include the permanent loss of agricultural land some of which is classified as being the best and most versatile agricultural land. There may also be adverse effects on some soil functions through degradation during soil handling, remediation, or land use change as a result of the construction works.

During operation

We've identified likely significant beneficial effects during operation due to the improvement of specific soil functions or structure through the provision of new habitats. Soil functions may be beneficially affected through the appropriate reuse of suitable soils for specific end uses and to support new habitats.

We're continuing our assessments of the likely impacts on geology and soils and developing additional mitigations to reduce any significant effects; these will be presented in our ES when we submit our DCO application.

Landscape and visual

This aspect assesses the potential impacts of the project's construction and operation on the surrounding landscape and people's views and visual amenity, which includes views from local communities, open spaces, and the North Wessex Downs National Landscape.

During construction

The construction of a reservoir of the scale we're proposing will inevitably have a significant visual impact, particularly until the planting of new trees, hedges and shrubs has established. We're looking at how we can reduce the visual impact of construction on local residents, users of nearby roads, and users of nearby Public Rights of Way (PRoW). We're considering how best to light the site so that it's safe for construction but doesn't 'spill' onto the local area. We're also planning early woodland and screening planting where possible.

During operation

The reservoir embankments and some of the operational infrastructure such as reservoir towers, and the pumping station will change the form of the skyline from some locations. The new intake and outfall on the River Thames will also be a permanent structure on the river bank, and will be visible from the Thames Path National Trail on the opposite bank. We're working on designs for the intake and outfall to allow it to more easily be integrated within the local landscape, and to reduce the visual impact.

Users of PRoW within the reservoir site will benefit from more varied and elevated visual experiences than at present, with more expansive views across the vale, and toward the North Wessex Downs. We're continuing our assessments of the likely impacts on landscape and visual amenity and developing additional mitigations to reduce any significant effects; these will be presented in our ES when we submit our DCO application.

Major accidents and disasters

This aspect predicts how project-specific events and hazards may affect the environment, people or infrastructure.

Our preliminary assessments have not identified any likely significant effects from major accidents or disasters during the construction or operation of the project.

We'll prepare an on-site emergency plan which will be shared for emergency planning purposes with the Environment Agency and other relevant bodies, and security and emergency measures will be in place to prevent vandalism or malicious damage.

Human health

This aspect assesses the likely significant effects on the health of local people during the construction and operation of the project.

During construction

We appreciate people may feel uncertain or anxious about the construction and this can impact on mental health and wellbeing. Impacts to local people could also arise from general construction activities causing changes to air quality and the noise and visual environment. Construction may also impact on how people use the local PRoW network and other leisure facilities such as the West End Allotments. Mitigations for these impacts range from the timely provision of information about proposed construction activities, effective community liaison and engagement, and diversions to PRoW where practicable. Our draft Code of Construction Practice sets out how we'll mitigate the effects of construction on the local communities as far as practicable.

During operation

Our preliminary assessments indicate likely significant adverse effects during operation including permanent changes in access to other communities, community assets and services, primarily due to increased visitor numbers to the local area and additional traffic. We've also identified likely significant benefits from increased active travel and physical activity for regular visitors to the site, due to the provision of new on-site recreational routes and facilities (particularly the recreational lakes centre). Children and young people visiting the Nature Education Centre are likely to experience a permanent, beneficial effect from the provision of on-site outdoor education opportunities.

Noise and vibration

This aspect assesses the predicted effects of the project's construction and operation on noise and vibration levels, including construction activities and traffic. Our assessments are preliminary and are carried out on the basis that all works will be conducted in accordance with the principles and procedures set out in our Code of Construction Practice (CoCP).

During construction

Likely significant effects are identified in relation to a broad range of construction activities including the construction of site compounds; highway works including the A34 Marcham Interchange, the Steventon to East Hanney Road diversion and provision of site access points; construction of the intake/outfall structure on the River Thames; the rail sidings and materials handling facility and associated rail modifications; utilities and the western watercourse diversion. However, it's likely the effects would be temporary.

During operation

During operation, there is the potential for noise and vibration effects including noise from the pumping station, recreational lakes centre (including the visitor centre), water sports centre and nature education centre. However, the preliminary assessment of effects has concluded none of these effects are likely significant effects during operation.

Historic environment

This aspect assesses the potential effects of the project's construction and operation on sites of archaeological value, as well as on designated historic assets such as conservation areas and listed buildings.

