



**Canal &  
River Trust**

Making life better by water

# Transforming places and enriching lives

Canal & River Trust Impact Report  
2021-23

2024



[canalrivertrust.org.uk](https://canalrivertrust.org.uk)



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# Welcome to our Impact Report

Canal & River Trust is the charity that cares for and brings to life 2,000 miles of canals, river navigations, docks and reservoirs across England & Wales.

We believe our network of canals, with their towpaths and all their associated structures and habitats has the power to make a positive difference to millions of people's lives; supported by evidence that spending time by water can make us all healthier and happier.

As a society we are facing a number of challenges – climate change, biodiversity decline, water shortages, inactivity and loneliness, to name just a few.

Through our research, and what we see every day, we know that canals in our towns and cities have the potential to transform communities and help address these societal challenges.

From providing local free spaces for people to exercise, connect with nature and improve their mental health, to green traffic-free corridors for active travel, nature recovery and wildlife migration, our canals are bringing substantial, widespread benefits to society, supporting jobs and local economies, playing an important role in the nation's water and utilities infrastructure, and even delivering new sources of renewable energy.

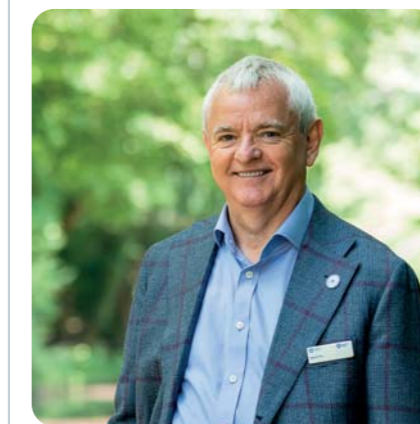
Just as they were the catalyst for the Industrial Revolution, our canals and other waterspaces can help to shape a positive future for us all. We

want to build their resilience and unlock their full potential to help communities prosper and mitigate the effects of climate change and biodiversity decline.

This depends upon securing the long-term support and funding that our ageing network needs if it is to thrive.

This Impact Report shines a light on the scale and breadth of the work the Trust is doing so that the canal network can benefit us today and for future generations.

We hope this report will lead to more opportunities to build partnerships and grow support, so that together we can deliver our vision of canals as sustainable, living waterways that transform places and enrich lives.



**David Orr CBE**  
Chair



**Richard Parry**  
Chief Executive

## Network map



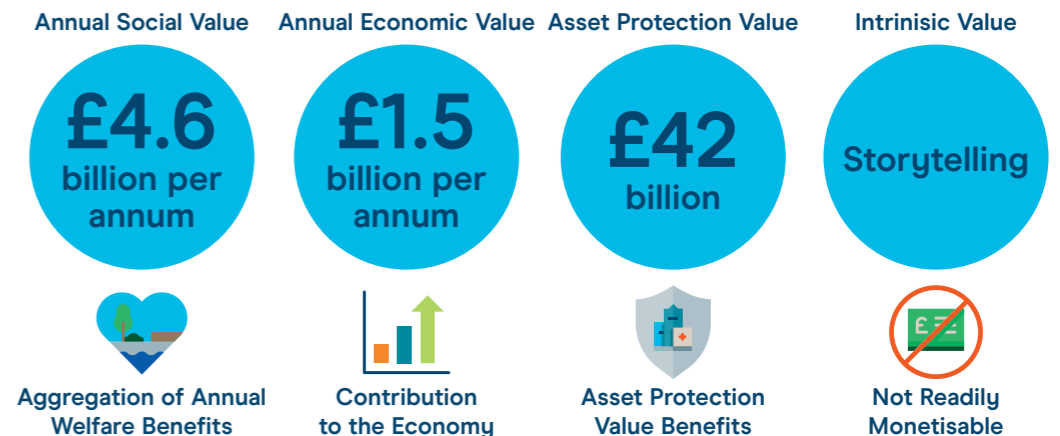
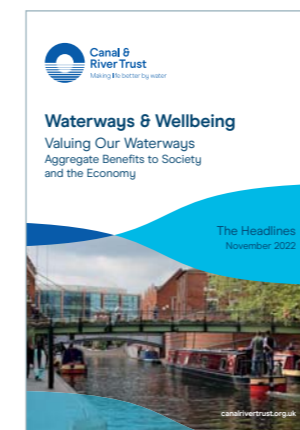
# Purpose and scope of the report

In November 2022, Canal & River Trust published 'Valuing Our Waterways – Aggregate Benefits to Society and the Economy' setting out the headline findings from the Canal & River Trust's study on understanding the social value and economic impact of our canals, river navigations, docks and reservoirs by calculating the aggregate benefits delivered by our waterway to society and the economy.

This impact report seeks to bring to life the stories and testimonies, partnerships and projects that sit behind the monetary values set out in the November 2022 report. It showcases how individuals and communities are benefitting from using and engaging with our network of canals, river navigations, docks and reservoirs in different ways.

To demonstrate the full breadth of societal benefits being delivered and the richness added to people's lives by our network, we have grouped the case studies and stories under six themes.

 Health, Wellbeing & Happiness	 Engaged People & Cohesive Communities	 Learning & Enhancing Skills
 Prosperous & Connected Places	 Green & Blue Futures	 Cultural & Environmental Assets







# ‘Walking on Water’

A poem by Cara Thompson

Once upon a time, in a kingdom not so far away,  
just a hop from Castle Rock  
and twenty skips beyond the caves,  
lies the city where people walked on water.

Before the age of bricks and mortar,  
these liquid highways roamed,  
sloshed their foam through every hillside,  
licked the sides of every home.

Pulsing through the county’s heart  
like a sparkling silver vein.  
Every man, woman, and child  
had known its value and its name.

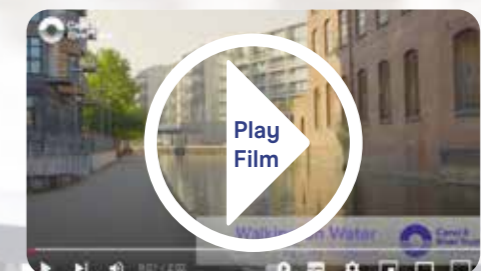
Many years passed by,  
soon came the age of bricks and mortar.  
The city grew, and many soon  
forgot the age of water.

But if you listen closely,  
beneath the babble of the town,  
you’ll hear the ancient hum  
of the Nottingham Canal.

Cast your eye between these towpaths,  
peak between the concrete towers,  
you will hear these turquoise corridors  
reminding you they’re ours.

That no matter how we shift and change,  
caught in the tides of life,  
they will keep a steady course for us  
while hidden in plain sight.

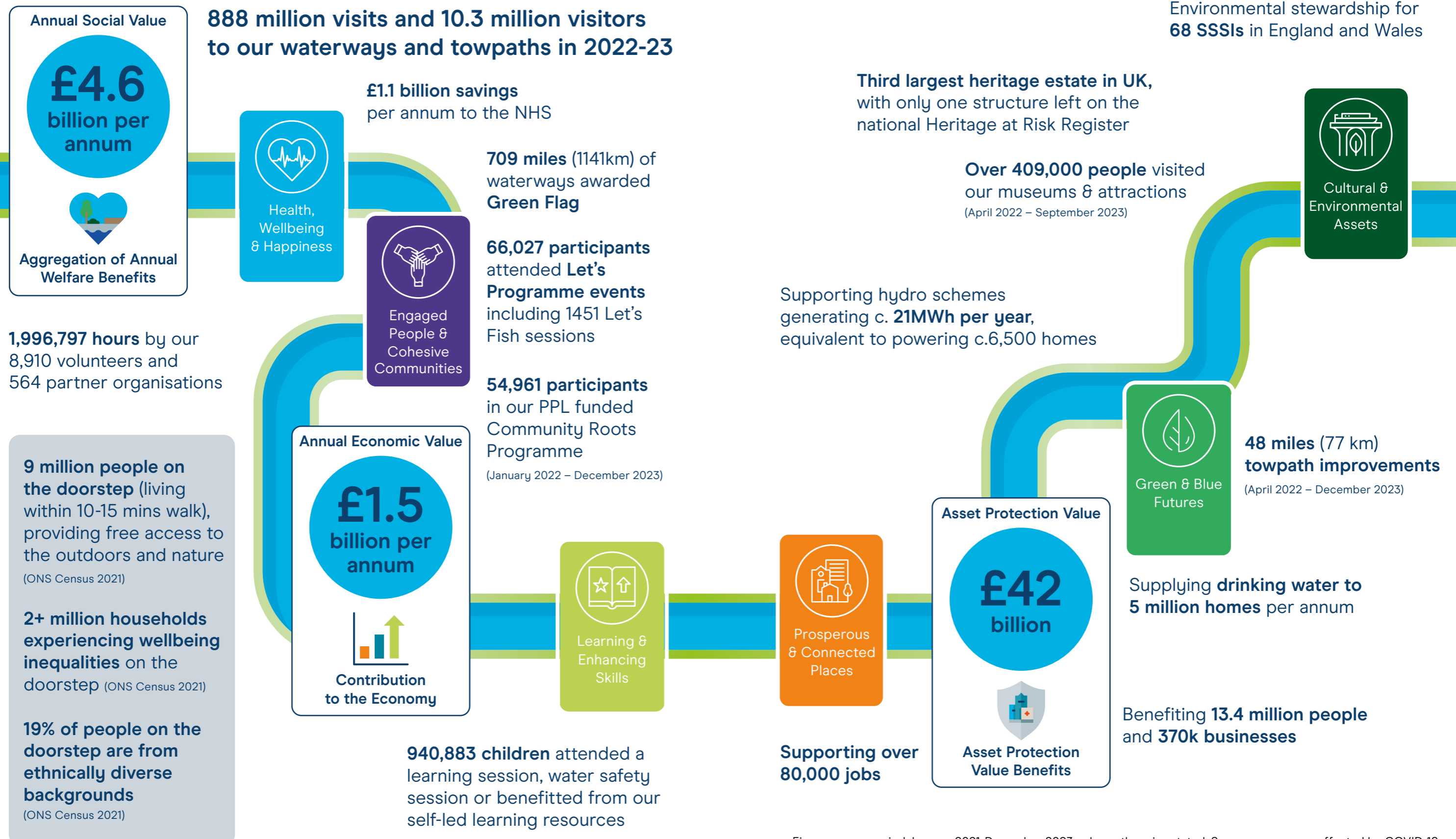
So next time you’re feeling lost,  
and find your strength begins to falter,  
cast your eye to the canals  
and know you too can walk on water.



Watch Cara read her poem here:  
[https://www.youtube.com/watch?v=YxGUWNnZu\\_4](https://www.youtube.com/watch?v=YxGUWNnZu_4)



# Impact highlights 2021-23



Figures cover period January 2021-December 2023 unless otherwise stated. Some programmes affected by COVID-19.



# Introducing Canal & River Trust *Who we are & what we do*

We are the charity that looks after and brings to life the nation's network of canals, river navigations, docks and reservoirs.

Canal & River Trust (the Trust) is a registered charity, formed in 2012 to care for 3,219 kilometres (2,000 miles) of working canals, river navigations, docks and reservoirs across England and Wales.

*Our vision – our canals are living waterways that transform places and enrich lives.*

As 'living waterways', our 250-year-old canal network provides vital habitats for wildlife and essential open spaces and routes for people and boats, with towpaths available for everyone, every day. Our canal network brings character and a connection to a unique living heritage, providing a focus for urban regeneration and rural prosperity. Our canal network is in the heart of many of our towns and cities. It helps local communities, businesses and the environment to thrive and be sustainable. Our canals, other waterways and waterspaces connect us with nature, with each other, with our past and our future. Being by and on water helps us to live happier and healthier lives.

We believe that life is better by and on water and that our network of canals, other waterways and waterspaces improve the wellbeing of individuals and communities, places and the economy as well as the planet.

**Our purpose is to achieve a sustainable future for our network of canals, keeping them open and alive; making them resilient and safe; and maximising their value for people, nature and the economy.**



**The Trust is a UK success story.** Since 2012 we have established ourselves as an effective custodian of this network and are delivering on our charitable objectives, broadening the reach of these canals, other waterways and waterspaces, growing support and generating income.

This extensive network passes through some of the most heavily populated, and most economically disadvantaged communities in England and Wales, providing accessible green and blue space on the doorstep, where it is needed most.

We have established successful partnerships with national bodies, local authorities, stakeholders, communities, and businesses across the network. The annual social value being generated by our network and activities is £4.6 billion including £1.1 billion cost savings to NHS derived from active use of the waterways and the towpaths. The annual economic value, boating and wider water-based tourism expenditure generates over £1.5 billion worth of Gross Value Added (GVA) with more than 80,000 jobs being directly or indirectly dependent upon our network, supporting the visitor economy and marine sector.



## PROTECTOR Supporting national infrastructure and public safety

We are a charity that manages significant national infrastructure (including over 10,000 nationally important assets) with open access, on behalf of the nation.

The reservoir dams and canal embankments maintained by the Trust protect many households, businesses and utilities as well as other national infrastructure such as electricity sub-stations, transport infrastructure and schools.

The presence and resilience of this interconnected network is vital to the UK's energy, telecommunications, and water supply and its flood protection.

It has an estimated protection value of £42 billion benefiting 13.4 million people and 370k businesses as well as supplying enough water for approximately 5 million people.

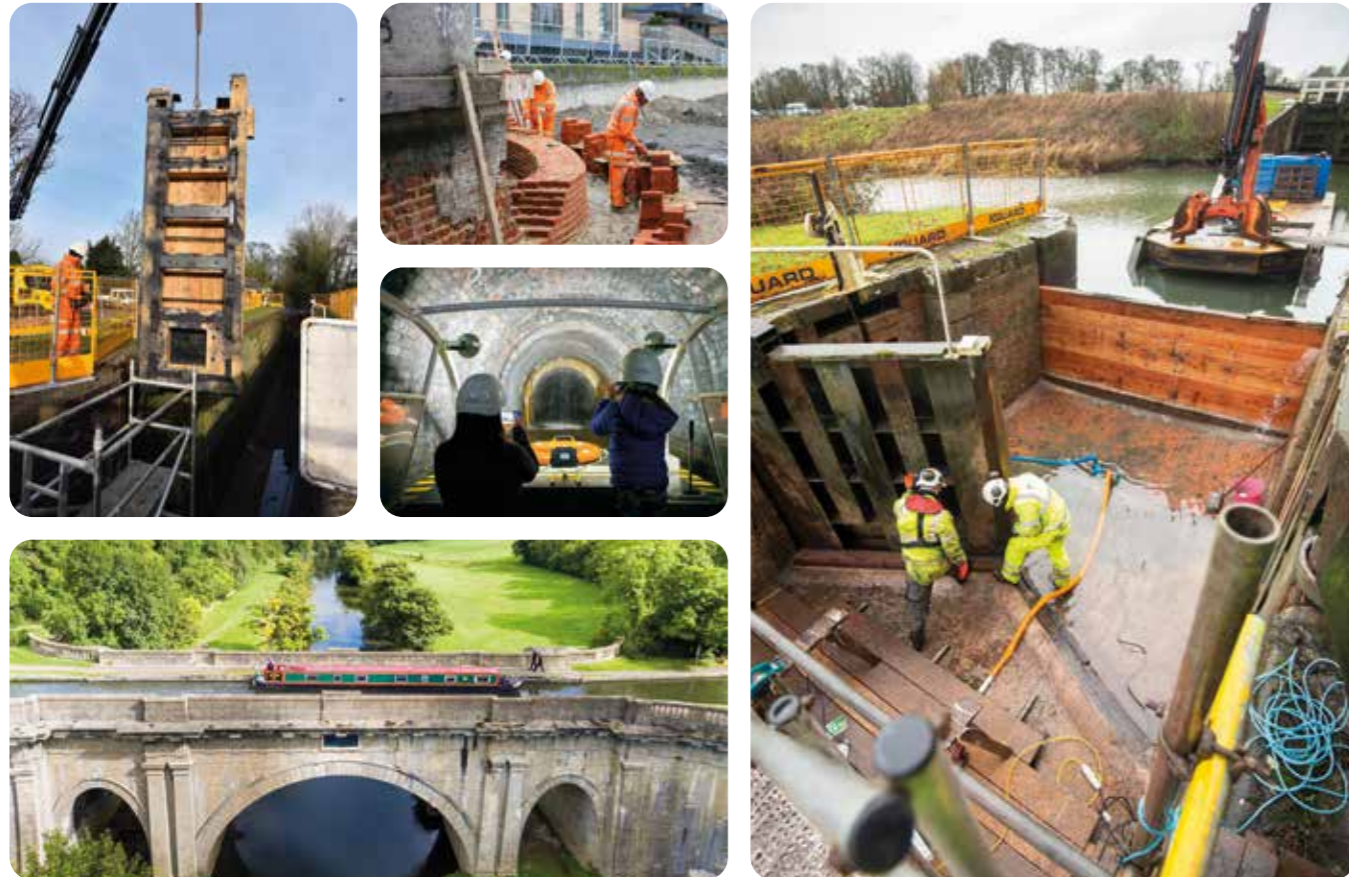
**Estimated protection value of £42 billion benefiting 13.4 million people and 370k businesses.**





### Caring for our canal network

Investing in the 200-year-old assets so they are resilient and safe to use



### Means people can enjoy more time by and on water...



## PROVIDER

Providing free & accessible urban blue-green space on the doorstep of 9 million+ people

Our canals, river navigations, docks and reservoirs provide free and accessible urban blue-green space 'on the doorstep' for 9 million+ people who live within 10-15 minutes' walk (1km) of one of these waterways. Within this population, more than 60% of households (over 2 million households) experience wellbeing inequalities and 19% of residents are from ethnically diverse backgrounds. 50% of the total population of England and Wales, nearly 30 million people, live within 5 miles of these urban waterways (based upon ONS statistics).

