



Working with

AffinityWater



A new reservoir for the South East

Securing a sustainable water supply and creating a lasting legacy for communities and the environment.

June 2024





We are proposing to build a new reservoir in Oxfordshire to make sure we have the vital water resources we need for our health, wellbeing and economic prosperity, and to maintain a thriving natural environment that we can all enjoy. The investment in new water infrastructure can deliver more than a secure water supply, it also provides a unique opportunity to create a lasting legacy for communities and the environment.

In this document we explore some of the potential opportunities which include creating a new landscape with improved wildlife habitat, providing green and blue spaces for leisure and recreation and giving a boost to the local economy.

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Introduction

Water is essential in our day-to-day lives.

Every day we turn on our taps to fill glasses of water, make cups of tea, wash, cook and clean. We rely on water to run our schools, hospitals and businesses – not just ones we usually associate with water, like car washes and hairdressers, but every industry. And we need it to keep the world around us healthy too.

But our water resources are under pressure from the changing climate, and we need to reduce the amount of water we take from some rivers and streams to protect our environment.

We're planning ahead to make sure we have a secure and sustainable water supply for future generations. Our plan includes actions to make the best use of the water we've got. We're installing smart water meters in customers' homes, and repairing and replacing water pipes to reduce the amount of water lost through leakage. We're also investing in new water infrastructure, including our proposal for a new reservoir in Oxfordshire.

Reservoirs are an essential part of a secure water supply system. We take water from rivers in the winter, when flows are at their highest, and store it in reservoirs so it's available when we need it - in times of high water demand and dry periods. Thames Water currently operates 30 raw water storage reservoirs across London and the Thames Valley, including the Queen Elizabeth II Reservoir in Surrey and Farmoor Reservoir in Oxfordshire. Reservoirs provide a reliable water supply for our customers and are also fantastic natural spaces for wildlife and leisure, with walking, cycling and water sports opportunities. To read more about visiting our reservoirs and nature reserves www.thameswater.co.uk



Farmoor reservoir

Planning for the future

The last reservoir built in Thames Water's area was in the 1970s. With a growing population and changing climate, we need to invest in building a new reservoir to ensure we have enough water for our customers when they need it.

The proposed new reservoir in Oxfordshire would be able to supply around 270 million litres of water every day to around 15 million people across the South East. Whilst the principal function of the reservoir is to provide the vital water resources we need, the development of a large new body of water in lowland England provides a unique opportunity to create a new landscape with improved wildlife habitat, green and blue spaces for leisure and recreation, and a boost to the local economy – leaving a genuine legacy for future generations.

The proposed new reservoir would:

- feature new wetlands and habitats, providing a home for wildlife helping to protect and enhance nature
- provide access to new green spaces for everyone to enjoy, with trails for walkers, wheelers, cyclists and horse riders
- promote health and wellbeing, with opportunities for a range of water sports and recreational activities
- create new jobs and apprenticeships for local people and opportunities for local businesses
- be an attractive destination for visitors and tourists, with benefits for the local economy.

We have a design vision for the proposed new reservoir, supported by design principles, which are guiding the development of the project.

Our design vision

We will deliver a reservoir for the South East which will help to protect customers, communities and the environment from drought.

We will provide a safe, sustainable and resilient water supply for future generations whilst delivering new high-quality spaces for nature and recreation, creating a lasting legacy for communities and the environment.

The design vision and design principles have guided the emerging plan for the proposed new reservoir, called the interim master plan. This sets out the overall layout and features of the site. An illustration and description of the interim master plan is shown on the following page.