During construction

The preliminary assessment has identified some potential significant effects on the historic environment during construction. Heritage assets, including buried paleo-environmental remains (archaeological deposits containing materials that can be used to understand past climates, landscapes, and the way humans interacted with them) and other, buried remains from the Prehistoric periods (approximately 1,000,000 BCE -10,000 BCE) to the 20th century are likely to be partially or entirely removed by direct construction activities. The demolition and removal of the non-designated historic buildings of the World War II vehicle depot at Steventon, as well as the former route of the Wiltshire and Berkshire Canal would also be required.

Additional mitigation is being explored and will include recording buried and above ground heritage assets affected by construction, to provide an accurate record in the public domain for future research. This would typically be done through archaeological excavation before or during construction. The presence, nature, and significance of archaeological remains within the site will be fully assessed in the ES following the completion of site evaluations.

During operation

The preliminary assessment has identified some potential significant adverse effects during operation, caused by the presence of structures which could change the setting of historic features due to changes in views, lighting or noise, particularly for those closest to the reservoir. There would also be a loss of some historic field patterns and changes in groundwater levels and flows which could lead to 'drying out' of waterlogged ground, which can be detrimental to buried heritage assets.

We're continuing our assessments of the likely impacts on the historical environment and developing additional mitigations to reduce any significant effects; these will be presented in our ES when we submit our DCO application.

Traffic and transport

This aspect assesses the potential impacts of the project on traffic levels during the construction period, with these being a result of the movement of materials and waste, and construction worker journeys. We've also considered how people who use the local PRoW network might be impacted during construction. Once the project is operational we've also considered the impact of traffic relating to visitor journeys as well as operational traffic.

During construction

Our preliminary assessments have identified that users of several local PRoW will be adversely affected by the construction phase as existing routes will be closed or diverted. There may be delays to drivers on the A415/A34 Marcham interchange due to increased construction traffic through deliveries or workforce traffic. We've also identified that there will be likely significant effects on river users as we build the intake and outfall structure because the navigable width of the river will be reduced.

Where feasible we'll use the railway to bring in materials during construction. These, and other mitigation measures, will be set out in our Construction Traffic Management Plan, which will be produced prior to construction. We'll also encourage the use of sustainable traffic modes by the workforce, such as walking, cycling and use of public transport.

We're working on identifying additional mitigation measures to reduce the impact of construction on local traffic and transport.

During operation

Some PRoW will be permanently lost as they are within the footprint of the reservoir. However the new network of paths across the site will provide a variety of routes and terrains, improving the connectivity within the site and to the villages beyond although some routes may be longer than the existing. The navigable width of the River Thames will be permanently narrowed due to the intake and outfall structure. Further design work is ongoing to minimize the loss of width.

We'll continue to develop mitigation to ensure adverse effects relating to traffic and transport are avoided or reduced as much as possible.

Materials and waste

This aspect assesses the likely impacts of the project's construction and operation on consuming materials and producing waste.

During construction

Significant quantities of construction material will be required for the building of the reservoir, its infrastructure and the habitats and recreational areas around the site. The site for the reservoir has been chosen because the clay for the embankment is available on site. We've also assessed the amount of waste that will be produced during construction and although we'll try to reuse or recycle as much as possible, there will be some material needing to go to landfill facilities.

During operation

No assessment of operation effects for materials and waste has been carried out because those effects are not expected to be significant.

Socio-economics and communities

This aspect assesses the predicted impacts of the project on local communities, including their access to community and recreational facilities such as PRoW, and the impacts of increased noise, visual impacts, air quality and traffic both during construction and once the project is operational. The assessment also includes any predicted economic effects on local people and businesses. The impacts of temporary and permanent land take are also assessed including demolition of buildings and direct development of land to accommodate the project.

During construction

We know that a construction site on the scale of the reservoir site will have adverse impacts on local communities, through general construction activities. In particular, there will be demolition of residential and commercial buildings and loss of some land within the site, which will affect the commercial viability of those properties or facilities. Our preliminary assessments have also identified likely significant effects through the changes to accessing PRoW, through the closures and diversions we'll have to put in place. We've also identified a likely significant adverse impact on the availability of accommodation and public services through the influx of construction workers. We're continuing to assess how we could mitigate these impacts. On the other hand, the construction period will impact positively on local employment through improved skills, jobs and training opportunities.