For communities suffering a deficit of green or blue spaces, poor wellbeing or socioeconomic disadvantage, these waterways provide vital free, and accessible space to use and enjoy on the doorstep.

Users & Visitors to the Trust's Waterways	2019-20	2020-21	2021-22	2022-23
<b>Total Unique Visits</b>	677 million	743 million	786 million	888 million
<b>Number of Unique Visitors</b>	9.2 million	8.3 million	9.1 million	10.3 million

Since 2019 the number of unique visits has grown by over 30%, attracting 10.3 million visitors and 888 million 'unique visits' during 2022/23.

“ It takes you away from the city. Is like an escape, especially in London. Being close to nature, you don't have to go anywhere, like it's right there! ”

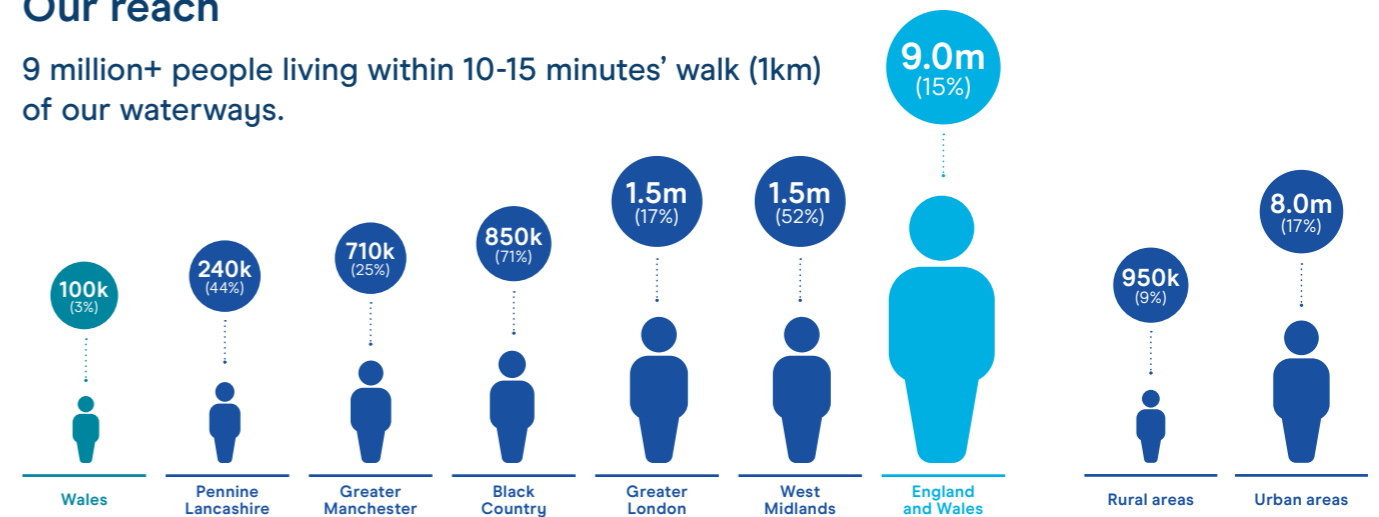
Youth volunteer, 19, London

83% of those who live within 10-15 minutes' walk (1km) agree that their local waterway is important to their area.

## Our Communities

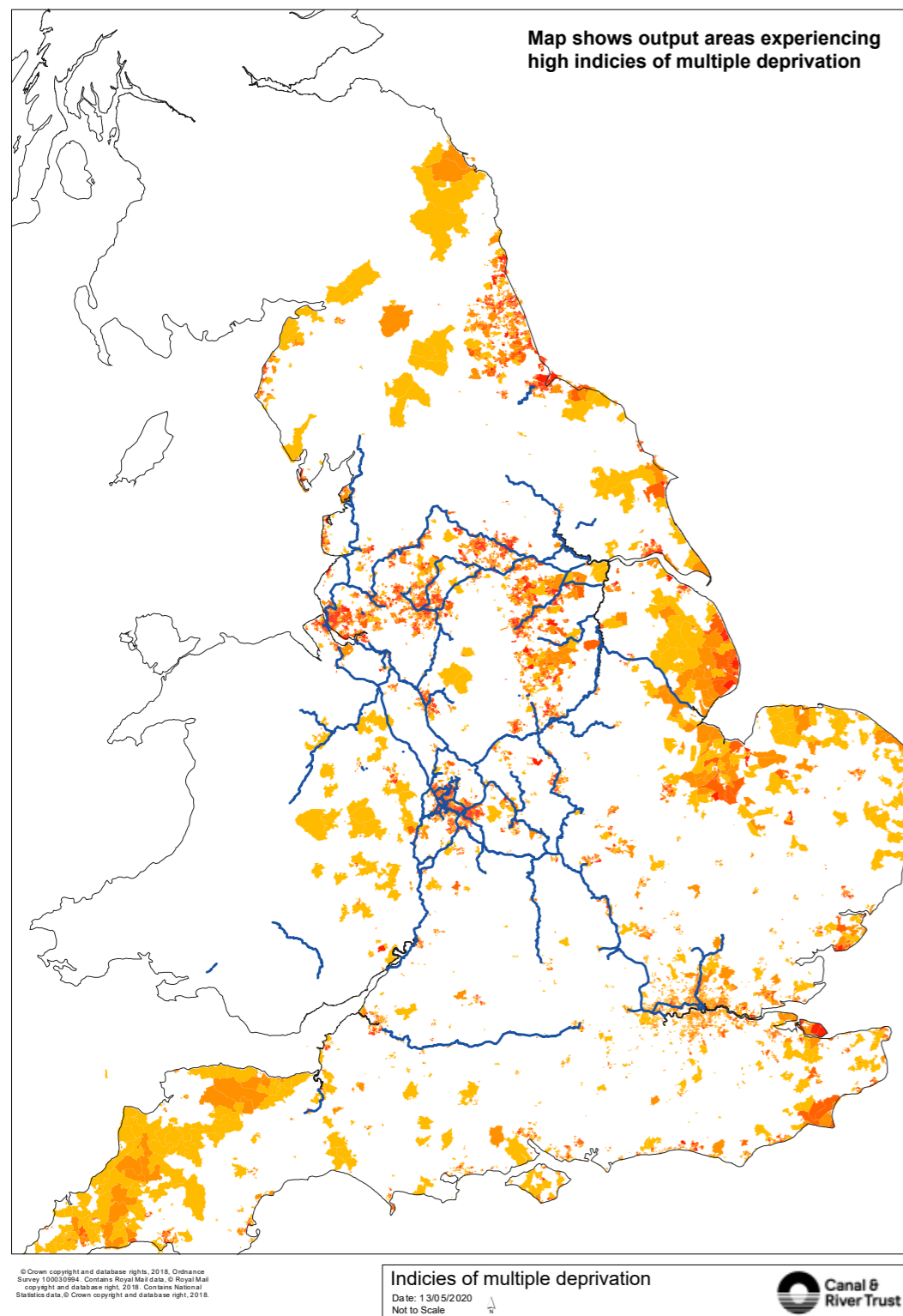
### Our reach

9 million+ people living within 10-15 minutes' walk (1km) of our waterways.





## Map showing potential for our canals to address areas of deprivation



For more information, please go to <https://canalrivertrust.org.uk/valuing-our-waterways>

## Investing in our network for the benefit of the nation

The network of canals, river navigations, docks and reservoirs in our care is among the finest examples of working industrial heritage in the world.

The network includes 82 reservoirs (of which 71 are large raised reservoirs subject to the Reservoirs Act 1975), four inland ports, along with hundreds of bridges, aqueducts, tunnels, embankments and important wildlife sites. Built over two centuries ago to enable the Industrial Revolution, it comprises the third largest collection of listed buildings in the country, 49 scheduled ancient monuments, two museums and five World Heritage Sites.

Our network, managed on behalf of the nation, is one of the UK's largest free-to-access blue spaces, with 10.3 million users that visit regularly, and 888 million unique visits recorded during 2022/23.

There are more powered boats and a wider range of users on the water than ever before. We have seen growth in canoeing, paddle boarding, rowing and other unpowered boating activities.

We invested £199.5 million in our waterways in 2022/23, of which the largest element (£89.6 million) was on day-to-day operations and on stewardship of our waterway infrastructure and the environment.

We rely on our UK Government grant, fees from boat owners and businesses and our investment and commercial income to fund the cost of maintaining our network. Our work is increasingly supported through lottery funds, corporate and local authority partnerships and growing voluntary donations from members of the public.

Our grant agreement with UK Government runs until 2027. We continue to engage with Government on our future funding needs in order to continue our role as their strategic delivery partner, protecting key assets and communities and creating value through the delivery of a wide range of public benefits.

We continue to maximise our income generation, actively manage and grow our endowment and attract charitable income from statutory and voluntary funding, corporate partnerships, individual and legacy giving activities.

For more information, please go to <https://canalrivertrust.org.uk/annual-report-and-accounts>

“An open and well-maintained Canal & River Trust inland waterways network delivers broad benefits aligned to our nation's priorities. In January 2023 the government published our ambitious Environmental Improvement Plan (EIP). The government recognises that the Canal & River Trust has an important role to play in contributing to the EIP, alongside other government priorities.”

Dr Therese Coffey (Former Secretary of State for DEFRA)



# Our network and offer



Owns and maintains **10,000** major infrastructure assets including **1,072** important national infrastructure assets



**871** public road bridges and **2,099** other bridges



**782** major embankments and **827** major cuttings



**1,581** locks, **281** aqueducts, **55** tunnels, **1,954** culverts and **796** weirs (133 on rivers)



Oldest reservoirs in UK, with **71** being large raised reservoirs under the Reservoirs Act



**4** dock complexes, Tees Barrage and **3** harbour authorities



**1**

Electricity, gas, water and fibre optic cables run through public road bridges

**2**

Electricity, gas, water and fibre optic cables run under canal towpaths

**3**

Embankments protect railways, motorways, schools and electricity substations

**Canal & River Trust Important National Infrastructure**

**Key:**

- Own** – (owned by the Trust)
- Host** – (owned by others but relies on the Trust's infrastructure to support it)
- Protect** – (owned by others and would be affected should the Trust's infrastructure fail)

## HOSTING

Public Road bridges	Towpaths
1,136 electricity cables	1,576km electricity cables
422 water mains and 106 sewers	
374 gas mains	1,302km gas mains
1,806 telecom cables	659km telecom cables

## PROTECTING

Embankment	Reservoir
840 sub stations protected	387 sub stations protected
128 schools protected	34 schools protected
Railways protected at 570 locations	Railways protected at 55 locations
Motorways protected at 114 locations	Motorways protected at 18 locations
370,294 people protected	193,663 people protected
31,881 businesses protected	
122,428 properties protected	80,693 properties protected



# Our Approach to Impact Generation & Reporting

*Our canals are living waterways that transform places and enrich lives*

Our Strategy involves looking after the network in our care, so that the basic service 'offer' to all users and visitors is delivered safely and efficiently. Along with promoting them widely to 9 million+ people who have canals, other waterways and waterspaces 'on their doorstep', so that many more people connect with, and benefit from, this free and accessible community resource.

Our network of canals, navigable rivers, docks and reservoirs are delivering a wide range of economic, social, environmental and cultural benefits to society. They are improving the wellbeing of individuals,

communities, nature, the economy and the planet and have the potential to make significant contributions to six of the UN sustainable development goals.

The level of contribution to these goals is heavily dependent upon the resilience of this historic waterway infrastructure and the canals, other waterways and waterspaces as well as the towpaths being safe and inviting places to visit, use and enjoy.

For more information, please go to <https://canalrivertrust.org.uk/valuing-our-waterways>





## Generating our impact – our pathways to societal outcomes

Creating the conditions necessary for generating and delivering the wide range of public benefits is dependent upon:

**maintaining and improving the resilience of the waterway infrastructure** in the face of growing impact of climate change so that the network is open and safe to use, protects and supports third-party investment and vital public services and utilities;

**removing the barriers to use and enjoyment** in order to offer communities clean, safe and inviting blue spaces and routes to visit, use and enjoy; and

**extending our reach and impact** through community engagement activities so that local people benefit from improved physical and mental health outcomes associated with spending time in green/blue spaces.

### Assets

200 years+ old fragile heritage assets are resilient and safe

### Quality

Accessible and inviting blue spaces and infrastructure

### Experience

Platforms for uses, activities, utilities and sustainable development

### Impact

Societal Outcomes (Public Benefits)



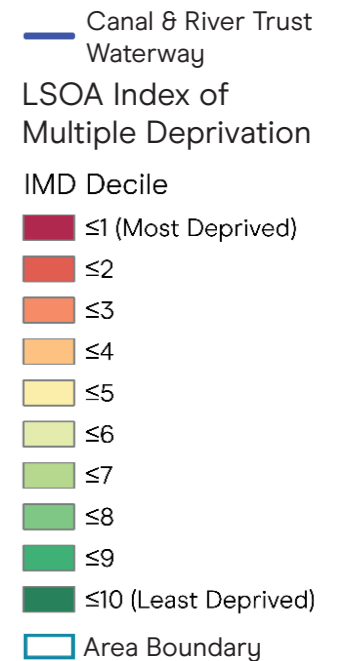
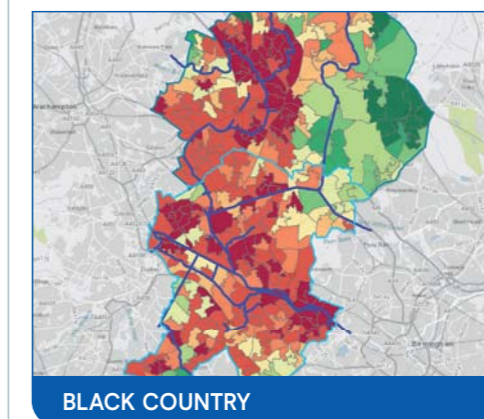
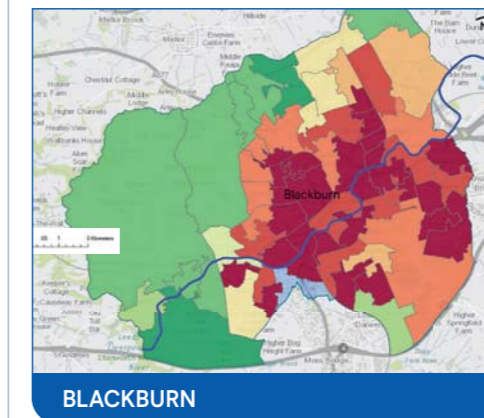
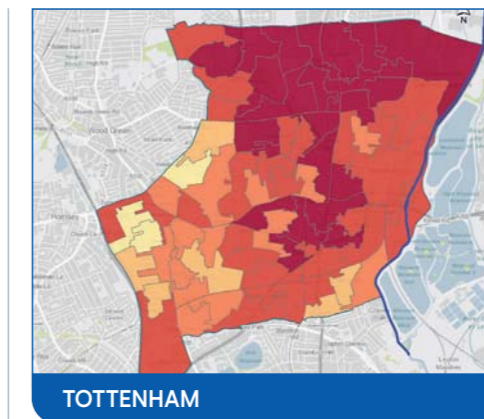
## Generating our impact – our ten outcome focus areas

To achieve maximum impact, the Trust must use its resources where it can make most difference.