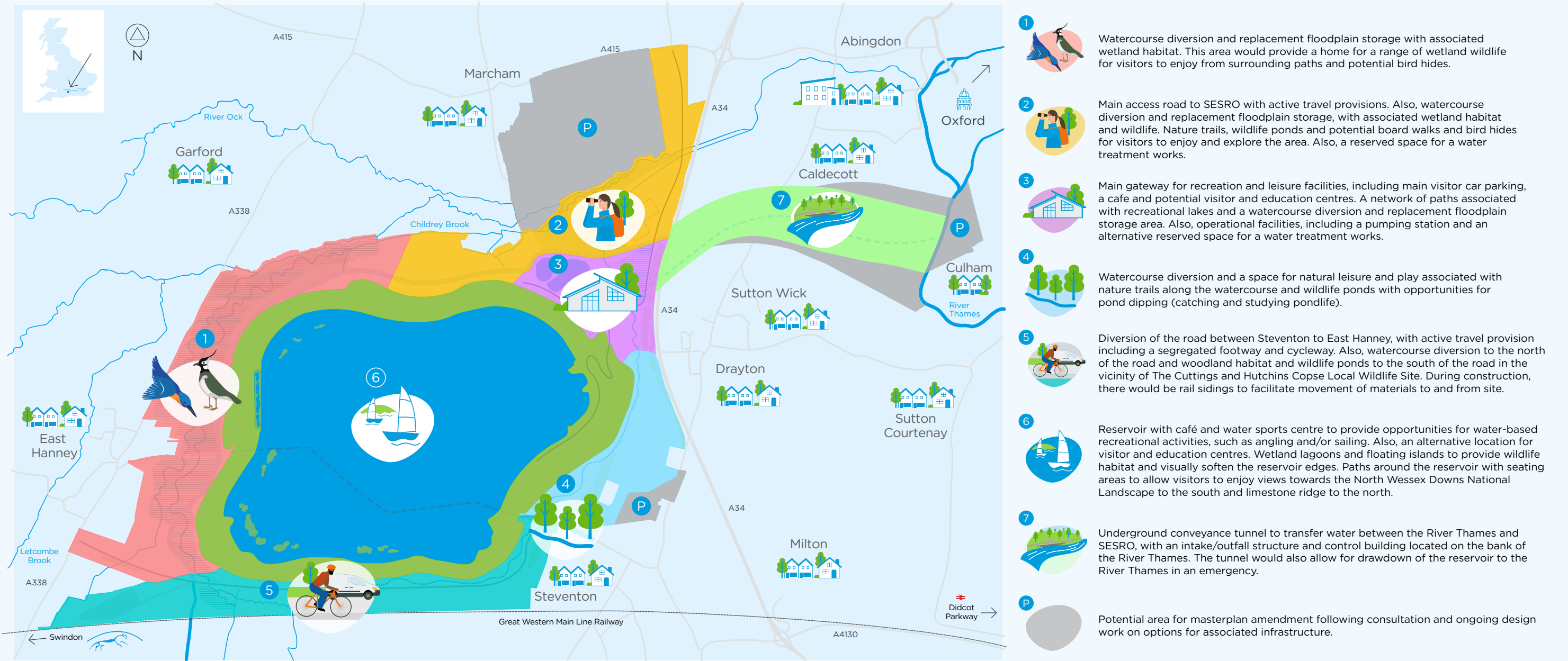
We're holding a public consultation on the emerging design options and the interim master plan. Find out more by visiting our website



thames-sro.co.uk/SESRO



Here’s an illustration of our emerging plan for the proposed reservoir, this is referred to as the interim master plan. The illustration shows the seven zones of the reservoir and describes the main features of each of the zones. Part of developing the interim master plan has been sharing our early work with stakeholders and representatives of the local community, whose knowledge and understanding of the area has been valuable in creating this initial plan. We have included a wide range of benefits for the environment and the community in the interim master plan. Go to our website thames-sro.co.uk/SESRO to read more.



Protecting and enhancing nature

The reservoir would sit in an area of around 17 km², that's the equivalent of around 2,400 football pitches. Within this area there are opportunities to create extensive and lasting new wetland areas and other habitats for a wide range of wildlife from wading bird species to other notable species including water vole and otters. The new habitats would be sensitively designed to be part of the landscape and as well as a network of footpaths to explore the site, there could also be bird watching facilities, with hides, for nature lovers to visit and enjoy.

The [interim master plan](#) shows some of the potential environmental features we could include in the design of the proposed reservoir.

We've shared our proposals with environmental regulators and organisations, such as the Freshwater Habitats Trust, to get their thoughts on the opportunities for the environment. Their feedback was clear - we need to be visionary and ambitious to maximise the opportunities for the environment and biodiversity.



Master plan diagram

- 1 Watercourse realignment and diversion would result in 18 km of watercourse enhancement
- 2 Wetland habitat mosaic for a range of wildlife, with surrounding paths and potential bird hides
- 3 Floating islands to provide wildlife habitat and contribute to visual amenity of the reservoir
- 4 Wetland lagoons to provide wildlife habitat and visually soften the reservoir edges
- 5 Nature trails through areas with wet woodland, wildlife ponds, scrapes and pools
- 6 Ponds for great crested newt habitat
- 7 New woodland along the A34 and new species-rich native hedgerows with trees and enhancement of existing hedgerows
- 8 Reservoir embankment with pasture for sheep grazing, subdivided by hedgerows, woodland belts and copses for habitat connectivity and landscape integration
- 9 Woodland areas, with glades, to the north of the railway and the area near The Cuttings and Hutchins Copse Local Wildlife Site
- 10 New woodland near Steventon community woodland
- 11 Species-rich native hedgerows with trees along the proposed main access road and the Steventon to East Hanney road diversion

Here's a summary of what we heard from the environmental community

"Design a naturalistic landscape that blends into its surroundings".



"Create new wetland areas providing fantastic opportunities for biodiversity".



"Provide good quality replacement hedgerows".



"Protect existing woodland, where practicable, and create new woodland both within the site and beyond".



"Provide dedicated wildlife areas for species that are easily disturbed".



"Balance environmental ambitions and protection of wildlife, with public access and recreation".