During operation

Our preliminary assessments have identified some likely significant adverse impacts through the permanent changes to some PRoW, and through the narrowing of the River Thames near the intake and outfall structure. However permanent beneficial effects will be provided through the provision of new recreational and leisure facilities, and through employment opportunities.

Greenhouse gases

This aspect estimates the amount of greenhouse gases (GHG) that would be emitted during the project's construction and operation, including those associated with vehicle movements, materials usage and waste disposal.

During construction

Greenhouse gas emissions associated with the construction of the Project are currently considered to have a likely significant adverse effect. Additional opportunities to mitigate greenhouse gas emissions during construction are being actively explored, including low-carbon materials and design optimisation, as well as the extent to which alternative fuels and low-emission vehicles can be used during the construction process.

During operation

Operational emissions are not expected to result in significant adverse effects. This reflects the relatively low emissions profile during operation and the benefits of embedded mitigation, including renewable energy generation and efficient infrastructure design.

Climate resilience

This aspect predicts how resilient the project would be to risks that are presented by climate change, including increased likelihood of floods, droughts and storms. The assessment also predicts whether the project would have any significant effects on the environment due to climate change.

During construction

Our preliminary assessments have not identified any significant construction effects on climate resilience. Climate-related risks during construction would be managed through weather resilience measures based on good practice and our site-specific knowledge. These measures would minimise the effects on the construction programme and the local environment in the event of extreme weather events.

During operation

We've identified that future high temperatures could lead to operational stress to some operational components, particularly in equipment such as valves or pumping systems. We'll need to mitigate for this. Hotter summers and heatwaves could increase the risk of spontaneous grassland fires on site, however our landscape and habitat design will reduce this risk. Other measures, such as incorporating firebreaks into the landscape design, are also being considered.

Aquatic ecology

This aspect assesses the project's impacts during construction and operation on aquatic ecosystems, which include plants and wildlife found in and around bodies of water, including local rivers and streams.

During construction

Likely significant - but temporary - adverse construction effects are identified in relation to the diversion of watercourses across the site. The loss of habitat and severance while new channels are established is likely to affect the distribution of aquatic species in the short term, but it's anticipated that within two growing seasons these will recover. Changes in groundwater levels and flow pathways may also impact aquatic species, particularly as we divert or realign watercourses around the site. Construction of the intake and outfall is also likely to result in loss of marginal habitat. Construction work will be timed to avoid sensitive periods for relevant species as far as possible. We'll also implement measures for the treatment and control of invasive and non-native species.

During operation

The areas of new habitat being created, through provision of lakes, seasonal wetlands and linear watercourses will provide significant long term beneficial effects. The water quality in the River Thames downstream of the outfall is also likely to improve as a result of the project. Work is ongoing to further understand the likely impacts of operation on the aquatic environment, and to identify additional mitigation to avoid or reduce significant adverse effects.

Have your say!

Cumulative effects

This assessment considers all the aspects with a view to predicting whether their combined effects could result in any additional significant effects on the environment or local communities, during either construction or operation. This aspect also looks at how significant the effects from the project would be when considered alongside the known impacts from other projects either being constructed or operated at the same time.

Our early assessments have identified several potential significant adverse and beneficial cumulative effects with other projects, such as housing developments or local flood schemes, and further technical assessments are ongoing.

What happens next?

We'll continue our surveys and prepare specialist modelling to help us better understand the baseline environmental conditions. This will help us to identify additional mitigation measures to reduce any adverse effects. Our final assessment will be presented in the ES.

07

Information for people with land affected by the project

We've identified the land we may need to build and operate the reservoir. The project's draft Order limits show the land that we currently think we'll need to deliver the project.

This chapter explains how we're working with landowners and occupiers, what rights may be required, and how people can get in touch with our dedicated Land and Property team to discuss the proposals.

How we have identified the land we may need

While developing our proposals for the new reservoir, we've been using HM Land Registry and desktop research to identify people who own or have an interest in the land that is within the draft Order Limits.

We've also sent out Land Interest Questionnaires to those land interests we have currently identified, asking for information to clarify their ownership (or interest) in the land. The information we've received helps us to engage with potentially affected people. We have also visited properties to speak with landowners about their land interest and to give them an opportunity to find out more about the project or ask any questions they might have.