We have selected ten areas across England and Wales which have reach into communities at most in need, offering significant opportunities to make a real difference.

In these outcome focus areas, we have worked with local partners, including local, town and parish councils, charities, faith groups and businesses, to showcase how our network of canals, other waterways and waterspaces can contribute to individual and community wellbeing. We are evaluating the impact of adopting a place-based, holistic approach, working in co-production with local communities where appropriate.

The Trust's 'Community Roots' programme, funded by the players of People's Postcode Lottery, focuses on making canals, navigable rivers, docks and reservoirs relevant to local people in each of these ten areas, understanding patterns of use, perception of the value of their local waterway and building sustainable 'community ownership' through local empowerment and support.



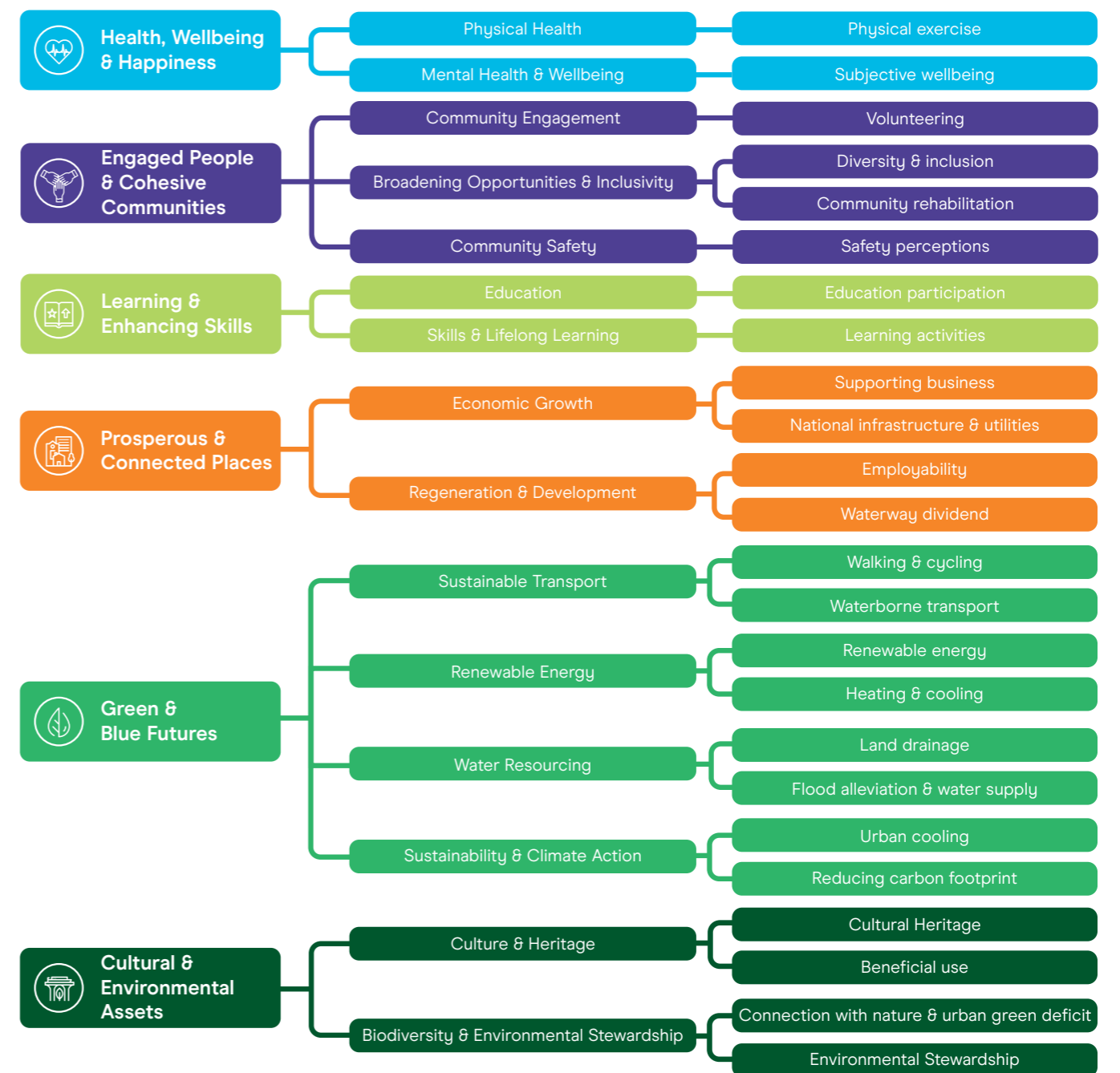
## Our ten outcome focus areas



## Measuring our impact – our outcomes measurement framework

Our Outcomes Measurement Framework (OMF) was developed in collaboration with Cardiff University's Sustainable Places Research Institute (PLACE). It is a suite of outcomes ambitions, output and outcome-

orientated indicators, grouped under six themes which reflect the breadth and multi-benefit nature of the network's contribution to society and the economy.






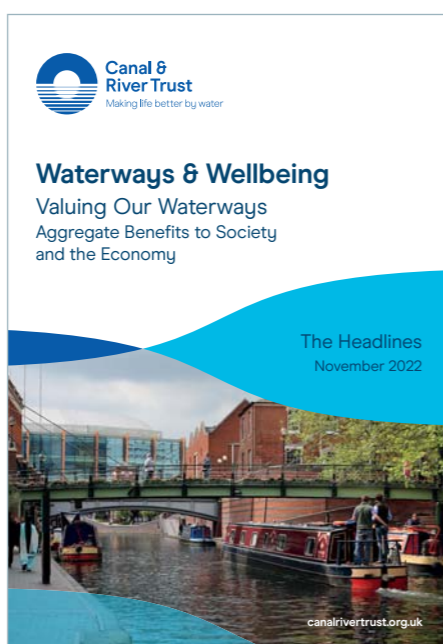
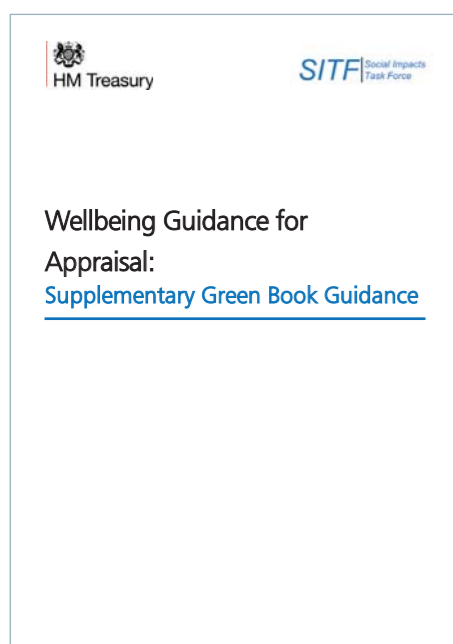
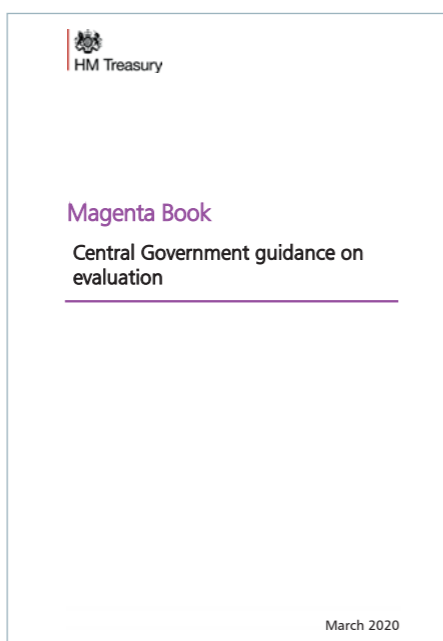
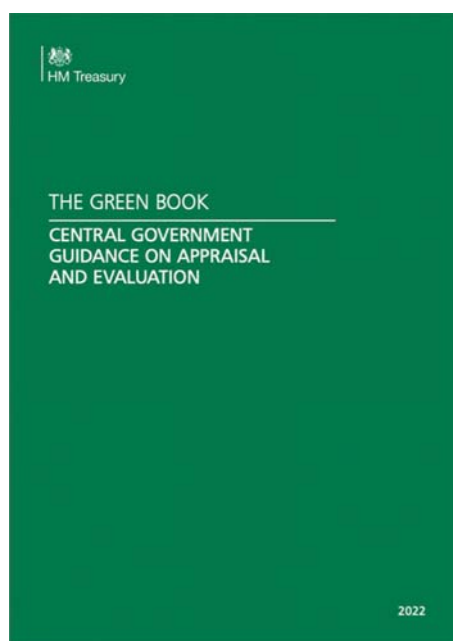
## Valuing our impact – following HM Treasury methodologies

In evaluating and measuring the breadth of societal benefits, we have been following the 'Theory of Change' approach, as laid out in HM Treasury Magenta book (2020).

In valuing the different societal benefits, we have been working

with Simetrica-Jacobs (leaders in social value) to define and apply appropriate valuation techniques that are fully aligned with HM Treasury Green Book (2022).

 For more information, please go to <https://canalrivertrust.org.uk/valuing-our-waterways>



## Reporting on our impact

This amazing network of canals, river navigations, docks and reservoirs contributes to our lives in a host of different ways, some of which cannot be quantified in this way.

This impact report seeks to showcase a few of the many stories and testimonies, partnerships, programmes and projects that sit behind the monetised values set out in 'Valuing our Waterways' (November 2022) and capture those benefits that could not immediately support bottom line metrics, but are of qualitative value.

To demonstrate the full breadth of societal benefits, we have grouped the case studies and stories under our six OMF themes, showcasing the stories, partnerships, programmes and projects.

 <p><b>Health, Wellbeing &amp; Happiness</b></p> <p>Improving health outcomes, helping tackle health and inequalities and save the NHS £1.1 billion every year.</p>	 <p><b>Prosperous &amp; Connected Places</b></p> <p>Contributing £1.5 billion per year in added value to the UK economy and supporting 80,000 jobs through businesses based on our waterways and tourism; supporting sustainable urban waterside living and levelling up; connecting and servicing communities by hosting vital telecommunications and utilities across the country.</p>
 <p><b>Engaged People &amp; Cohesive Communities</b></p> <p>Using our network to provide vital blue space for 9 million+ living within 10–15 minutes' walk and to build and sustain social connections and community cohesion.</p>	 <p><b>Green &amp; Blue Futures</b></p> <p>Protecting homes and businesses from flooding by our embankments and reservoirs being in good condition totalling approx. £42 billion of social value, and our network supporting the green economy and water security.</p>
 <p><b>Learning &amp; Enhanced Skills</b></p> <p>Providing a unique space for outdoor learning, building character and resilience, developing employability skills and improving life chances for children and young people, many from the most economically disadvantaged areas.</p>	 <p><b>Cultural &amp; Environmental Assets</b></p> <p>Caring for our internationally renowned working heritage and 2,000 miles of wildlife corridors, and connecting people with our cultural heritage and nature.</p>



# Health, Wellbeing and Happiness

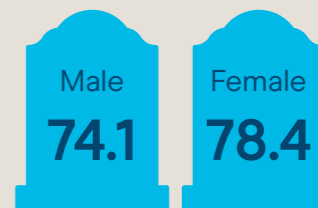


## Health, Wellbeing and Happiness

### The state of health in England & Wales



**1 in 4**  
people will experience a mental health problem each year. (MIND 2020)



From 2018 to 2020, male life expectancy at birth in the most deprived areas in Wales was 74.1 years compared with 81.6 years in the least deprived; among females this was 78.4 years and 84.7 years respectively. (ONS 2022)



Mental health problems cost the UK economy at least **£117.9 billion** annually. (Mental Health Foundation and London School of Economics and Political Science 2022)



Nationally **30%** of children and **26%** of adults do less than 30 minutes of exercise per week. (Active Lives Survey 21/22)



It's predicted that almost **40%** of the UK adult population will be obese by **2040**. (CRUK 2022)



People who are using our network of canals and towpaths, river navigations, docks and reservoirs have improved physical health which is saving the NHS £1.1 billion per year.

The UK is in the midst of a growing national health crisis due to a lack of physical activity and rising mental health issues. This is placing extra strain on our NHS. Promoting and funding 'Preventative Health' measures are seen as instrumental in tackling this crisis, and our network of canal and towpaths, other waterways and waterspaces have a vital role to play.

Our modern way of life and urbanisation presents a variety of public health challenges. These include chronic diseases such as diabetes, heart disease, strokes and obesity, and higher rates of depression, anxiety and mental ill health. Most of these conditions are exacerbated in populations experiencing inequalities. The gap in healthy life expectancy between the most and least affluent areas is 19 years in England (Office for National Statistics (ONS) 2021). In Wales, the gap in healthy life expectancy between the most and least deprived areas remains wide (but stable between 2011-2013 and 2018-2020) with female healthy life expectancy the lowest out of all UK nations. (Public Health Wales Observatory, 2022)

Poor health often has a detrimental effect on stress levels, self-esteem, weight and physical activity; and the evidence shows that activity levels decrease as deprivation increases. (ONS 2020)

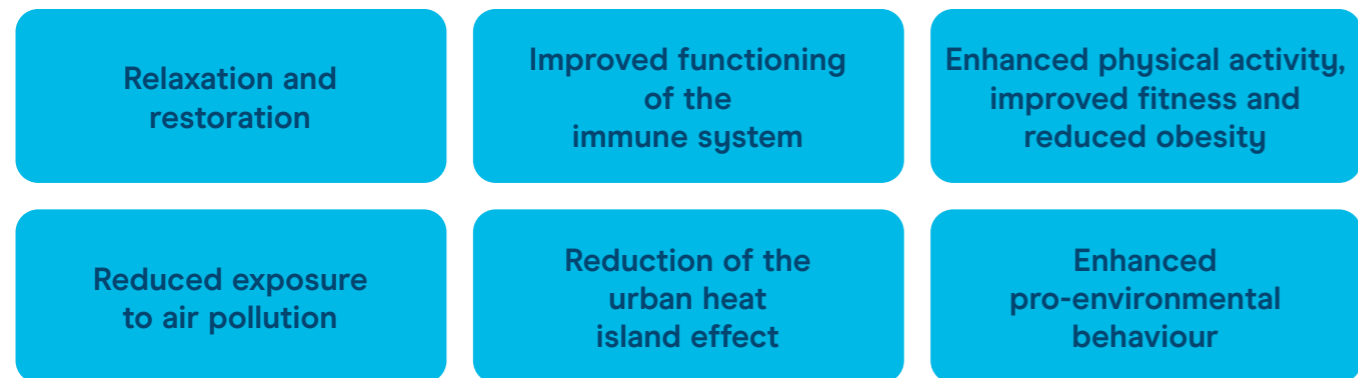


"An astonishing nine million people live within one kilometre of a canal and whether you're looking for a free alternative to the gym, a car-free commute to work or the shops, or perhaps just somewhere to hang out with family or friends, I really do urge everyone to find their #HappyPlaceByWater."