"Provide diverse, high quality terrestrial and aquatic habitats integrated into the wider habitat network".



"Work in partnership to achieve the best outcomes for nature".



"Provide a centre for environmental education and learning".



There are some amazing places and partnerships which are already delivering benefits for our environment and wildlife, and these have given us inspiration for the design and development of the proposed reservoir.

Walthamstow Wetlands

Walthamstow Wetlands is a fully operational Thames Water reservoir site which is the main source of water supply for 3.5 million people. Working in partnership with the London Borough of Waltham Forest and the London Wildlife Trust, the site was opened to the public in 2017. It is the largest urban wetland reserve in Europe. It has 13 miles of paths to explore and is home to a variety of birdlife, including rare wildfowl, peregrine falcons, and several species of bats and amphibians.

Working with Freshwater Habitats Trust at Farmoor Reservoir

Farmoor Reservoir provides water for Oxfordshire and beyond. With thousands of visitors each year, Farmoor is more than just a reservoir, it’s a destination for walkers, anglers and sailors as well as being home to three wetland nature reserves - Pinkhill, Shrike and Buckthorn Meadows. Thames Water has been working closely with conservation charity, Freshwater Habitats Trust, to create a "mosaic" of wildlife-rich freshwater habitats on Pinkhill Meadow, these are now some of the very best in the county, providing a home for otters, amphibians, dragonflies, water beetles, and rare and threatened plants.

Freshwater Habitats Trust has a vision to work with partners and volunteers to reverse the decline of freshwater biodiversity. It is building a national network of wilder, cleaner, connected freshwaters, and the Trust is working across Oxfordshire and Buckinghamshire to restore some of the counties’ richest wildlife habitats, from alkaline fens and ponds to historic floodplains and species-rich wet grassland.

"If the Development Consent Order was approved, the new freshwater and wetland habitats created as part of the proposed new reservoir could potentially provide a substantial increase in freshwater biodiversity for the Ock catchment."

Freshwater Habitats Trust



A view across Walthamstow Wetlands

Our approach

Over the next few years, we'll be undertaking ecological surveys and assessments to better understand the current environment within the proposed reservoir site. This includes assessing the diversity and abundance of different species, to ensure we reduce the impacts of any adverse effects and work to protect, conserve and enhance the environment. We want to work collaboratively with environmental organisations and charities, sharing knowledge and information and ensuring a coordinated approach which delivers the most for nature across Oxfordshire and the wider region.

Our commitments to you – we will:



Create new wetland habitats, which will help increase biodiversity and capture carbon.



Carry out an Environmental Impact Assessment and develop a Code of Construction Practice that shows how we have addressed the concerns of the local communities.