You may also have received a letter marked Section 42 (which is a formal notification of our duty to consult you) it could mean that land or property that you occupy or have an interest in has been identified as potentially being affected by the project in some way be it directly or indirectly. If you'd like to talk to us about what that might mean, please contact us using the details provided in the letter, or the contact information below.

Contact our Land and Property team
Email us at **property.SESRO@thameswater.co.uk**

For property related queries you can phone us on **0800 033 6677**

Land within the draft Order Limits - Category 1 and 2 land interests

Owners, occupiers, lessees, tenants and those with rights over land or property within the project's draft Order Limits are known as having 'Category 1' or 'Category 2' land interests as defined by the Planning Act 2008.

The Planning Act 2008 requires developers of nationally significant infrastructure projects, including our proposed new reservoir, to identify and consult with people in these categories to ensure they have a fair opportunity to make representations about the project.

Land outside the draft Order Limits - Category 3 land interests

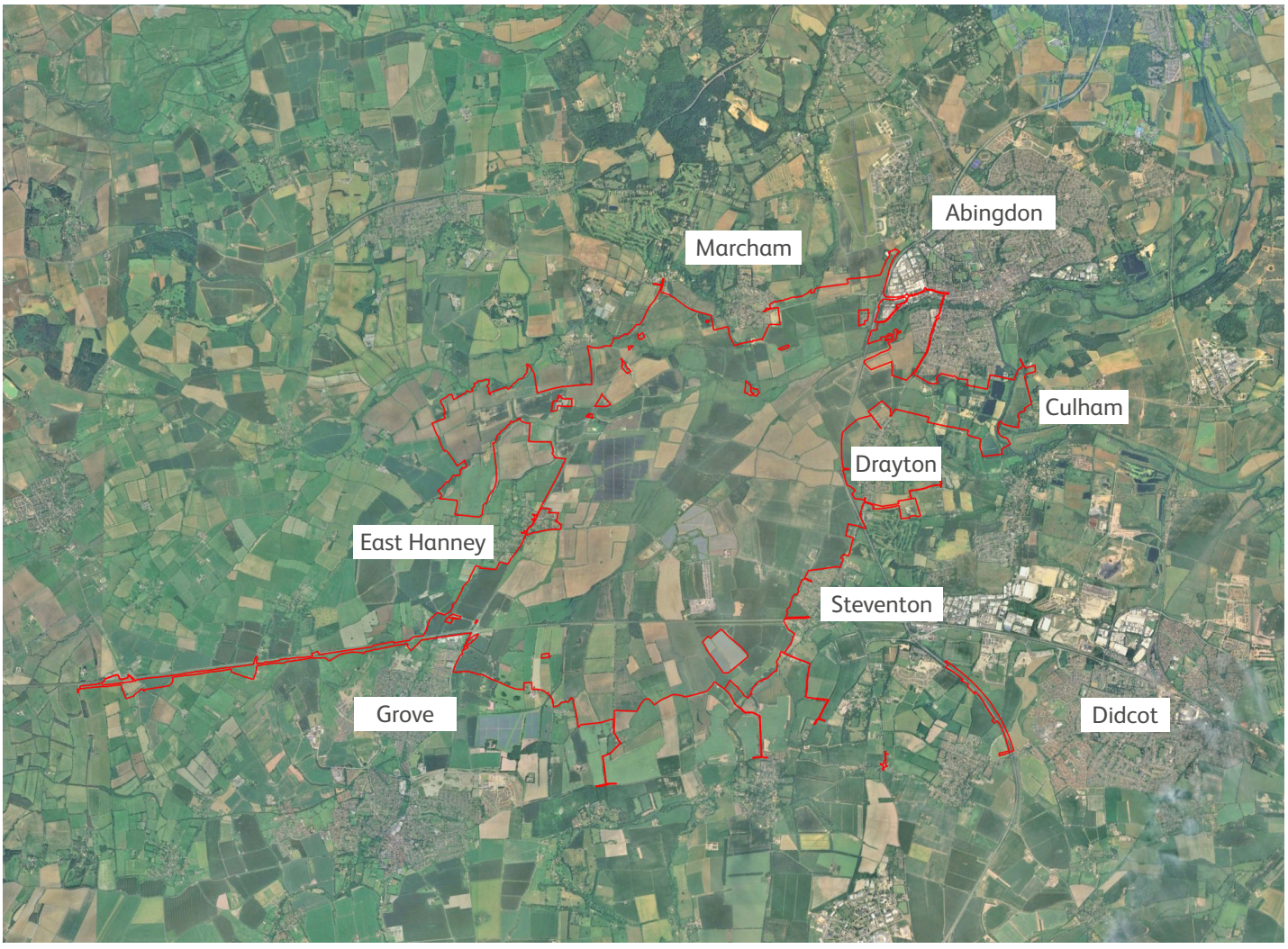
The Planning Act 2008 also requires us to identify people whose land is not needed by the project (and is therefore outside the draft Order Limits) but could be indirectly affected by the construction activity or the operation of the proposed infrastructure.