Dr Amir Khan



The World Health Organisation (2016) identified the following pathways linking the observed health outcomes and urban green and blue space and infrastructure:

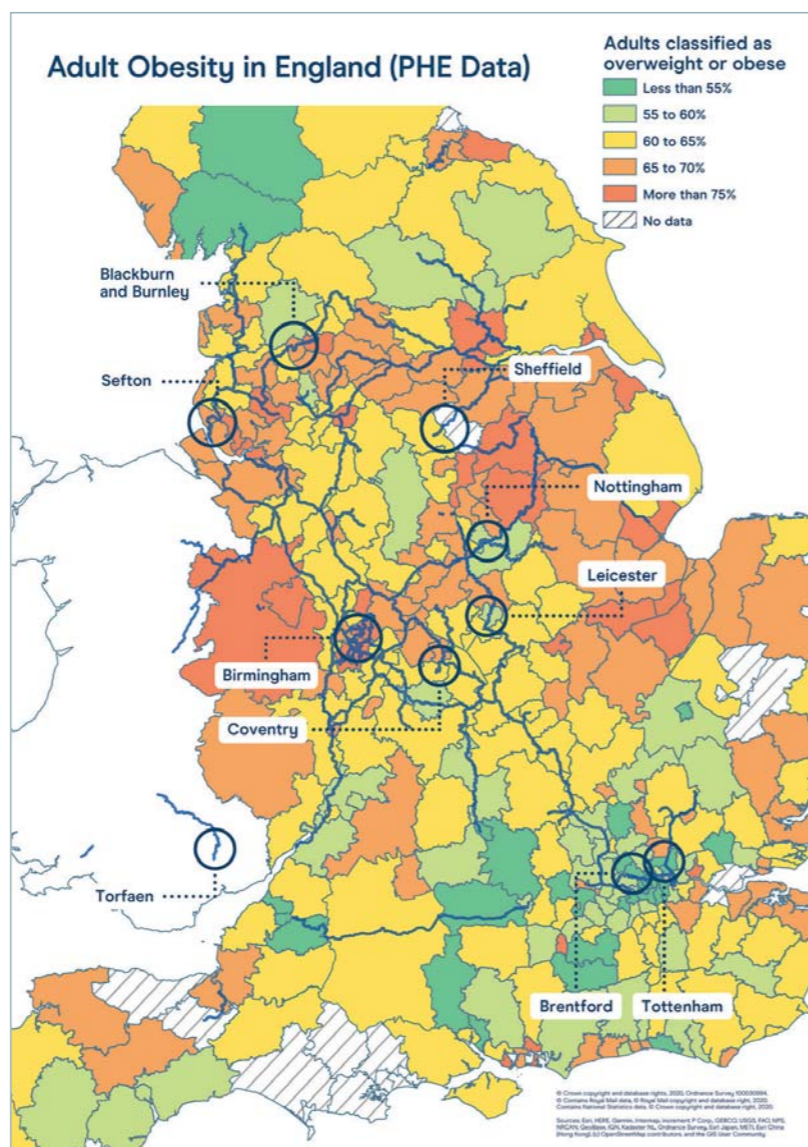


The blue space and blue infrastructure provided by waterways can play a significant role in helping to address many of the challenges arising from the health, biodiversity and climate crises that we face as a nation. They can improve wellbeing outcomes and tackle wellbeing inequalities, particularly for those from economically disadvantaged backgrounds living in metropolitan and urban areas in England and Wales.

Poor mental health and physical inactivity present an economic and social cost to the nation. Many of the communities living in close proximity to our canals, other waterways and waterspaces have high concentrations of adult and child obesity and type 2 diabetes, and live in urban areas with green space deficit. There is real potential for our network to help tackle these challenges being faced in these deprived areas.

Unequal access to greenspace leads to health inequalities and disparities such as chronic stress and sedentary lifestyles, placing an intolerable burden on the NHS and the wider healthcare system.

The most economically disadvantaged regions of England and those areas most affected by the COVID-19 pandemic in England have the greatest health and wellbeing inequalities, the highest urban green space deficit (access to nature) and limited access to private garden or private outdoor space.



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Prevention is a key area of focus for the NHS, aligning to ambitions of Sport England's 'Uniting the Movement – 10 Year Strategy', (2021) to improve physical and mental health through physical activity. Programmes to reconnect people with nature can provide a viable early intervention for mental and physical health challenges.

The natural outdoor environment is increasingly valued as an important public health resource. Recent research highlights physical activity, social interaction, and environmental factors as potential pathways linking blue space and health. A research initiative, BlueHealth, found that access to urban blue spaces such as canals and rivers, resulted in significant improvements in wellbeing and mood for individuals walking through urban blue spaces, particularly those from deprived communities.

We have a strategic focus on tackling physical inactivity, promoting an active lifestyle, addressing health inequalities and making a difference for children and young people. Our canals and programmes, in partnership with others, are providing a platform to help improve health outcomes.



**“The biggest thing you can do for your health, the most positive thing you can do is to be physically active. If we are serious about addressing things like type 2 diabetes, obesity and the 50% of stuff in the NHS that’s preventable, then we need to do this stuff at scale.”**

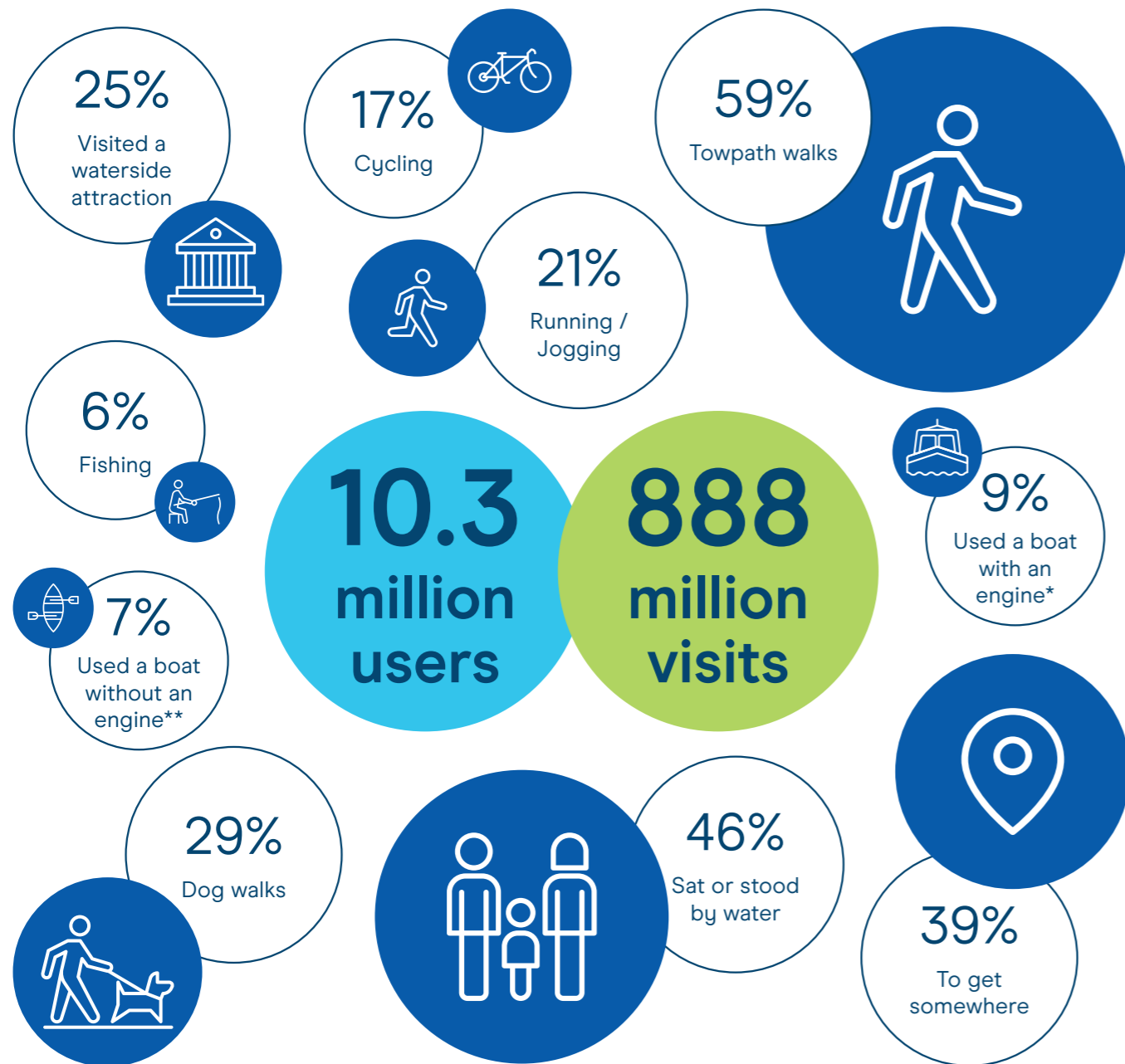
Dr Ewan Hamnett, Retired Doctor, Quinborne Medical Practice





## How people use and enjoy our network of blue spaces

The different ways that people are spending their time on and by the water.



An individual is only counted once in the 'total' figure, they may however have done more than one activity during their visit and therefore the percentage total does not sum to 100%.

\* Both trip or excursion boats as well as private boats.

\*\* Includes activities such as canoeing, rowing boats and sailing boats.

Source: Waterway Engagement Monitor 2022/23, conducted on behalf of the Canal & River Trust by DJS Research. The WEM is a year-round, online survey amongst a representative sample of 20,400 adults (15+) across England and Wales.



**“For anyone wanting to get active, it’s a great place to come. You know, when you live in a city, there’s not too many green spaces like this about.”**

Haroon Mota from Foleshill, a Coventry Canal enthusiast, Founder of Active Inclusion Network



# 'Canals on prescription'



## Case study: Green Social Prescribing

Social prescribing supports a preventative approach to relieve pressure on the NHS. It aims to help improve mental wellbeing and physical health, and prevent non-clinical issues from becoming a medical concern.

With funding from Defra Green Social Prescribing pilot and Thriving Communities Fund, we developed our Waterways and Wellbeing programme in South Yorkshire, Bassetlaw, Nottingham and Nottinghamshire.

Working with a wide range of health and voluntary sector partners, we engaged over 1,000 members of the local community in a range of activities along the Nottingham

and Beeston canal, including paddleboarding, canoeing and walking, helping them to develop a more active and healthier lifestyle.

As well as improved mental and physical health, the project also aimed to increase care for the waterways, people's sense of social cohesion and sense of civic mindedness, and develop knowledge and skills amongst participants.



Over **1,000** people took part in Trust-led activities leading to:

- ✔ Significant improvements in mental wellbeing – an increase of 23% in wellbeing scores.
- ✔ Increased levels of physical activity.
- ✔ Improved self-efficacy, reduced loneliness and improved perceptions of health.
- ✔ Reported benefits relating specifically to the experience of being in nature.



## Waterways and Wellbeing Partnership Project

Supported by the Thriving Communities Fund, made possible thanks to:



“My mum and sister had strokes and caring for them has taken its toll on my own mental health. After losing my mum in 2019 the waterways have been a great source of calm and somewhere to recover, grieve and find new happiness – pushing myself to do something outside my comfort zone. To get out again in nature and meeting new people, which will all help with my mental health.”  
Velma Hamilton

“It offers exercise for the body, calmness for the mind and friendship for wellbeing.”  
Female participant, aged 47

“A holiday from the world.”  
Female participant, aged 59



Watch our film here:  
<https://www.youtube.com/watch?v=Eel-l-KiWpl>



## Case study: 'Isolation to Inclusion' Project

This research project involved collaboration with partners across Northern Europe to address loneliness. Local projects were tailored for priority target audiences to facilitate a more active and healthier lifestyle.

The aim of the partnership funded by Interreg was to develop (in co-creation with the community) activities to improve social inclusion and loneliness. These activities formed part of our offer for social prescribing and were used by GPs, link workers and community groups for patient referrals.

**50** multi-sector partner organisations from across Europe.

**228** people took part.

**60%** reported feeling less lonely after taking part.



Andrew Salt, Canal & River Trust volunteer supporting the project, said:

"I strongly believe the canals are for everyone. They are free to use, they create a great atmosphere of beauty and serenity and I believe this can be of great benefit to everyone in society, but in particular for those who might be struggling due to social pressures or anxieties."



Watch our film 'From isolation to inclusion' here: <https://www.youtube.com/watch?v=82J5OX3U5tl>

## GP Guided Walks in Birmingham



As well as providing the chance to improve physical and mental health by addressing social isolation and loneliness, our 'Walk with a GP' project offers the chance to check-in with GP at the same time as enjoying the great outdoors of the canal network in Birmingham.



Watch our film 'Walk with a Doctor' here: <https://www.youtube.com/watch?v=B4mAh7ngoGY&t=1s>

## Helping people to discover the benefits of their local canal or other blue spaces

### Case study: Keeping communities active and connected

Using funding secured from Sport England's Together Fund we supported local organisations to keep communities active and connected and to combat the effects of the pandemic.

We awarded over £325,000 to 66 grassroot projects in Pennine Lancashire, Sefton and Manchester, to help tackle inequalities exacerbated by the impact of the pandemic.

Funded projects included supporting young people with additional needs and disabilities through outdoor activities in Sefton; improving women's wellbeing through water-based activities in Oldham and walking and cycling activities with isolated residents from the Chinese community in Manchester.



“Working with Support and Action for Women's Network, we have collaborated to do a paddlesport project called 'Women on Water' (WOW) funded by Together Fund with Canal & River Trust. Our project is about giving women the chance to get on the water and train in paddlesports to increase confidence and physical activity and become leaders in canoeing/kayaking. As a result of Together Fund we've built a network of community leaders and funded project such as cycling, walking and paddling in Failsworth that come together to better peoples lives. On the back of this project, we have secured more funding and have even become a British Canoeing affiliated Canoe Club.”

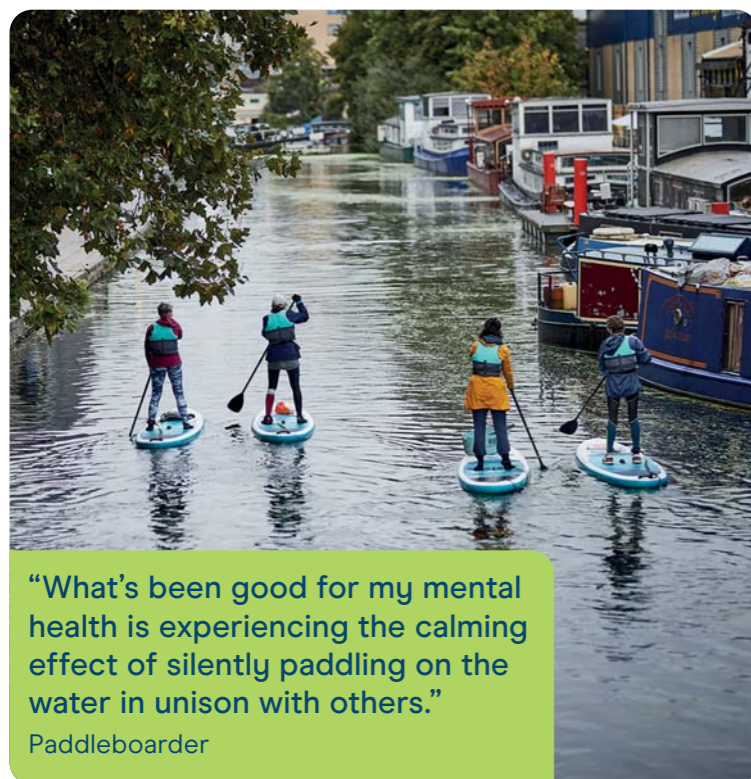


Victoria Holden (Northern Lily, Together Fund project Women on Water)

“Taking part in the WOW sessions showed me that I could really do anything I put my mind to even though I initially felt fear I am glad I did it anyway. I learnt a little bit more about myself and my capacity for growth whilst learning and doing the sessions and going on water.”

Mary Anne Oduntan





“What’s been good for my mental health is experiencing the calming effect of silently paddling on the water in unison with others.”

Paddleboarder



### Case study: Community Roots – getting communities active

Nature-based activities have been proven to improve mood and reduce anxiety. Whilst tackling more adventurous activities such as canoeing can boost self-esteem and self-confidence.

Through our Community Roots programme, funded by the players of People’s Postcode Lottery, we are exploring new ways to engage people with their local canal and to encourage more people to make use of these waterspaces for healthy activities.

A new Community Paddle Hub on the Sheffield and Tinsley Canal has provided an opportunity for our Community Roots officers to connect with young people in the area. The team co-created a programme of half-term activities, providing opportunities for local people to visit the canal, many for the first time.

One grandmother reflected on her grandson’s experience.