To see a full list of our community commitments go to thames-sro.co.uk/SESRO



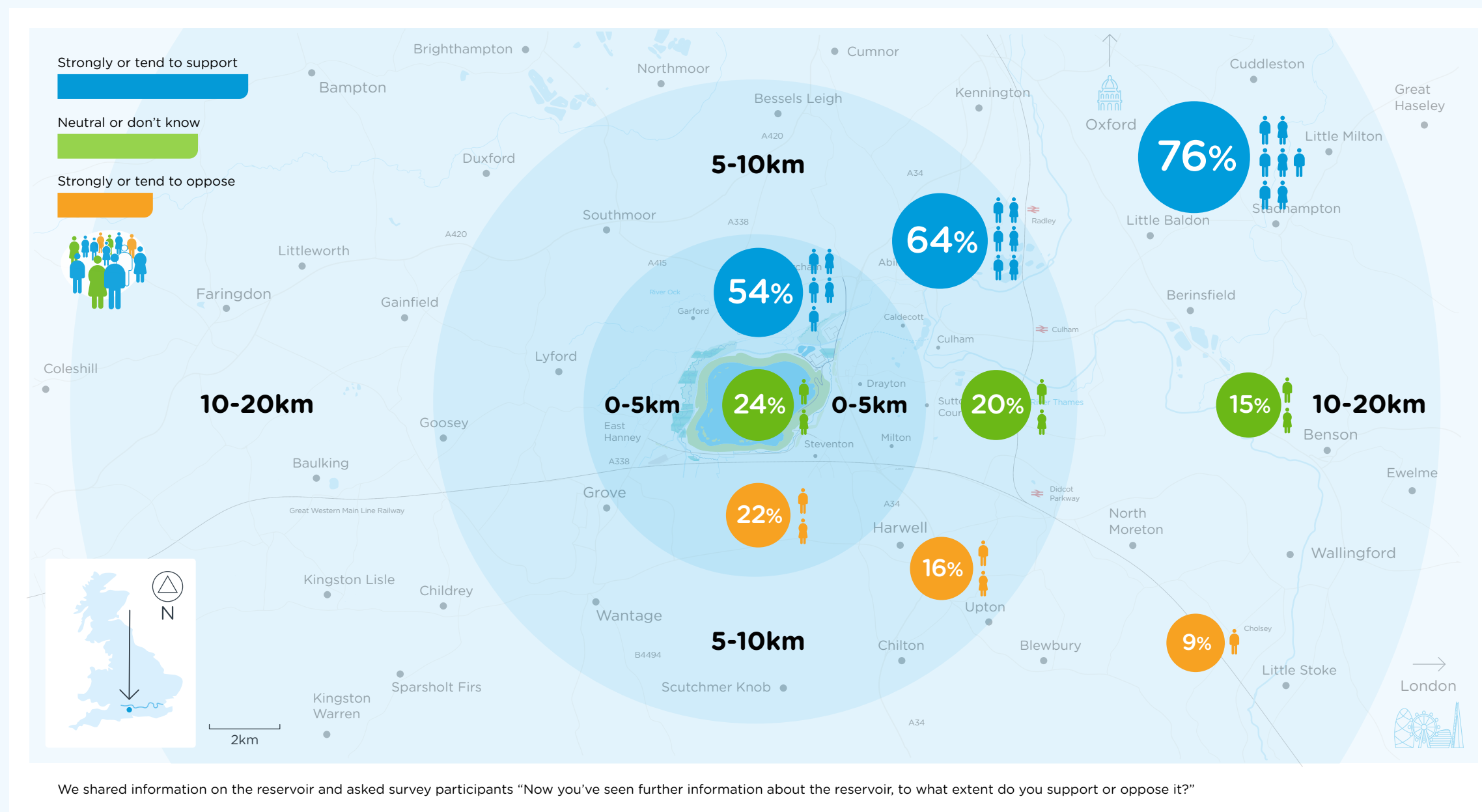
Creating new places for people to enjoy

In addition to its core purpose of storing and supplying water, the proposed new reservoir has the potential to provide a fantastic new place for people to visit and enjoy.

The reservoir could provide accessible new green and blue spaces for leisure and recreation, and opportunities for art and culture, whilst recognising the heritage and landscape character of the area.

We asked over 1,000 people, who live in close proximity to the proposed reservoir site, and from across the wider South East, their attitudes to the proposed reservoir and what activities and facilities they would like to see at the site.

Overall, the majority of people supported the development of the proposed reservoir and we have considered their feedback in the emerging design. However, there are also some people who do not support the development of the proposed reservoir, with around a fifth of people who live in close proximity to the site expressing opposition. We understand our proposals will have an effect on landowners, homeowners and communities and we are committed to listen and address their concerns, as far as we are able.