These people are described in the Planning Act 2008 as having a 'Category 3' interest, meaning that they might be able to claim compensation if they can evidence that the value of their land has been impacted by the project's indirect effects such as construction or operation activity such as dust, noise, vibration or similar. Our assessment of which properties to include as Category 3 interests is based on the extent to which they might be impacted during construction or operation, which varies according to location.

You can view the project's draft Order limits online using our interactive map, or in our map books, all of which can be found at our consultation website at **thames-sro.co.uk/sesro/statcon2025**

As at the time of our statutory public consultation, we have identified a large number of Category 3 properties on a precautionary basis. As our assessments of the potential impacts of the project continue, we expect the number of Category 3 interests to significantly reduce, and there are likely to be fewer Category 3 interests identified at the time of our proposed DCO submission. Our construction activity would be regulated by a Code of Construction Practice and where we follow this code we expect the impact on Category 3 interests to be minimal.

We've sent Land Interest Questionnaires to all those currently identified as having Category 1, 2 or 3 land interests and will be sending Section 42 letters to them too.



Our current draft Order limits

Acquiring land and rights over land for the project

Where we need to secure land or rights for the reservoir, our preference is to do this by agreement.

Where we need to secure land or rights for the reservoir, our preference is to do this by agreement.

We would seek to enter into an agreement with the landowner through an Option to Purchase or other similar arrangement where we agree to purchase the identified land if the project obtains consent. In this agreement, a small premium (option fee) may be payable upfront to the landowner to secure the agreement. These payments would be made to landowners regardless of whether we ultimately exercise the option to acquire the land, cancel the option, or the project is not approved for a DCO.

If we can't reach agreement, then we'd use compulsory acquisition powers that we'd seek in our application for Development Consent, under the Planning Act 2008.

Using compulsory acquisition powers is our least preferred approach and we'd only pursue this approach if we are not able to reach agreement. The Government has published guidance to help people understand the compulsory purchase compensation framework, at **www.gov.uk/government/publications/the-land-compensation-manual**

In some circumstances we may decide to acquire land early if the landowner is agreeable but this approach is less likely and Options to Purchase or similar arrangements remain the preferred method of securing land for the Project.

Acquiring subsoil land for our tunnel

As part of the project we need to construct a tunnel from the reservoir to the River Thames for our intake and outfall infrastructure. Because this tunnel is deep below the surface we only need to acquire the 'subsoil' through which it passes and not the surface land. Again, our preference is to acquire this subsoil through agreement with the landowner.

Where we only need subsoil land it means the surface land can continue to be used in the same way it is now and will continue to remain in the ownership of the landowner.

Accessing land for surveys

As we continue to develop our designs for the new reservoir, we'd need to continue to carry out surveys, investigations and assessments, focusing on local habitats and ecology, waterways, archaeology and ground conditions. These are likely to continue beyond the submission of our application for Development Consent, and the information obtained will inform the final design and construction planning.

We've already undertaken an extensive survey programme which has been enabled through Survey and Investigation Licences agreed with landowners. Surveys will continue through these Licences, but if we need licences for surveys on other land, we will contact those landowners. Where access can't be agreed through a Licence, and we are unable to carry out equivalent surveys on nearby land, then we may have to seek powers to access land under section 172 of the Housing and Planning Act 2016, although this is our least-preferred course of action.

Next steps for landowners and affected parties

We know a project of this size and complexity can cause concerns for those whose land or property may be affected. We're committed to making ourselves available to understand those concerns and answer questions. For further information, or if you have queries related to land and property, please contact our experienced Land and Property team using the details on this page, or meet them at our community information events. You can find more details of these at **thames-sro.co.uk/sesro**

08
Development Consent Order process

In June 2025, we received a Section 35 Direction from the Secretary of State for the Department for Environment, Food & Rural Affairs (DEFRA), confirming that SESRO should be treated as a project of national significance. This means we must seek powers to build and operate the project through a Development Consent Order (DCO) application.