“This was the first time he has ever canoed, he was so chuffed with himself for getting out on the water and having a go. (He) loves the outdoors, so since our Let’s Paddle session, he’s eager to see what else he can try with the Canal & River Trust.”

### Case study: Let’s get active together

Canals create connections – between people, communities and with nature. These connections are vital in increasing community cohesion and reducing loneliness.

Funded by the players of People’s Postcode Lottery, our Let’s and Community Roots programmes connect people with their local waterspace and with opportunities to improve their physical and mental wellbeing.

Operating in areas of greatest need, our Let’s activity programmes are making a real difference to people’s lives by increasing access to green and blue spaces on their doorstep.



11,682 people took part in 824 Let’s Walk sessions.



8,652 people took part in 297 Let’s Paddle events.



18,708 people took part in 507 further Let’s activities, including Let’s Yoga and Let’s Paint.



#### Let’s Move, Sefton

Walking-for-wellness was a transformative 12-week programme aiming to help local people get more out of their walks. The free wellness programme supported the community to explore their green & blue spaces, meet new people and get active using features of the landscape along the canal to perform exercises and build strength.

“I learnt some exercises which will certainly help me stay active and improve my balance.”

Female participants, aged 50+

“At the age of 67 it was a pleasure to meet people of a mixed age group and get involved in activities that I wouldn’t have done if left to my own devices. It certainly improved my mental wellbeing.”

Female participant, aged 67

“I think everything in nature is linked. Being outdoors takes you away from the city. It gives you a break from the realities of this world.”

Dog walker





## Case study: Improving lives through Let's Fish

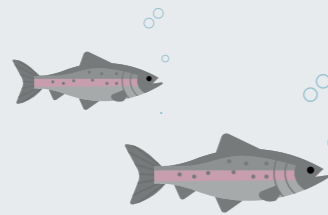
Fishing involves a therapeutic engagement with nature and green-blue spaces, which can have a positive effect on a person's subjective happiness, satisfaction, relaxation levels and overall emotional wellbeing. (Royal College of Psychiatrists)

Let's Fish introduces people of all ages and backgrounds to the green space and fishing opportunities provided by the canals. It aims to connect people with their local waterway and nature for improved wellbeing and create a pathway of regular participation into the sport through angling clubs and as a self-led activity.

### Daniel's story

Daniel from Walsall, who attends a school for young people with special educational needs, discovered fishing through our Let's Fish programme and has been hooked ever since.

Daniel's Nan, Lorraine recognised the positive impact of Let's Fish on Daniel's wellbeing and behaviour: "when he comes fishing, he sits there, and he is calm. Let's Fish is the best idea ever. It gets your children out in the fresh air and takes them away from technology."



**1,451** Let's Fish events held with a total of 26,985 attendees.

The majority of these events were free of charge, encouraging people of all ages to take up the sport and spend more time outdoors. (March 2021 – December 2023)



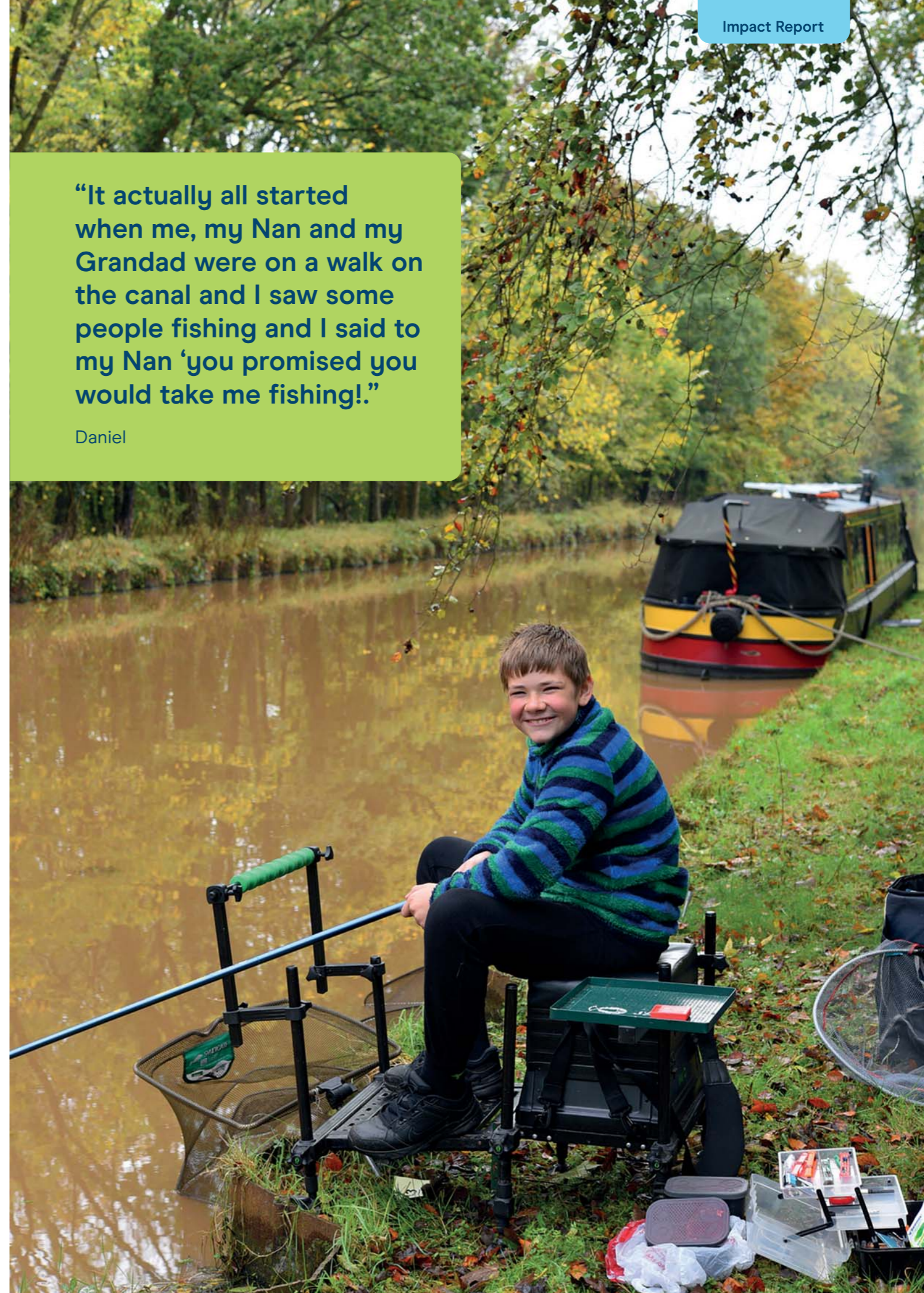
**40%** of participants go on to fish on their own or with friends since attending a Let's Fish! event.

**21%** joined an angling club.

**15%** have since picked up litter on the canal or elsewhere in nature for the first time.

"It actually all started when me, my Nan and my Grandad were on a walk on the canal and I saw some people fishing and I said to my Nan 'you promised you would take me fishing!'"

Daniel





## We are improving mental wellbeing

The annual subjective wellbeing value associated with visits to our network is estimated at £2.9 billion per year.



Happiness



Life satisfaction



Worthwhile



Anxiety

### Case study: Our research

Since 2018, we have been working in partnership with academics at King's College London to better understand the real-time effect of spending time by canals, particularly the impact on mental wellbeing.

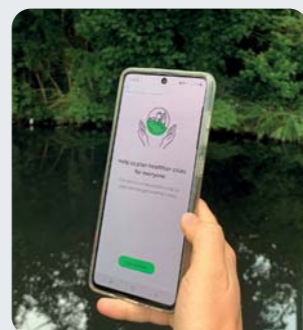


Through the development of Urban Mind, a smartphone-based momentary assessment tool, we have developed a greater understanding of the links between the environment and personal wellbeing. The app collects real-time data to enable research that demonstrates how different aspects of the urban environment affect mental wellbeing.

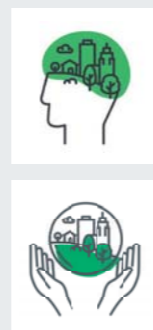
Our collaboration led to the publication of an academic study (published by the American open access scientific journal PLOS ONE on 31 August 2022) which found that visiting canals and rivers was associated with a **6% improvement in mental wellbeing** and that this association is statistically stronger when compared to just greenspaces alone.

“Canals and rivers contain not only water but also an abundance of trees and plants, which means their capacity to improve mental wellbeing is likely to be due to the multiple benefits associated with both green and blue spaces. These findings provide an evidence base for what we thought about water and wellbeing and support the proposal that visits to canals and rivers could become part of social prescribing schemes, playing a role in supporting mental health.”

Professor Andrea Mechelli, Professor of Early Intervention in Mental Health at King's College



Credit Neil Davidson, J&L Gibbons



For more information, please go to <https://canalrivertrust.org.uk/valuing-our-waterways>

### Victoria's story:

## Spending time on the River Soar boosts wellbeing

Victoria Payne, Head of Geography at Orchard Mead Secondary School in North Leicester, said:

“Our school is in one of the most deprived parts of Leicester, with a high proportion of children qualifying for Pupil Premium funding and free school meals.

“Many of our students are disengaged with nature and the outside world, and we have a growing number of pupils with social and emotional issues.

“We approached Canal & River Trust for activities to fill a four-week block of intervention sessions for pupils struggling to manage emotion, behaviour and attendance.”



“The sessions have had an equally positive impact on them. We all say how much happier we are after the sessions. It's spurred us on to get the students out as much as possible and, where possible, out by the water.”



## James' story: Finding confidence, connections and purpose

I have been volunteering with the Trust for about five years now. I was really shy when I started out, but now there's always someone I know when I go anywhere now, and that's really nice, gives me a sense of belonging to something bigger.

I had been stuck at home unable to work due to a disability for years and I wanted to get out and do something, so I started volunteering with the Trust in 2018. I like that I am helping people and the environment. I get a real feeling of accomplishment; I meet new people and make new friends and feel much more confident in myself so much so that I became a Lead Volunteer which I never imagined myself doing.

Volunteering gives me a purpose, it has a really positive effect on me mentally and physically. I have gained so much confidence. I feel useful, I'm a lot more active when I'm volunteering, I get a lot of exercise which is good for my health. I've

made so many new friends and met people who I wouldn't have otherwise. I've discovered I really enjoy speaking to people and hearing about their backgrounds.

After years of dealing with low confidence, it only took a few weeks for me to become more and more involved and take on added responsibilities. Being relied upon grew my confidence and brought me out of my shell. For me, the best part about volunteering is the social aspect. I enjoy making new friends, becoming part of a team, working with people, and having fun. I genuinely look forward to getting out and taking part in events.



**“Volunteering gives me a purpose, it has a really positive effect on me mentally and physically. I have gained so much confidence.”**

James





# Engaged People and Cohesive Communities



Our network of canals and towpaths, navigable rivers, docks and reservoirs are within a 10-15 minute walk of over 9 million people in England and Wales, providing vital blue space and access to nature on the doorstep.

The UK is experiencing an urban green space deficit. 8 million+ people having no private garden or no/limited access to public open space and nature. Many communities are feeling increasingly fragmented and individual loneliness and social isolation is on the rise – with c50% of adults in the UK reported to be feeling lonely occasionally, sometimes, often or always.



## Engaged People and Cohesive Communities

### Urban green space deficit



**85%** of the UK population lives in an urban environment.



**8 million** households do not have access to green space.



In a third of local authorities, more than **70%** of the population is further than a 15-minute walk to a natural space.

(Research (2023) by Alliance of Green Groups)

In May 2023, the UK Government pledged that everyone in England will be within a 15-minute walk of green space or water (EIP 2023). Our canals and towpaths, river navigations, docks and reservoirs provide ready and easy access to nature, particularly within urban communities. Also, volunteering and engagement opportunities connect people to place, nature and each other, enhance the physical environment, build social connections and a sense of belonging.

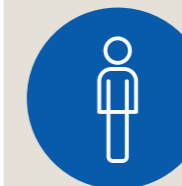
For people in the most deprived and disadvantaged communities, canals, other waterways and waterspaces are often the only green and blue space available 'on the doorstep'. In many of these areas, barriers to participation, both real and perceived, mean these green/blue spaces are not being widely used although the rise in use during the Covid pandemic highlights the scale of the potential they have in providing access to outdoors space and nature.

By working with volunteers, local communities and partners we are transforming our network of canals, other waterways and waterspaces into safe, attractive and thriving green and blue spaces on the doorstep of over 9 million people across England and Wales.

### Loneliness and social cohesion



Research shows the most important factor for community wellbeing is feeling safe (82.3%). (ONS 2022)



**49.6%** of adults in the UK in 2022 reported feeling lonely occasionally, sometimes, often or always.



People in communities with higher levels of social cohesion experience lower rates of mental health problems than those in neighbourhoods with lower cohesion.

### Increase in towpath and canal usage during 21 March 2020 to 5 July 2020



Burnley – 306%	Blackburn – 181%
Sandwell – 277%	Torfaen – 186%
Ilkeston – 208%	Tottenham Hale – 159%



# Creating accessible, safe & inviting places on and by the water

## Case study: Our research

Our research tells us there are two major, related barriers to non-users visiting and enjoying our canals, other waterways, and waterspaces that we need to address: a concern about perceived personal safety and security, and not being an appealing environment. These barriers cut across all demographics but are more acute among older, female and people from ethnically diverse communities, and amongst non-users living within 1km within urban areas – our very target groups and areas for making the greatest impact. These findings mirror research by Public Health England (PHE, 2020) into the importance of quality of green and blue spaces.

Making our canals accessible, safe and inviting is our priority and we have developed a range of programmes that are helping to drive improvements including 'Beauty and Wellbeing on the Doorstep' where we are taking a

placed-based approach, working with communities and partners to better understand the barriers they face, and co-creating interventions and activities that empower local people to take action and ownership.



**Discarded syringes, human excrement and piles of rubbish – the 'disgusting' sights which greeted visitors along Ashton Canal**



**The beautiful birds, fish, flowers and people you can find at Ashton Canal**



Perceptions & Barriers



Caring & Loved



Micro Benefits

## Case study: Plastics Challenge

We know that litter is a major factor in people perceiving a space to be unclean and unsafe.

In 2019 we undertook a detailed analysis of the plastics and litter found on our canals and rivers. Working with Coventry University, we examined the scale of the problem and the actions that we need to take.

Our Plastics Challenge Campaign is raising awareness of the issue and encouraging people to join plastics challenge litter picks. The campaign has had great support from the public, partners and celebrities and in 2023, we won the 'Drops in the Ocean' advertising fund award, receiving £250k of billboard advertising in towns and cities.



Credit, Mark C Baker

Our research found that there are:

**24 million** items of plastic and other litter entering our waterways every year.

**14 million** items (59%) are plastics such as bags, bottles, disposable cups and food wrappers.

**½ million** items of plastic are reaching the ocean.

We are spending **£1 million+** a year on removal.



Since launching **#PlasticsChallenge**, there have been:

**210 million** opportunities to see our marketing and communication.

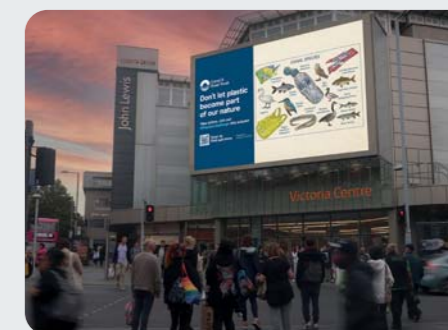
**270,000** people have engaged with us on social media and digital channels.

**5,200** people have actively signed up to our pledge tool.

In 2024, we plan to undertake a further study and update our findings.

“ We felt that this charity was on the doorstep for so many people and our teams were both familiar with the Trust and could see and experience the impact directly. This helped the Trust stand out from other charities in this 'environmental' category whose impact, whilst admirable but was geographically far removed. ”

The judging team from Ocean Outdoor Media for their 'Drops in the Ocean' advertising fund







“I enjoy exercising with my daughter, Jaime. It’s a great way to reconnect with each other and take some time without the day-to-day distractions of work and school. Running along the canal together is a great way to get away from it all. It gives us an opportunity to escape from the roads and the noise of the traffic. I didn’t realise that collecting litter while you’re running is called ‘plogging’ until recently. It makes sense to do it when we’re out running together. It gives us a focus and helps distract from the distance we’re running.”