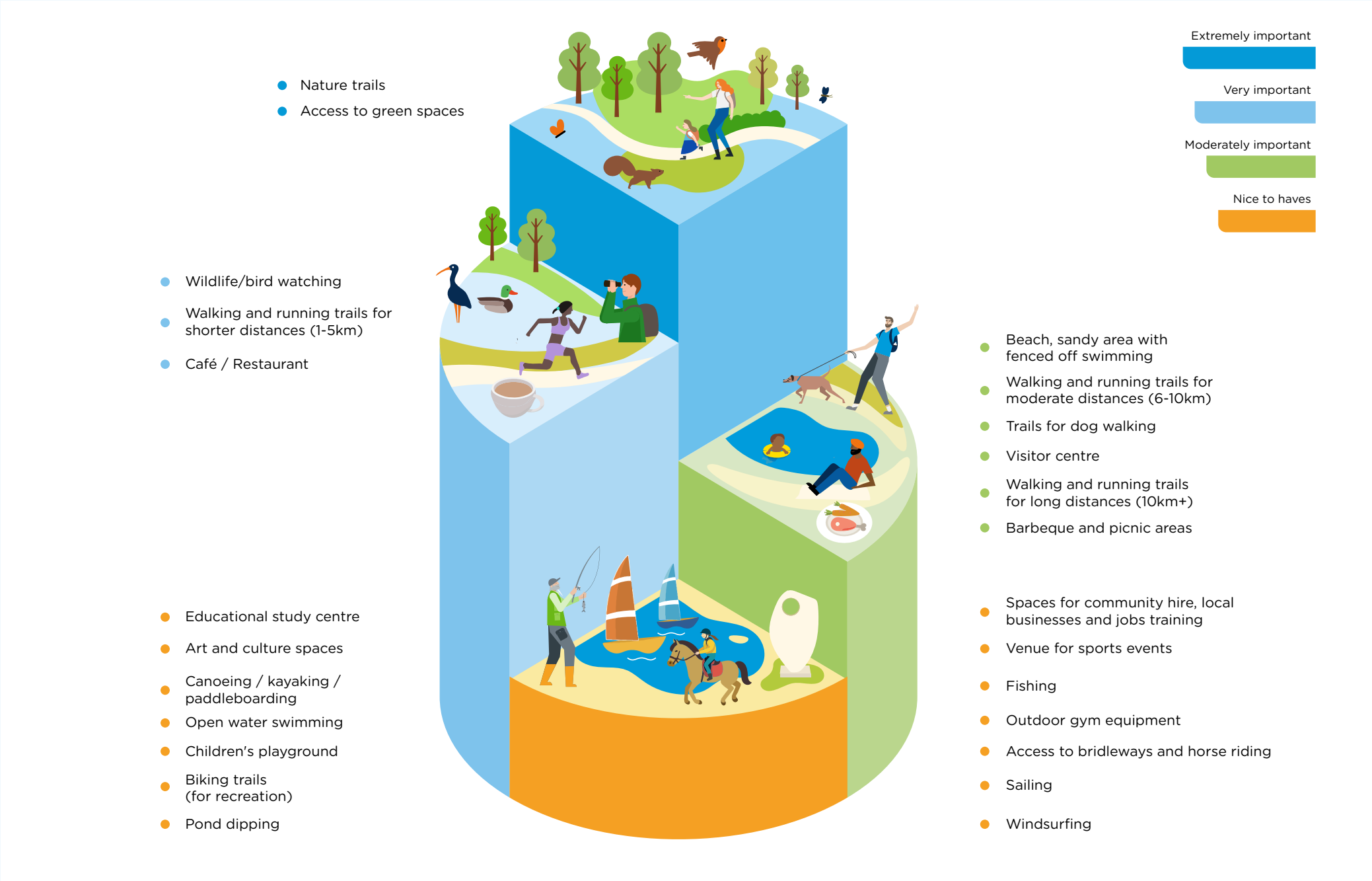


People told us that they are keen for the proposed reservoir site to include a wide range of activities. This included places to enjoy nature, relax with family, opportunities for wildlife and bird watching, walking and running trails, and a cafe and restaurant facilities.

Overall, people were most excited by the prospect of nature trails and access to green spaces, reflecting the broad desire for the reservoir to be open for people to enjoy with access to nature. We have reflected this feedback in our initial designs.

The feedback we gathered aligns with some of the strategic priorities published by Oxfordshire County Council and the Vale of White Horse District Council. Their long term plans set out the importance of improving the local environment and giving access to nature and green spaces, which is important for people's health and wellbeing.

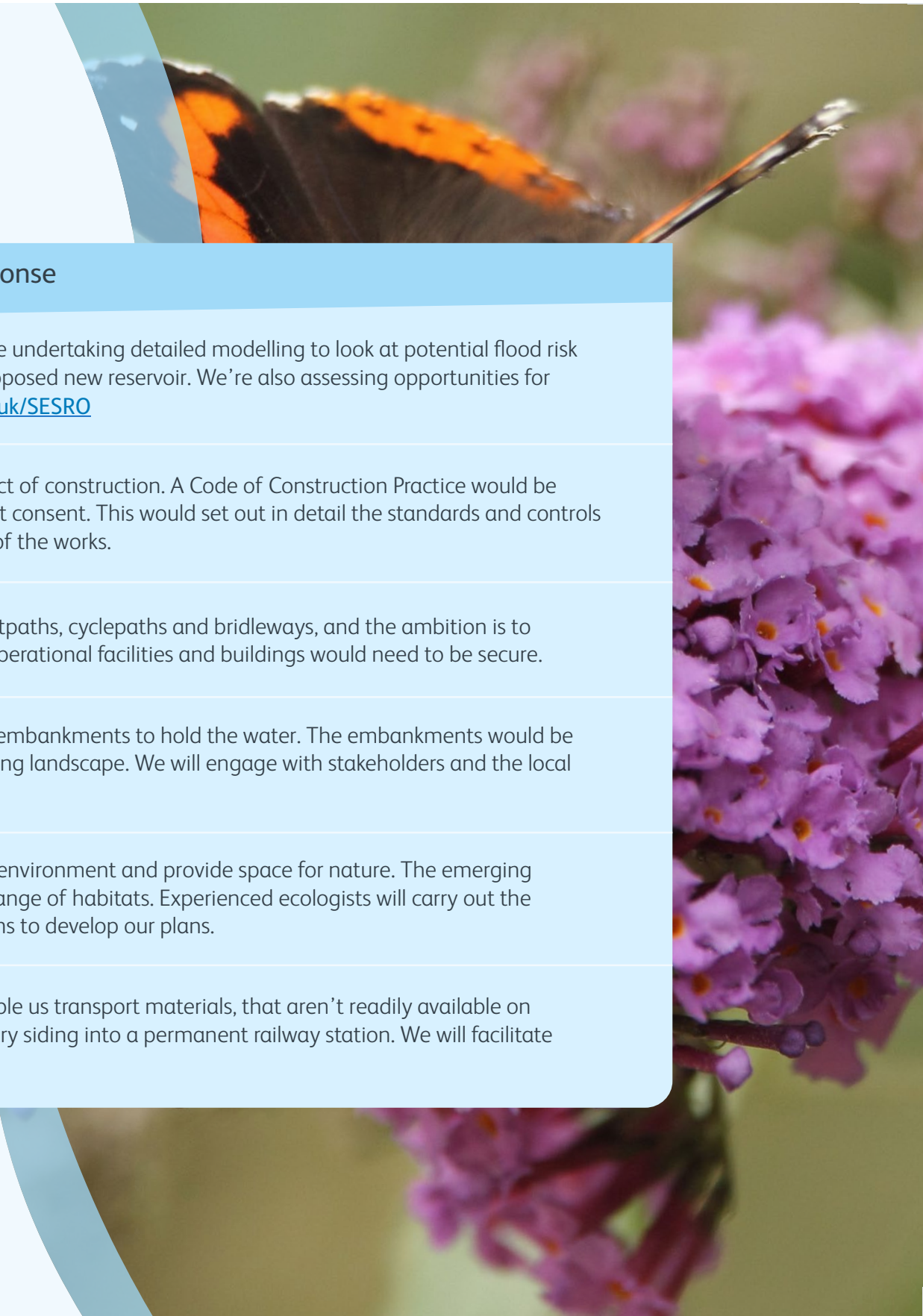
We will continue to work with local people and other stakeholders to design a reservoir that local communities can be proud of, and that will encourage people to visit and enjoy its surroundings.