The Planning Act 2008 sets out the legal framework for applying for, examining and determining DCO applications.

There are several ways to engage in the process. The dedicated project page on PINS website can be found at **national-infrastructure-consenting.planninginspectorate.gov.uk/projects/WA010005**

The application process

1. Pre-application

Before submitting our DCO application, we're required to carry out public consultations on our proposals. We held a non-statutory consultation in summer 2024, and now we're carrying out our statutory consultation.

We've a duty to have regard to all consultation responses and to summarise these in a Consultation Report, to be submitted with our DCO application. We'll use this document to explain how feedback has been considered in the design of the project.

The Consultation Report will be submitted, alongside all other relevant documentation required to support our DCO application, in 2026. This application will be made to the Planning Inspectorate (PINS), which will examine the application on behalf of the Secretary of State.

2. Acceptance

Following submission of our DCO application, PINS has 28 days in which to formally accept the application. We anticipate submission to be autumn 2026. It will consider whether the proposal meets the standard required to be examined and whether sufficient information has been provided by the Applicant.

A key consideration during the acceptance period is whether we, the Applicant, have consulted adequately. Our Consultation Report and any adequacy of consultation submissions from local authorities will inform PINS' decision whether to accept or not.

3. Pre-examination

Once an application has been accepted, an Examining Inspector (or panel of Inspectors) will be appointed by PINS to be the Examining Authority. The application will be formally advertised, and copies of the application documents will be published on the PINS website. Relevant local authorities automatically become "Interested Parties". Members of the public, and organisations and interest groups can register as an Interested Party within a 28-day minimum registration period, which gives them the right to submit written representations and to request the right to speak at a hearing.

A Preliminary Meeting will take place to consider procedural matters as to how the application will be examined and an examination timetable will be set. There is no statutory timetable for this pre-examination stage, but it usually lasts around three months.

4. Examination

Examination starts the day after the close of the Preliminary Meeting and must be completed within six months. The Examining Authority will invite Interested Parties to submit their views, they will hold hearings, and they will carefully consider all the evidence submitted.

Examination is primarily a written process that is focused on written representations, in contrast to a public inquiry, with hearings only being held on selected issues where the Examining Authority deems this necessary.

5. Recommendations and decision

The Examining Authority must prepare a report, including a recommendation on whether to grant or refuse development consent, within three months of the close of the Examination.

The Secretary of State then has a further three-month period in which to consider the recommendation and make the final decision.

6. Post decision

A six-week period follows the decision of the Secretary of State during which any decision may be challenged in the High Court by way of judicial review.

You can find more information about the DCO process on the PINS website at **national-infrastructure-consenting.planninginspectorate.gov.uk/decision-making-process-guide**

09

What happens next

We want to hear your views about the project. This section explains where to find all our consultation materials, details of our community information events, how to participate, and what we'll do with your feedback.

Our consultation runs for 11 weeks, from **28 October 2025** to **11.59pm on 13 January 2026.** There are many ways you can get involved, find out more about the project and provide your feedback on proposals.

Consultation materials

We've produced a range of consultation materials to help you find out more and have your say.

These are available on our consultation website at **thames-sro.co.uk/sesro/statcon2025**, at in-person community information events, and at the deposit locations within the community listed on page 125.

We'll post out printed copies of the brochure and feedback form free of charge (one set per household) on request.

You can also request printed copies of all the consultation documents, although there may be a charge for this, up to a maximum of £200 (including VAT, postage and packing).

We'll consider on a case-by-case basis any requests for alternative formats of consultation materials such as translations into other languages, large print or Braille.

Your feedback

We encourage you to have your say on the project by giving us your written feedback in one of the following ways:

- Fill in the online feedback form, which you can find at the consultation website at thames-sro.co.uk/sesro/statcon2025
- Email our dedicated consultation response email address at SESRO@ipsos.com
- Fill in one of our printed feedback forms and post it free of charge to **FREEPOST SESRO CONSULTATION.** Feedback forms are available to collect from our community information events, from various locations within the community, or by requesting that one is posted to you by the project team. Pre-addressed envelopes are available where there are printed feedback forms. No stamp is needed.
- Write to us free of charge at **FREEPOST SESRO CONSULTATION.**

All responses must be received in writing by **11.59pm on Tuesday 13 January 2026**. Responses received after that date may not be considered. We cannot guarantee acceptance of consultation responses submitted via other channels.