Jacqui

Engaged People and Cohesive Communities

“Plastic litter is a huge issue, and it’s something that I think everyone can get involved in. Please join the Plastics Challenge to help make your local canal a place all of us can enjoy.”

Bill Bailey



Four-year-old Ayesha decided to collect litter along the Paddington Arm of the Grand Union Canal near her home in London to help protect the wildlife that lives there and she made a film for us to encourage others.



Watch the film here:  
<https://youtu.be/sO4W197AKSg>



## Case study: Green Flag Award® Scheme

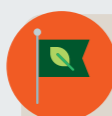
The Green Flag Award® scheme recognises and rewards well managed parks and green spaces, setting the benchmark standard for the management of recreational outdoor spaces across the United Kingdom and around the world.

The Award is managed under license from the UK Government Department for Levelling Up, Housing & Communities by Keep Britain Tidy who also administers the scheme in England. Keeps Wales Tidy administers the scheme in Wales.

In recent years, we sought to obtain Green Flag status for many sections of our network.

Over 700 miles of our canals, other waterways and waterspaces, representing a third of our network, now hold Green Flag Awards®, including urban and rural stretches in Sheffield, Birmingham, Garstang, Wigan, Saddleworth, Stoke and Wolverhampton. This significant milestone has been achieved thanks to the support of our volunteers and local partners who do so much to make their local canals, waterways and waterspaces attractive places for people to spend time.

According to Green Flag, the benefits for canals, other waterways and waterspaces include gaining national recognition, encouraging increased usage, preserving historic importance and helping to attract third party funding and support.



According to its website, the Green Flag Award® aims to:

- ✓ Ensure that everybody has access to quality green and other open spaces, irrespective of where they live.
- ✓ Establish standards of good management.
- ✓ Ensure that these spaces are appropriately managed and meet the needs of the communities that they serve.
- ✓ Promote and share good practice amongst the green space sector.
- ✓ Recognise and reward the hard work of managers, staff and volunteers.



# Place-based & co-creation in building community connections

## Our research

We commissioned our academic partners at the Sustainable Places Research Institute (PLACE) at Cardiff University to undertake a participatory research project in Leicester that explored the barriers to local communities using the Grand Union Canal (Leicester Line) and the River Soar Navigation.

We sought to identify the factors that could motivate wider and future participation with specific waterside communities and shed light on whether (and how) access to our canal and river navigation contribute to enhancing community wellbeing in the Belgrave district of Leicester. It also enabled us to test the community wellbeing model of People, Place and Power, developed by the What Works Centre for Wellbeing which describes some of the potential pathways to an intervention working.

We found that by engaging with our canal and river navigation, older people were combatting isolation or loneliness and those with mental health problems were finding people in the community to talk to as an informal support system.

In relation to those not currently using the local canal or river navigation, Belgrave residents reported that being part of groups representing ethnically diverse communities and religious gatherings were important. Also, an active presence of self-initiated activities including yoga and walking groups provided further focus and direction for how we developed our community activity programmes.

The People-Place-Power framework has been found to be a valuable lens through which to view and evaluate our community engagement and participatory programmes and for

building a better understanding of the role of waterways in enhancing community wellbeing.

The research project has been extended to explore an additional two Outcomes Focus Areas, Sefton and Brent, as case study areas. This second stage of the research project will focus on further exploration of the issues covered in the first stage, extending the approach to additional demographic groups within the new locations. The aim is to foster deeper understanding of people's engagement with waterways, and how the Trust can enable more people to enhance community wellbeing through engagement with our canals, other waterways and waterspaces. Research will continue to explore barriers to participation, how waterways access can enhance community wellbeing, and what could motivate wider participation.



<p><b>PEOPLE</b></p> <ul style="list-style-type: none"> <li>• Social support</li> <li>• Neighbours</li> <li>• Organisations</li> </ul>	<p><b>PLACE</b></p> <ul style="list-style-type: none"> <li>• Belonging</li> <li>• Natural &amp; Cultural assets</li> <li>• Services</li> <li>• Opportunities</li> </ul>	<p><b>POWER</b></p> <ul style="list-style-type: none"> <li>• Participation</li> <li>• Inclusion</li> </ul>
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## Community Roots in Action

Working with SEGRO, our Community Roots project in Brent, London used World Bee Day as a focus to encourage the local community to visit, find out about and help look after their local canal. Over 100 people learned about the biodiversity of the canal, took part in litter picks and built insect habitats.

“Really good to get an insight into the wildlife around the area – this is often missed when walking or driving around the busy and built up industrial area. It was also a great opportunity for us as a company to feel like we were doing something positive, understanding more about the environment near our offices and how to take more ownership for the sustainability of the waterways.”

SEGRO staff member



“We want regular users to see the space is cared for so hopefully they will respect it.”

Lorraine

In Smethwick, we are working with Eco-Sikh UK to deliver environmental improvements and community events along the canal. On Eco Community Day we planted trees and during Diwali Festival, Galton Bridge was lit up in celebration.





## Case study: Our place-based and co-creation in action

Since 2019, our Community Roots programme, funded by players of People's Postcode Lottery, has been working with communities living within 1km of our canals, river navigations, docks and reservoirs in our Ten Outcome Focus Areas where there are lower levels of wellbeing and access to green spaces is limited.

By engaging with people who don't currently use our canals, other waterways and waterspaces, and changing perceptions of them so they are seen as valuable local assets, we are connecting communities, making them stronger and more resilient.

Each Community Roots project is unique, focusing on community co-creation, promoting physical and mental wellbeing, making environmental improvements, and reconnecting people with nature. By building community capacity we are ensuring the positive impact continues beyond the initial funding period.

From January 2022 to December 2023

**54,961 people**

including **12,197** children and young people, took part in Community Roots activities.

We delivered **2,337** Community Roots events and activities.

**49** Community Roots canal adoptions.



### Ten Outcome Focus Areas



Sheffield



Blackburn and Burnley



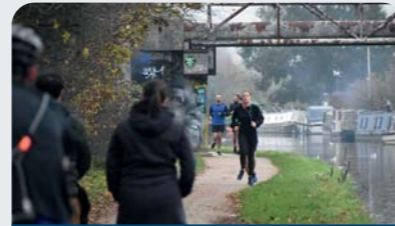
Black Country



Birmingham



Leicester



Tottenham Hale



Torfaen



Brent



Sefton



Coventry



By improving local peoples' awareness of the green and blue space available on their doorstep and increasing accessibility and engagement, the programme is delivering multiple benefits for individuals, communities and the environment. The physical waterway environment is also improved, which in turn further enriches the lives of those who use this space due to the benefits that engaging with nature brings.

Local insights are key to our Community Roots approach and between 2020 and 2022 we carried out research with 2,472 people across the ten locations to understand the project's impact to date and help shape future plans and priorities.

Overall, 15% of residents are aware of the Community Roots programme. Brent (37%) and Tottenham (34%) have the highest levels of awareness, whereas awareness is lowest in Leicester (7%), Burnley & Blackburn (5%) and Sandwell & Walsall (5%).

Those who have heard of the Community Roots programme are far more likely to have attended some form of event or activity at their local waterway in the past 12 months. Attendance is particularly strong in Brent.

Around a quarter of residents visit their local canal, waterway or waterspace at least once a week (26%).

Those who are aware that they live within 1km of their local canal, waterway or waterspace are more positive about the impact it has on their local area.

#### Evaluation to date shows that our Community Roots programme is:

- ✓ **Changing** negative perceptions of waterways – canals are seen as valued resources that need looking after.
- ✓ **Encouraging and improving** accessibility to canals, other waterways and waterspaces – giving people access to the green and blue spaces on their doorstep.
- ✓ **Having** important benefits for participants' physical and mental wellbeing.
- ✓ **Giving** people the chance to try something new, learn new skills and meet new people.
- ✓ **Helping** people to reconnect with nature and enjoy their local environment.

“When I first moved here, it was difficult because in my accommodation, there's truly little green space. I was introduced to the canal side, which is like literally in the Midlands anyway, it is everybody's local nature reserve.”  
Participant





## Case study: Engaging new audiences through Culture & Arts

Through our partnership with Arts Council England and Arts Council Wales, the Trust is using arts and culture to bring canals, other waterways and waterspaces to life in new and exciting ways, reaching new audiences and encouraging people from different backgrounds and communities to visit their local canal, river navigation or docks, often for the first time.

This partnership is based on a shared belief that arts, culture, and our country's vibrant canals, other waterways and waterspaces have an inspirational and transformational effect on communities and can boost wellbeing. It puts local people at the heart of delivering diverse engagement projects. It provides an opportunity to pilot place-based arts initiatives with the communities who are traditionally least likely to engage with the arts or canals.

Since January 2021, the number of people participating in the Trust's Art Programme have included:

**161,227** Trust-led activities

**227,039** Partner-led activities

**270,000** Digital / online activities

Total **658,266**



“Our partnership with the Canal & River Trust is helping the Arts Council bring culture to more people in more places, with investment in organisations such as Hinterlands in Sheffield and Super Slow Way in Lancashire supporting creative activity that engages with the environments around waterways and the communities who live near them. We look forward to continuing to work with the Trust to amplify the impact of our funding, and bring the benefits of creativity and culture to even more people across the country.”

Dr Darren Henley, CBE  
Chief Executive, Arts Council England

## Our national street art trail

Our national street art trail aims to transform spaces alongside our canals with the help of local artists and community groups. The art tells the stories of different communities who live along the canal and encourages local people to visit. Thanks to support from players of People's Postcode Lottery, we have developed street arts trails in Sheffield, Coventry, Oxford, London, Leicester and Birmingham, adding colour and life to the canals and other waterways.



Soar Lane by Joe & Rich. One of the five large scale canalside murals in Leicester. The artwork is reflective of the wildlife found in the local area.

Artist Joe Miles



## Mariam's story: Co-creation with the Somali community in partnership with Women's Inclusive Team

Since 2022, we have been working with the Women's Inclusive Team, an organisation advocating for equality and inclusion for Somali women, girls and their families in Tower Hamlets. The girls in the group had never been to the canal before and didn't see it as a space for them. Through a series of consultation and co-creation sessions, we worked with the girls and their group leaders to understand the barriers they were facing and co-designed a programme of activities that would enable them to experience and enjoy the Regent's Canal, including nature walks, kayaking and a boat trip.

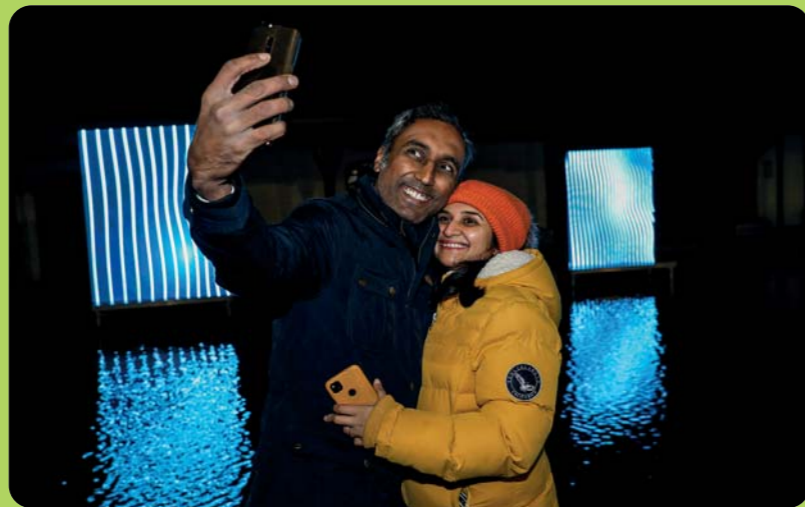


Mariam, a member of the London Girls' Group, said: "I feel happy when at the canal. I've been involved in the London Girls' Group by helping trips, canal walks, and waterways arts and crafts. My main motivation in being involved is to spend time by water with friends and feel safe and comfortable in doing so. I've enjoyed exploring new activities and

knowing that the canal is not just for white people. I've also benefited by learning how canals are maintained and looked after, so I can play a part in keeping them nice for others. The canal is important for me as it's local, and I love the atmosphere by water. I find water calming, and that being close to it has improved my mental wellbeing."

"Thanks to this project, the young ladies of the London Girls' Group have had exciting adventures along the canal."

We worked with Arts Council England as part of the Coventry UK City of Culture 2021 celebrations, hosting a range of events, performances and installations at Coventry Canal Basin. This included Studio Morison's Small Bells Ring narrowboat housing a floating library of short stories and school visits aboard our Learning by Water boat, Tucana.



## Windrush generation on the water, Black History Month Celebrations 2023 in Nottingham

We teamed up with Binks Yard to celebrate Nottingham's heritage, hosting a Black History Month event by the city's canal. The event gave people the opportunity to see the city from a new perspective and explore its heritage.





## Getting our waterways Games ready

As one of the leading members of the Birmingham 2022 Commonwealth Games programme 'United By Birmingham 2022', our Community Roots volunteers dedicated over 900 hours to make our canals look amazing, cleaning up over 22 miles of canals as part of our #plasticschallenge.



Over the 11 days of the games:

- 5 million** visitors to the region
- 152%** increase in footfall Perry Barr along Tame Valley
- 65%** increase in Birmingham City Centre
- 924 hours** of volunteering given by Trust volunteers
- 22 miles** of canal cleared of plastic through our Plastics Challenge
- 680 people** took a boat trip along Coventry Canal
- 2000+ people** engaged on 'Journeys' (floating museum)



## Engaged People and Cohesive Communities

### Birmingham 2022 Commonwealth Games Gen22 Programme

Canal & River Trust was one of the flagship delivery partners for the Birmingham 2022 Commonwealth Games Gen22 programme. As partner, we provided opportunities for young people aged 16-24 living in the West Midlands region to gain skills for life and work, by leading 100-hour volunteering projects and taking part in a series of employability workshops.



### Birmingham 2022 Commonwealth Games





## Community involvement & 'ownership' – volunteering, social action and rehabilitation

At the Trust, volunteers play an active, valuable and valued role at all levels and their time, commitment, energy and skills contribute so much to our charity.

The impact they are making every day is helping to ensure our canals, river navigations, docks and reservoirs are maintained, safe and welcoming spaces for us all to enjoy. Volunteers are helping us to make our canals, other waterways and waterspaces better places to visit – helping to

deliver great customer service and visitor experience, supporting our community participation programmes and events, undertaking repairs, restoration and environmental improvements, carrying out research as well as providing strategic direction and office-based support.

The annual wage replacement value to our volunteers is estimated at **£9.2 million.**



Last year 4,306 regular volunteers spent over **677,000 hours** helping us.



**48%** of our volunteers want to give back to their community.



Over **five million** hours of time has been given by our volunteers since the Trust was created in 2012.

The wellbeing value for our volunteers and affiliated partners is estimated at **£5.2 billion** per year.

**31%** want to meet new people and make new friends.



**30%** said mental wellbeing was a key reason for volunteering.



Since 2021, our 1,885 registered volunteer lock keepers recorded over **647,000 hours** of lock keeping.



“It’s all about people, boats, fresh air and outdoor activity. I’m into my ninth season as a volunteer lock keeper here at Diglis in the heart of the city of Worcester and I’m loving it more all the time. Each year I learn new things and meet new people. I’m getting great exercise in the fresh air, I absolutely love the history of the waterways and I get to meet some fascinating people.”

Gill, volunteer Lock Keeper, Worcester & Birmingham Canal



“My ever-growing relationship with the Trust is genuinely one to cherish. In the first 20 years of my life, I had never been to a canal. Today, I volunteer on the Trust’s Council, Regional Board for London and am the Chair of the Youth Advisory Group, actively seeking and creating ways to guide young people and communities towards the waterways. I am driven to help people appreciate the Trust’s network of canals and navigable rivers. My involvement has contributed to my own personal and professional development and helped to progress the businesses I run.”

Louis Howell, Trust volunteer



“We are working with corporate volunteers to deliver practical improvements. Our partnership has seen MACE volunteers and Trust colleagues work together to improve Beauty and Nature on the Doorstep, protecting habitats for wildlife and creating attractive places for people to access nature.”