We held a workshop for representatives of parish councils in the locality of the proposed reservoir site to listen to their feedback. Here are some of the main points that were raised, and our response to them.

Local community feedback	Our response
The reservoir would increase local flooding, in an area which already suffers from flooding.	We know that flooding is a pre-existing issue in the local area. We’re undertaking detailed modelling to look at potential flood risk and how we can ensure the risk isn’t increased as a result of the proposed new reservoir. We’re also assessing opportunities for reducing flood risk. To read more on this topic go to thames-sro.co.uk/SESRO
The local communities would suffer nuisance during the construction, with particular concern about the pressure on the local road network and traffic congestion.	We understand that local communities are worried about the impact of construction. A Code of Construction Practice would be developed and submitted alongside an application for development consent. This would set out in detail the standards and controls that the contractors must adopt to manage the potential impacts of the works.
There would be no public access to the reservoir site.	This is not correct. There would be public access to the site with footpaths, cyclepaths and bridleways, and the ambition is to facilitate a range of sports and leisure facilities at the site. On-site operational facilities and buildings would need to be secure.
The embankments are too high, not fitting with the local setting, and visually unattractive.	The reservoir would be sited on low lying land and therefore needs embankments to hold the water. The embankments would be gently sloping and landscaped to integrate them into the surrounding landscape. We will engage with stakeholders and the local community as we develop the design of the reservoir.
The local environment would be destroyed.	The reservoir provides a fantastic opportunity to enhance the local environment and provide space for nature. The emerging design includes the creation of new wetlands areas, and a diverse range of habitats. Experienced ecologists will carry out the assessments and we will work with local environmental organisations to develop our plans.
Would there be the opportunity to develop a new railway station close to Wantage and Grove?	Our interim master plan includes a temporary railway siding to enable us transport materials, that aren’t readily available on site, by rail. There may be an opportunity to repurpose the temporary siding into a permanent railway station. We will facilitate discussions on this but it does not form part of the project.





As well as seeking the views of local people, we also held workshops with local organisations and groups representing the leisure and recreation sectors.

The workshops focused on water based recreation and land based recreation. We shared the interim master plan and sought feedback on the potential opportunities and constraints that should be considered. The discussion raised a long list of potential opportunities for us to consider as the design of the proposed reservoir is developed.

When considering water based recreation we spoke to a range of organisations including representatives of the sailing, angling, canoeing, and rowing communities. Here's a summary of what we heard in relation to water-based access and recreation - which we have referred to as blue spaces.

We want to continue these conversations and work collaboratively to ensure that the reservoir would meet its fullest potential.

Blue spaces





When considering land based access and recreation we spoke to a wide range of organisations including representatives of Girl Guiding, the horse riding and cycling communities as well as people interested in conserving the heritage of the area and the restoration of the Wilts and Berks Canal.

Here's a summary of what we heard in relation to land-based access and recreation opportunities at the proposed site - referred to as green spaces.

The feedback we have received so far has been really helpful in shaping the emerging master plan and we want to build on these conversations, to ensure we develop a design that everyone values, while crucially keeping taps running.

Green spaces

"Make the site open and accessible for all".

"Design an attractive landscape which is sensitive to the local surroundings".

"Design a high quality public rights of way or permissive paths network".

"Plan a well-connected cycle network for commuters and leisure".

"Respect and preserve local heritage".

"Futureproof recognising the location and scale of new housing development in the local area".