Any personal information submitted to us during statutory consultation will be processed in line with our privacy policy, which can be viewed at thameswater.co.uk/legal/privacy-notice

In-person community information events

We're hosting a series of in-person community information events where you can find out more about the project and ask questions of the project team. Venues may be subject to change at late notice for reasons out of our control. We'll publicise any changes on the consultation website and via other channels.

Event Venue	Date	Time
Didcot Civic Hall Civic Hall, Britwell Road, Didcot OX11 7HN	Monday 10 November 2025	2-8pm
Abingdon Guildhall Guildhall, Abbey Close, Abingdon OX14 3JD	Wednesday 12 November 2025	2-8pm
Sutton Courtenay Village Hall Hobbyhorse Lane, Abingdon OX14 4BB	Saturday 15 November 2025	10-4pm
Marcham Centre Barrow Close, Marcham, Abingdon OX13 6TY	Thursday 20 November 2025	2-8pm
Hanney War Memorial Hall Brookside, East Hanney, Wantage OX12 0JL	Friday 21 November 2025	2-8pm
The Beacon Portway, Wantage OX12 9BX	Wednesday 26 November 2025	2-8pm
Milton Hill House Hotel Steventon, Milton Hill, Abingdon OX13 6AF	Thursday 27 November 2025	2-8pm

Have your say!

Online community information events

We're also hosting two online webinars, which will include a presentation from the project team summarising the proposals, the consultation process and how to respond. Attendees will also have an opportunity to ask questions to the project team.

You can register for these events at thames-sro.co.uk/events

- **Event 1: Tuesday 18 November 1-2pm**
- **Event 2: Monday 24 November 7-8pm**

Deposit locations

Location	Opening times
Abingdon Library The Charter, Abingdon, OX14 3LY	Monday to Wednesday 9am – 7pm Thursday 9am – 1pm Friday 9am – 7pm Saturday 9am – 4.30pm Sunday closed
Wantage Library Stirlings Road, Wantage OX12 7BB	Monday 9am – 8pm Tuesday & Wednesday 9am – 5.30pm Thursday 9am – 1pm Friday 9am – 8pm Saturday 9am – 4.30pm Sunday closed

Information points

Location
GWP District Community Centre 1 Gentian Mews, Didcot, OX11 6GR
Didcot Civic Hall Britwell Road, Didcot, OX11 7JN
St Peters Church 6 Church Lane, Drayton, OX14 4JS
Grove Parish Council Old Mill Hall, School Lane, OX12 7LB
The Marcham Centre Barrow Close, Marcham, OX13 6TY
The Crown Public House Marcham, 1 Packhorse Lane, OX13 6NT
St Martin's & All Angels Church Church Lane, Steventon, OX13 6SN
Steventon Village Hall The Green, OX13 6RR
All Saints Church All Saints Lane, Sutton Courtenay, OX14 4AE
St Blaise Church High Street, Milton, Abingdon, OX14 4EW
St Peter's & St Paul's Church Street, Appleford, Abingdon OX14 4N

Contact our team

We have a dedicated team on hand to help you with any queries you may have. If you have any questions, please get in touch with our engagement team by email or using our freephone line:

Email: info.SESRO@thameswater.co.uk

Freephone line: 0800 033 6677

For more information on our proposals and links to all of our consultation documentation, please visit thames-sro.co.uk/sesro/statcon2025

Once the consultation has closed, we'll carefully analyse all the responses received during the consultation period.

We'll consider your feedback as we update our proposed design and further develop any mitigation measures and we'll provide further updates on the project ahead of our DCO submission.

As part of our DCO application, we'll publish a Consultation Report, explaining how your feedback has helped us to shape our proposals. This report will be available to the public following submission of our DCO application, which we expect to happen in 2026.

This document has been produced to support the autumn/winter 2025 statutory consultation on the SESRO project. The information presented represents the current stage of the project design. It comprises material or data that is set out in draft and may be further refined subject to design development, surveys, stakeholder engagement and feedback from the statutory consultation. Illustrations are indicative only.


verview of the propose ervoir
Marcham
Garford
Steventon
Great Western Main Line Railway

Thames Water

Working with

Affinity Water
Taking care of your water

WATER for LIFE
from Southern Water.