## Case study: Community rehabilitation on our network

Across England and Wales there is a growing issue with prison overcrowding and current population numbers greatly exceed capacity. There is a need for a long-term strategy to address this at all levels and one strand of the solution is alternatives to custodial sentences for low-level offenders.

Probation and community sentences are increasingly viewed as a good alternative to short-term prison sentences – as well as reducing the prison population they have generally shown to be associated with lower offending rates.

We've developed a national partnership with the Ministry of Justice and His Majesty's Prison & Probation Service to contribute to the delivery of the Government's rehabilitation agenda and increase our operational capacity to improve our network.

Through our community rehabilitation partnership, we aim to provide up to 300,000 hours community payback activity by 2025/26.

People on probation are helping deliver a range of improvements

along our canals, other waterways and waterspaces including vegetation management; lock gate painting; towpath works; graffiti and rubbish removal; and installing signs and benches.

Across the Trust we have probation teams working in 16 areas, across all 6 regions, contributing c50,000 hours a year. The Trust is now the largest partner of the new West Midlands Probation service and has eight teams a week working in partnership with the Trust's regional colleagues in Birmingham, Sandwell, Wolverhampton, Walsall, Nuneaton and Telford. Due to the success of this partnership, we are exploring opportunities in Worcester, Coventry and Stoke-on-Trent.

Our partnership is delivering benefits for the Trust, the Ministry of Justice, the participants involved and wider communities. Teams help deliver our Beauty and Wellbeing on the Doorstep programmes, increase regional capacity to maintain the canals, river navigations, docks and network of reservoirs and improve the physical environment for wildlife as well as visitors and local communities.



## Our partnership is delivering...

Over **1,000** People on Probation engaged so far at 16 sites.



Over **50,000** hours of improvement activity in 2022/23.



Set to increase to **65,000** hours at 25 sites in 2023/24.



Our research also shows there are myriad benefits for participants carrying out the works. We worked with State of Life to evidence the benefits of community rehabilitation on the waterways for those taking part as well as the associated social value. It found that participants doing unpaid work on canals have considerably higher average scores in wellbeing, health, trust, individual development outcomes and nature friendly attitudes compared to their counterparts placed elsewhere.

- **There's an estimated social benefit of £9,550 for every person on probation and total yearly social value of £1.6 million in the Staffordshire region.**

The aim now is to expand the evaluation into a longitudinal study to other regions to inform a national study with the Ministry of Justice. These outcomes reinforce the case for the Trust to continue to be a key partner of choice for delivering Government's rehabilitation agenda with waterside communities benefiting from the improvements and the individuals benefiting from the experience.

“ This year is Community Payback's 50th anniversary and we've built on our ongoing relationship with people on probation working on numerous waterway projects and canal cleanups across the country. These projects are great ways for people on probation to repay their communities while improving our environment and learning skills, including construction, to boost their confidence and employability.”

Caroline Morrison, the Ministry of Justice Head of Unpaid Work Policy, Projects and People





## Case study: Citizen Science Programme

Since 2021, we have been growing our network of citizen scientists who are helping us to gather data and better understand the value of canals for communities.

Working with a variety of charity partners and academic institutions, our projects range from canal-based opportunities such as Otter Spotters, Towpath Surveys, 'Spot that Habitat' and 'Bio-Blitz' to home-based and remote opportunities such as 'Sense in Nature' and 'Rate this Scene'.

Citizen Science projects provide a fantastic 'gateway' opportunity to the Trust as well as being a great way for our supporters, visitors and volunteers to deepen their relationship with us, build skills, confidence and capabilities in new areas and take on additional responsibilities as project advocates, ambassadors and leaders.

Sense in Nature:  
**1,700** citizen scientists completed nature surveys.



**1,624,294** votes cast through 'Rate this Scene'.



The data gathered by our Citizen Scientists is helping to inform our work planning at a local, regional and national level as well as feeding into national counts where it plays a role in shaping policy and practice across the sector.

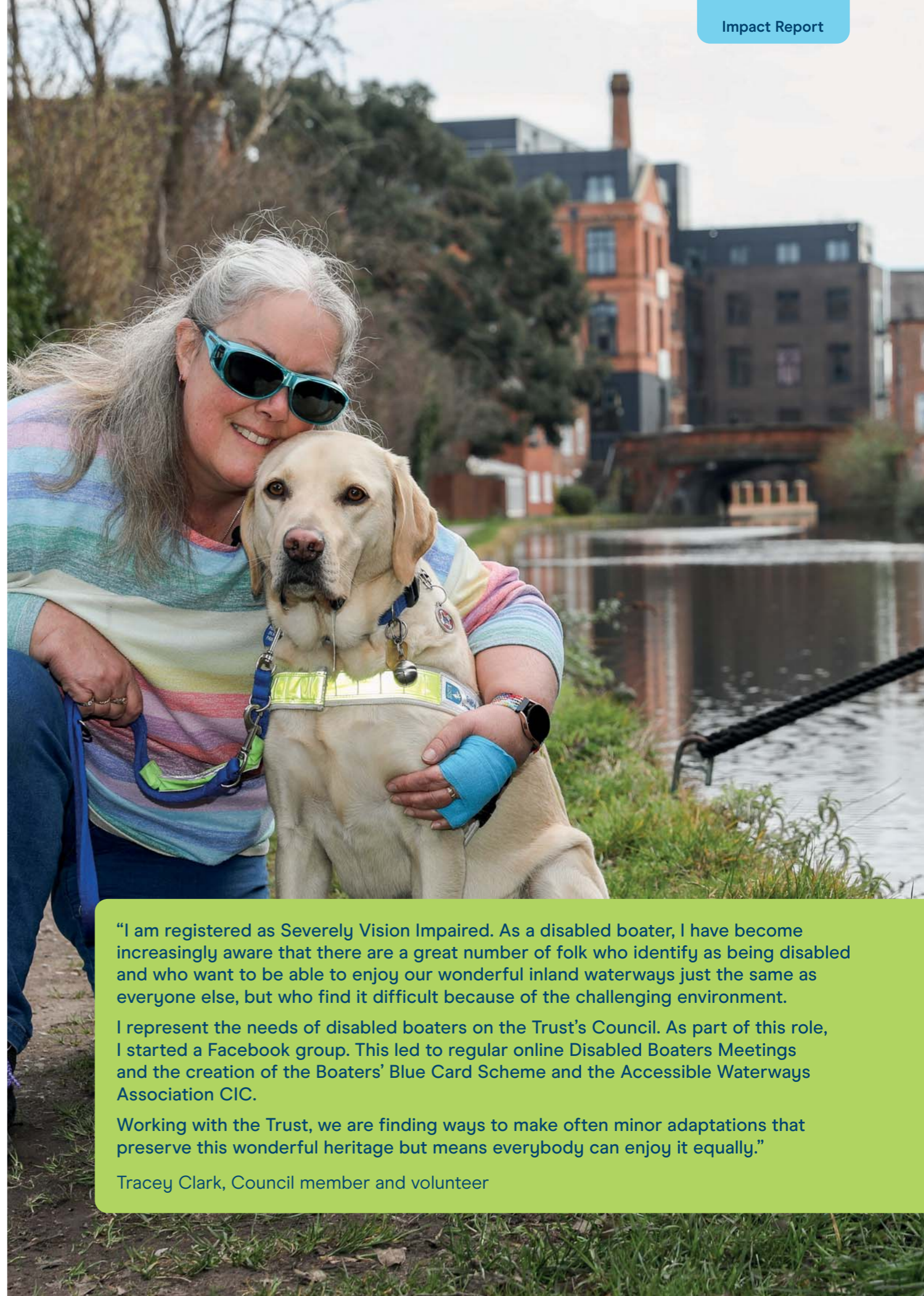
**79,000** Tap that Habitat votes by **3,782** citizen scientists.



Malcolm Gray, Towpath Characterisation Citizen Scientist, volunteers for a project aiming to collect data on the condition and character of our towpath network, and provide a picture of where towpath improvements are required and ensure visitor experience is of a good quality.

"Over the last six months I have completed 500 survey locations. The survey itself involves a photograph of the towpath, several measurements of width and condition and a description of the locality and how it feels to you.

It is quite a pleasant task to complete a survey, meeting walkers and boaters and locals wondering what you are doing, especially on a crisp sunny morning."



"I am registered as Severely Vision Impaired. As a disabled boater, I have become increasingly aware that there are a great number of folk who identify as being disabled and who want to be able to enjoy our wonderful inland waterways just the same as everyone else, but who find it difficult because of the challenging environment.

I represent the needs of disabled boaters on the Trust's Council. As part of this role, I started a Facebook group. This led to regular online Disabled Boaters Meetings and the creation of the Boaters' Blue Card Scheme and the Accessible Waterways Association CIC.

Working with the Trust, we are finding ways to make often minor adaptations that preserve this wonderful heritage but means everybody can enjoy it equally."

Tracey Clark, Council member and volunteer



# Learning and Enhancing Skills



Our canals, river navigations, docks and reservoirs provide a unique space for outdoor learning, connecting with nature, building character and resilience, developing employability skills and preparing for adult life.

2,896 schools and 1.2 million+ young people (15-24 year olds) live within 1km of canal, other waterway or waterspace, many within the most economically disadvantaged areas of England and Wales.

Children and young people across the UK are facing multiple challenges in terms of educational attainment, employment prospects and social mobility. The 'disadvantage gap' – the gap in grades between disadvantaged pupils and their peers which is a leading measure of social mobility in England – is large. Outcomes for the very poorest pupils in long-term poverty have failed to improve after a decade and evidence shows this disadvantage gap can have a lifelong impact on people's life chances and can persist through generations.

## Learning and Enhancing Skills

Amongst waterway communities (households living within 1km), the percentage of people with no qualifications, who are unemployed and who belong to the lowest socio-economic group are all higher than the national average. Our network provides valuable opportunities for engagement, skills development, social action and employment to those experiencing the greatest inequalities across England and Wales.

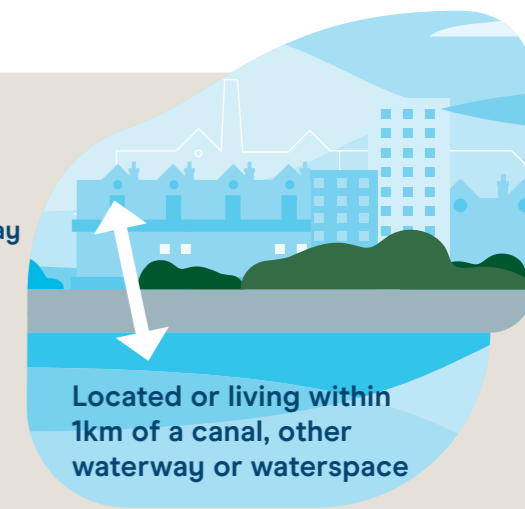
Our insight and evidence-led educational activities are developed through regular consultation with children, young people, teachers, education providers, partners and experts.

**1,316,500** pupils attending schools located within 1km of a canal, other waterway or waterspace.

**1,217,892** 15-24 year olds living within 1km of a canal, other waterway or waterspace (13.8% of the total population).

**19.7%** of adults living within 1km have no qualifications (v national average of 18.2%). (ONS Census)

**4.2%** of adults living within 1km are unemployed (v national average of 3.4%). (ONS Census)



Our programme supports teachers in delivering the National Curriculum and our themes align with the Department for Education's broader strategic framework to ensure every child has the chance to build character and resilience, reach their potential and live a more fulfilled life. Our learning programme is designed to align with wider policy objectives and initiatives.

Our offer supports the cross-government Environmental Improvement Plan (2023), in particular its goals and targets for enhancing beauty, heritage and engagement with the natural environment and the commitment that 'learning in and

about nature to happen at every level of education'.

There is extensive independent and academic research and evidence as to the benefits of outdoor learning to pupils, teachers and schools.

The external factors and policies which have shaped our learning and skills programmes include:

- Learning Outside the Classroom Connecting to Nature – cross-government 25 Year Environment Plan
- PSHE Curriculum
- Barriers to achievement Science Technology Engineering and Maths (STEM)
- Employability and preparation for adult life
- Quality teaching and Continued Professional Development
- Cultural Education
- Water Safety for Children
- Department for Education's initiative on five foundations to build character and resilience





## Learning programmes for children, schools & young people



 **334,453** children benefitted from our self-led learning resources.

**233,060** children took part in our Canal & River Explorers and STEM programmes.



 **154,342** children took part in water safety sessions.



**192** Explorers education volunteers helped deliver learning to children & young people.



## Case study: Forging canal connections through Pocket Adoptions

Through our School Pocket Adoptions, children learn about and engage with their local canal while making it a better place to be.

Schools adopt a small stretch of a canal or river that's local to them, assess its current condition and then suggest ways to improve it. Pupils work with colleagues and volunteers from the Trust and local groups to improve the area. By involving pupils in a range of activities, from street art and litter picking, to planting and habitat creation, children gain a sense of local pride. They take ownership of their canal, build important connections with the local community, develop new skills and learn lots.

**Griffithstown Primary School in Pontypool South Wales**, next to the Monmouthshire & Brecon Canal, took part in our Pocket Canal Adoption scheme.

Cerian Pugh, Deputy Head Teacher: "Despite being so near to the canal and having so much green space around us, many pupils don't visit with their families. As a school we strive to find opportunities for our pupils to gain life experiences and develop skills beyond the classroom and learn from first-hand experience. It's vital for improving pupil mental health and wellbeing too – these are major priorities for us. "We could see that if we encouraged young people to build a relationship with the canal at an early age, it could make them value the canal and take pride in and care for their local area."

The Trust's Pocket Adoption scheme was assigned to the school's Eco club, made up of pupils from years 2-6. Karen Taylor, Eco Club Leader said: "We're working towards an

Eco Schools Award and the School Pocket Adoption is our way of 'looking after our community areas' and 'looking after our world'. The children get so much benefit from their time by the canal. It gives them new life experiences. Last time we saw ducklings and the children were enchanted."

**Hawley Primary School and London Fields Primary School** in London adopted a small stretch of the Regents Canal in 2022. They have worked with a local artist to design a mural, have made habitat improvements, carried out litter picks and added lots of new plants to attract bees and butterflies.

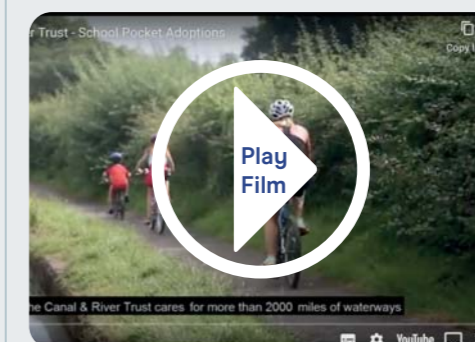
Olga Baron, teacher: "There's so much to talk about and so much to see. It's a really enriching place to inspire children and to help them connect with their local area."

It's really, really important to connect these local children to their local patch and let them feel like they can make a positive change. Seeing their curiosity and enthusiasm grow has been fantastic." Mike Wakeford, Learning and Skills Coordinator, LSE.



“ We want to make it environmentally friendly, so we want to include ‘No littering’ signs and encourage people to take their litter home.”  
Year 3 Eco Club member

“ We want to put a picnic table and a bench, plus a little station with binoculars to see the birds. We want to give people a reason to stop and look around and notice things.”  
Year 6 boy



Watch the film here: <https://youtu.be/ZIDpLg9MFNM>





**“Our visit to the canal today to take part in the Junior Lock Keeping Sessions was such a great experience. The volunteers were so knowledgeable and explained how the locks work in such an easy to understand way. Seeing the boaters move through the locks was a great experience and both my daughter and I learnt so much!”**

Parent

## Learning and Enhancing Skills

### STEM Programme (11-18 years old)

Career aspirations are shaped by a young person’s social background and gender and are often formed at a young age. Children who the have most to gain from real-world experience currently have the least access to it.



Our Learning & Skills portfolio addresses these issues by providing opportunities for children and young people from all backgrounds to engage in real-world experiences and discover more about the work that we do. Our growing STEM programme aligns with findings from research recently commissioned by Engineering UK, which highlights the benefits of employers working with children through schools from an early age, particularly for those from the most challenging backgrounds. The research showed that engaging with employers produces positive educational outcomes (attainment) and that employer engagement

activities benefit pupils, primarily through raising confidence and academic motivation.