"Provide footpaths and trails of varying lengths, with good signage, benches and toilets".

"Develop a creative and adaptable plan for car parks".

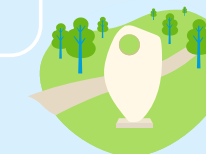
"Work with the Wilts & Berks Canal Trust to help to realise the vision to restore the canal".

"Provide space for art and culture and events".

"Protect and enhance access for horse riders".

"Design for harmony across all users ensuring a good visitor experience".

"Plan for maintenance, which is as important as the initial construction provision".



As well as listening to local feedback, we’re also seeking inspiration from other local places which are well used and highly valued by local people to give inspiration for the design and development of the proposed reservoir.

There are many facets to the design and we want to work collaboratively to develop the design to meet the preferences and needs of the local community now and in the future.

Our commitments to you – we will:



Work with the community to develop a design that delivers opportunities for accessible recreation, leisure and education.



Work with local groups to incorporate activities such as sailing, fishing, bird watching, paddle/wind sports, running, cycling and trail walking.

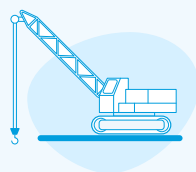
To see a full list of our community commitments go to thames-sro.co.uk/SESRO



Supporting the economy

A secure and sustainable water supply is essential for a well-functioning society and economy, and studies have shown that not having enough water to go around would cost London's economy alone around £500 million each day.

Beyond this, the investment in a new reservoir has the potential to bring multi-layered economic benefits.



We estimate that there would be more than 1,000 direct jobs during the construction, with new opportunities for apprentices and graduates and the chance to equip people with new, transferable skills.



Local small and medium sized businesses would have opportunities to join the supply chain, and there would be substantial contracts awarded across the country for materials and services.



As well as local people enjoying the site, we envisage that people from across the South East would visit the site for sport, recreation and days out, bringing economic value to the area.



The reservoir would be an attractive place with a range of new facilities, an asset to the local area supporting local government with ambitions for economic growth in the area.



An example of a UK infrastructure project which has successfully delivered significant value to local communities and the wider economy is the Thames Tideway Tunnel. This £4.5bn project is being delivered by an independent company called Tideway, which is responsible for funding, designing, building, commissioning and maintaining the new Tunnel.

Thames Tideway Tunnel

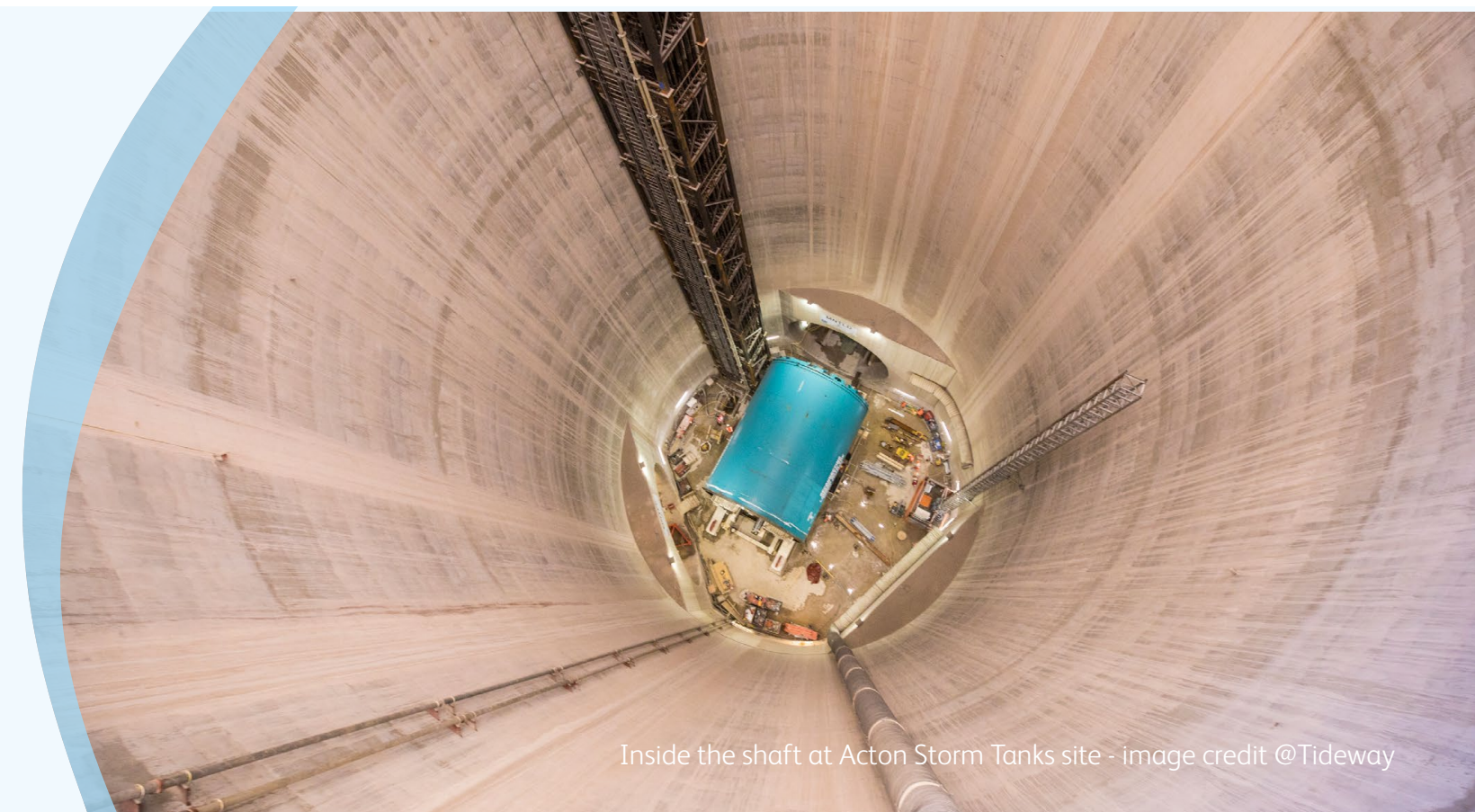
London relies on a Victorian sewer system built for a population less than half its current size. As a result, millions of tonnes of raw sewage spill, untreated, into the River Thames each year. The purpose of the Thames Tideway Tunnel, also known as the "super sewer", is to intercept, store and ultimately transfer sewage waste away from the river, cleaning up the river and meeting the needs of modern-day London. The tunnel is 25 km long and runs from Acton in West London to Stratford in East London. Construction started in 2016 and the tunnel will be fully operational in 2025.

A key feature of Tideway's success has been the innovative funding model, which encourages long-term private sector investment in infrastructure. The cost of the project is being paid for by Thames Water's 15 million wastewater customers through their bills. This is proving to be a model that delivers major benefits and is one of the key legacies of Tideway for future UK infrastructure.

Beyond the project's core purpose and environmental benefit to clean up the River Thames, Tideway has also brought significant wider value to local communities and the economy through:

- development of three acres of new public realm along the river at seven different locations – the first new land in London for generations
- support to almost 50,000 people and more than 500 organisations through community partnerships, volunteering and charitable donations
- creation of 4,000 new jobs during construction
- investment in future talent, with one in 30 of the new jobs being apprenticeships
- champion to careers in construction through an extensive STEM programme, which supported nearly 100,000 young people
- contribution to the UK economy with around 95 per cent of the spend focused on the UK as well as help to local businesses to grow their skills.

To read more about Thames Tideway Tunnel visit www.tideway.london



Inside the shaft at Acton Storm Tanks site - image credit @Tideway



Putney Embankment - image credit @Tideway

Taking forward wider benefits

The primary purpose of the proposed new reservoir is to help safeguard water supply and reduce the risk of us running dry during prolonged periods of drought.

But we want to deliver more than this. We want to realise the opportunities to provide additional value to the environment and society.

This ambition is framed by our legal duty to consider conservation, access and recreation. Careful attention has been paid to this in the initial work on the reservoir design. In addition, there are national and local land use planning policies covering a range of topics such as protecting and enhancing biodiversity that we've also considered and integrated into the initial design. We are ambitious in our vision for public value however, it is important that these opportunities are appropriate to the local area and affordable, as we have a responsibility to spend our customers' money wisely.

There may be some opportunities which could be considered to be beyond the scope of the project, and wouldn't be appropriate for water customers to pay for, even if there is appetite for their development. One example is the development of a new permanent railway station near Grove. In these instances, we will try to work collaboratively with partners to facilitate the exploration of these opportunities to develop a business case or promotion by other organisations.

We hope to forge partnerships with a range of organisations, such as conservation groups, educational institutions and community groups. By leveraging their expertise, resources and networks we can enhance the effectiveness and sustainability of the lasting legacy benefits for the region.



Next steps

This document describes our initial work on the potential opportunities that the proposed reservoir can bring for the environment, local communities and the local economy. We want to work collaboratively to continue to develop these ideas.

We are seeking feedback on the interim master plan as part of our non-statutory public consultation during summer 2024, as well as other elements of the project, to ensure everyone has the opportunity to participate and share their views at a formative stage of the project design. There's lots of information about our current proposals on our website thames-sro.co.uk/SESRO as well as an online survey for you to tell us what you think.

We'll widen the conversations we've been having on creating legacy opportunities and look to build partnerships with organisations who have the expertise, resources and networks to facilitate these opportunities.

This is a once in a lifetime opportunity, we want to work together to design the new reservoir for local communities and future generations.



Find out more by:



visiting thames-sro.co.uk/SESRO



emailing us at info.SESRO@thameswater.co.uk



It's everyone's water