We offer opportunities for STEM (science, technology, engineering and maths) spanning all curriculum stages and topic areas – from understanding biological habitats and calculating the physics of water management, to engineering works and modern ecology challenges. Our canals and river navigations can be used to demonstrate how curriculum-based STEM learning applies in the real world and can provide an exciting new environment for learning.





## Case study: Engaging Year 7-9 students at Pedmore High School

Pedmore High school in Stourbridge is situated close to the River Severn and Stour, as well as the Staffordshire & Worcestershire and Stourbridge canals, but very few students are aware of their local waterways.

We delivered our Waterways, Wildlife & Wellbeing workshop as part of a broader STEM careers day for over 100 Year 7-9 students. The workshop focused on ecology, wildlife conservation and environmental impact, introducing students to the work of the Trust, the history of canals and the diverse wildlife surrounding the waterways.



Those leading the workshop talked about their jobs and the pathways they had taken, before encouraging students to take part in experiments to demonstrate how they examine and improve water quality and tackle pollution.

“ I noticed today that Year 8 were struggling with an activity that they would have given up on before the workshop, but they persevered. It has given them resilience, independence, experience of working with others, reading instructions and so much more.”  
Teacher

“As a chartered civil engineer, I like to be part of supporting a more diverse and inclusive industry, making it accessible to a wider demography. I enjoy speaking with school children, giving young people an opportunity to ask about the world of work and helping them consider what they might like to do after school. Combining the message on STEM careers with talking about the Trust is very worthwhile to me. The shortage of qualified engineers is an ongoing issue in the UK and at the Trust it impacts our ability to recruit and retain engineers. I hope that by taking the message that STEM careers are for everyone to the younger generation, I can help make a difference to the industry of tomorrow.”

Nicole Rabier, Principle Engineer and STEM Ambassador



Supported by players of **PEOPLE'S POSTCODE LOTTERY** | Awarded funds from **POSTCODE EARTH TRUST**

**Green Recovery Challenge Fund** | **Waterside Today I have ...** | **Explorers**

1 Heard a duck quack	2 Discovered a pattern on a leaf	3 Spotted a mooring bollard	4 Seen a flying insect
5 Found a safe place for a nest	6 Spotted polluting rubbish	7 Touched wear and tear with my fingers	8 Spotted something black and white
9 Found a long leaf	10 Listened to the sound of rushing water	11 Spotted a bee on a beautiful flower	12 Imagined the view from a very tall tree
13 Seen wooden lock gates	14 Heard bird song	15 Touched rough bricks on a bridge	16 Listened to the sound of wind in trees

Don't forget to wash or sanitize your hands. | How many things did you hear, spot or find today? Add them up and put the total in the box.

Write the name of the canal you visited today

canalrivertrust.org.uk | canalrivertrust.org.uk/explorers

More than 334,000 children have benefited from our self-led learning resources.



Learning and Enhancing Skills

## Learning outside the classroom

Connecting children with nature boosts their health, wellbeing and learning and gives them a lifelong love of the natural world that leads them to cherish and protect it forever.



Our Learning & Skills portfolio presents opportunities for children from all backgrounds to engage with nature and improve the environment, through projects that are rooted in a response to climate change, environmental improvement, sustainable living and improving wellbeing.



**83%** of young people agreed that looking after the environment was important. (Natural England 2022 Survey)



**35%** of young people say they are connected to nature. This increases to 50% for those who visit a canal or river at least once a week. (Canal & River Trust 2023 Survey)



**87%** of children and young people agreed that being in nature made them very happy. (Natural England 2022 Survey)



**75%** of young people agree canals and rivers are vital for biodiversity and wildlife, while 66% agree canals/rivers play a role in protecting the environment. (Canal & River Trust 2023 Survey)

“ We are delighted to be working with the Trust to help develop and deliver programmes that enable more children and young people to benefit from bringing learning to life on their doorstep in their own local environments. It’s a great partnership and one we hope to amplify. The Trust uses its expertise in delivery of engaging, relevant, local activities, and the Council for Learning Outside the Classroom ensures schools, nurseries and colleges can use these activities as a catalyst for a sustainable change in teaching practice, so that students and their teachers can continue to benefit from high quality, regular, and progressive learning beyond the classroom on a daily basis. ”

Dr Anne Hunt, CEO of Council for Learning Outside the Classroom



Children joined a session at Caen Hill, where wetland scrapes and bug hotels were created to protect flora and fauna including rare Common Spotted Orchids and Chaser Dragonflies.





## Case study: Green Recovery Challenge Fund, West Midlands

Thanks to funding from the Green Recovery Challenge Fund, our 'Waterways, Wildlife & Wellbeing' project, in partnership with the Council for Learning Outside the Classroom and supported by the University of Derby's Nature Connectedness Research Group, enabled us to develop a package of support to build teacher confidence to take learning out beyond the classroom into school grounds and along local canals.

We worked with 500 schools in areas of disadvantage across the West Midlands. We helped teachers to increase pupil contact and connectedness with nature and achieve their learning, wellbeing and pro-conservation outcomes. Our curriculum-linked focussed careers advice and real-world employer engagement supported Green Careers and helped to broaden pupil aspirations.

This evidence-led project addressed barriers to outdoor learning and supported nature connectedness. The Council for Learning Outside the Classroom mentored and trained teachers, supporting them throughout their outdoor learning journey.

“Some livelier pupils seem calmer and engrossed with activities. Some quieter pupils engage with their peers more when learning outside.”

Teacher



“The UK has one of the weakest relationships with nature in Europe and the nation is one of the most nature depleted on the planet. Given this and the growing environmental crises, building nature connection across society is essential and children and schools are key. Building teacher confidence and awareness is an essential part of this and applying our research within the project has been an important part of the Nature Connectedness Research Group's work.”

Miles Richardson, Professor of Human Factors and Nature Connectedness, Derby University

We hosted school workshops focussed on ecology and wildlife conservation, and offered practical first-hand experiences, including tree and hedgerow planting events and wildlife surveys. Teachers reported that spending time by local canals encouraged physical activity, improved wellbeing, learning, pro-conservation behaviours and nature connection.

“It's made me a better teacher. It's inspired so many new ideas and made me want to do so much more learning beyond the classroom because I can see the benefits so clearly. Being able to provide this type of benefit to children who don't have the opportunity to spend time outdoors and who may be very restricted in their experiences is extremely satisfying.”

Teacher

Involved **2,500** pupils in canal-based nature conservation activities.

**500** schools engaged in environmental activities.

**163** schools received additional mentoring to embed outdoor learning.

Created **4** apprenticeships and **8** new jobs.



**50%** said outdoor learning is now embedded in their practice.

Over **75%** said it had been effective or very effective in overcoming their barriers to outdoor learning.



## The Council for Learning Outside the Classroom attendees





Learning and Enhancing Skills

# Water safety education

Learning to be safe near water is an important part of every child's education. We ensure water safety messages are clear, consistent, and memorable.

We want children and young people to understand the risks around water and encourage them to make informed and safe decisions. We embed safety messages early and build upon this knowledge over the years, as growing independence increases exposure to risk.

Our canals, river navigations, docks and reservoirs run through some of the most heavily populated communities. We are actively engaged in 21 Water Safety Partnerships across England and Wales; through these partnerships we proactively raise awareness of water safety and drowning prevention within these local communities.

We work alongside Fire & Rescue Services and other water and safety charities such as RLSS, Swim England and RNLI, and we're part of the National Water Safety Forum working to reduce the number of deaths from drowning.



**Since 2021:**

Our Canal & River Explorers team delivered water safety sessions to **154,372** children and distributed over **218,998** water safety activity booklets.



**We supported** the RLSS Don't Drink and Drown campaign.

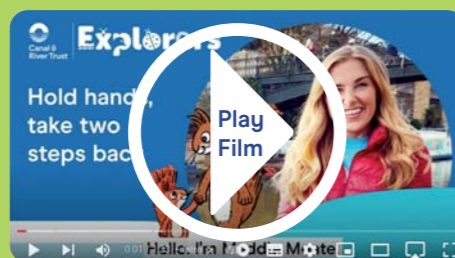
**We launched** our first ever Toddler Water Safety campaign.



“We've been working with the Canal & River Trust for several years. Their support at our Safe+Sound events has ensured a consistent water safety message is delivered to all the children who attend our events. The Trust works with us alongside our other partners such as the RNLI, Staffordshire Police, HSBC Bank, DHL and St. John Ambulance. Our Safe+Sound events deliver five life-skills themed workshops to children in Year Five, four of which are delivered by our partners, and the fifth is fire safety in the home delivered in our immersive interactive pod. We hope to continue working with the Trust on initiatives and engagement events in the future.”

Helen Wood, Education Manager, Staffordshire Fire & Rescue Service

The waterside is fun to go,  
But there are things you need to know.  
Let's stay safe and not be silly,  
The water here is very chilly.  
Find your grown-up, hold their hand,  
Two steps back is where you stand.  
Look out for bugs and ducks that quack,  
But always do it two steps back!



Watch the film here:  
<https://www.youtube.com/watch?v=vRt0TnKhjtE>



Nowka Bais is the traditional form of dragon boat style racing in rural villages of Bangladesh held after the monsoon rains. Celebrations are held each year at Edgbaston Reservoir, Birmingham providing a great opportunity to promote water safety.



Learning and Enhancing Skills

# Apprenticeships & employability experience

Apprenticeships are highly impactful entry-to-work programmes and enable trainees to develop essential work-related skills gaining professional nationally recognised qualifications.

At the Trust, our apprenticeship programmes are helping us to attract new talent into the organisation, diversifying our workforce and

providing valuable skills and opportunities to people from all walks of life.

Since Jan 2021:

**57** apprentices across the Trust.  
**13** of whom have gone on to take up permanent positions at the Trust.

Roles include; Waterway Apprentice, M&E Apprentice, Craft Apprentice, Construction Apprentice, Social Media Apprentice, Cyber Security Apprentice, People Apprentice.



## Case study: Kick-starting a career on our network

As part of the UK Government's Kickstart scheme we have offered six-month placements to 47 young people aged 16-24 who were claiming Universal Credit and at risk of long-term unemployment.

Our programme was nominated by the Department for Work and Pensions for a 'Promoted Diversity and Inclusion' award. The award recognised employers who had actively recruited and developed young people with significant barriers to employment. Thanks to players of People's Postcode Lottery, last year we were able to support four of our Kickstart young people through our apprenticeship scheme.

Holly joined one of our waterways teams via the programme in June 2021 following a period of unemployment. Six months later she was appointed to an apprentice position, where she is continuing her training to be a waterways operative.



"Since I've been there, I've done things I never would have done before. And I've found out what I can do. They team you with different people who are more skilled in different sorts of areas. So we've had a wide experience. And then we can just say to our manager we would like some training on say strimmers for example, or we would like helmsman training. And he's always looking and putting us on different ones. So yeah, it's good. I love the job. It's always different we do loads of different things. So every day is different. I'm always outdoors. The team is great, and my manager is great."

Holly





## Case study: Apprenticeship Programme – Heritage & Conservation Skills

After 20 years of dereliction, a team of Heritage Apprentices helped to transform the Grade II listed main warehouse at Finsley Gate in Burnley into a special canalside place for the local community.

The project was funded by the National Lottery Heritage Fund, European Regional Development Fund, Burnley Borough Council and Canal & River Trust.

Luke shares his experience of being involved in this exciting project:

“I’d like to say that before the apprenticeship I had no idea what I was getting myself into but I’m grateful I took the opportunity. I’ve learned multiple skills through all the college work and with working with experienced stone masons, brick layers and joiners.

“We did a project rebuilding a broken down building on Finsley Wharf and we pretty much re-built it from nothing. We had to take the majority of the building down to re-lay the stones. We had to take the remainder of what was left of the roof off, measure it all up, build a new foundation for it as the old one was deteriorated and now it’s back to a fully functional building.

“I’d say since starting my apprenticeship it has benefited me a lot. I’ve learnt trades I never thought I’d learn and I’ve got a good team behind me and would say it’s been a brilliant experience and one I would recommend to others to take if they get the opportunity.” Luke, Finsley Gate Apprentice, North West.

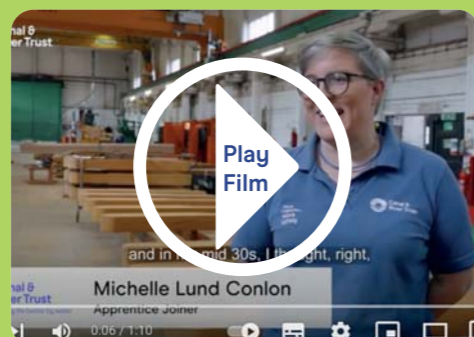


Luke practicing traditional lime mortar techniques at Finsley Gate, Burnley.

## Changing careers – from teacher to joiner

Michelle was previously a teacher. In her mid-30’s she decided it was time for a career change.

Michelle is now on a two-year apprenticeship scheme at our Stanley Ferry Workshops where we hand make our lock gates from sustainably grown oak. She’s the first female joiner in the workshop.



Watch the film here: <https://www.youtube.com/watch?v=nd1Vww9PkfY>

## Apprenticeship of the Year

The National Apprenticeship Awards showcase outstanding employers and apprentices who are committed to championing investment in learning and in future talent pipelines. This year, one of our apprentices, Corinne Spiller who worked as a Digital Marketing Apprentice on the Trust’s Unlocking the Severn Project reached the regional panel stage review of the 2023 National Apprenticeship Awards. Corinne has now gone on to a permanent role within the Trust’s Social Media Team.



“I am so thrilled that my Apprenticeship Awards application made it so far through the judging process. Of course, I’d have loved to have made it all the way, but regardless it was very clear that my achievements on Unlocking the Severn and work during my digital marketing apprenticeship were highly commended, and I’m hugely proud to have had a stand-out application that made it all the way through to the regional finalists judging stage! Hurrah! Doing an apprenticeship with the Trust was not something I had considered before the role on the Unlocking the Severn project came up. But I’m so glad I did the apprenticeship for quite a number of reasons, including the amazing set of skills it has given me: social media marketing, website management, graphic design, copywriting... even my fish ID skills have seen a marked improvement!” Corinne Spiller



# Canals

## A poem by Roy MacFarlane

People used to believe there were canals on Mars.  
Aliens drawing water from ice caps to preserve a world  
drying out. At least they tried to save their world.

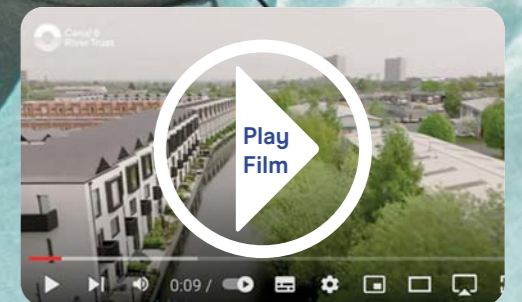
Here in Birmingham, there are loops  
found in the canal networks that take you back  
in time, the shells of yesterday's industry,  
the ghost of steel on concrete floors,  
the cast iron bridges as you enter  
into wastelands.

The regal heron stands tall  
and beckons all who may enter.  
The City of the Golden Gates  
where the Emperor's Palace and gardens  
were found on the top of the hill  
and a never-ending stream flowed  
into a circular canal which fed four canals  
and many waterways across the city of Atlantis.

And in this place of wealth and high society  
was a place called 'The Strangers Home'  
where refugees stayed and were treated  
as guests of the city. I desire every city  
to be filled with canals and a 'Strangers Home.'

City of thousand trades, were navvies,  
built canals by hand, armed with wheelbarrows,  
they picked and shovelled the puddled clay,  
walking and stomping along the way.

I pray that aliens from another abode will peer down  
upon this place, imagine loops and lines of waterways  
in and around a metropolis are more than commercial  
gain and profit. That a canal lined with a 50-mile orchid  
of apple and pear trees threading through the heart of  
a city is another Garden of Eden, where no fruits are  
forbidden and all are welcomed.



Watch the film here:  
<https://youtu.be/fRDdEJSIDss>



# Prosperous and Connected Places



Boating businesses and tourism on our network of canals, river navigations, docks and reservoirs are contributing £1.5 billion per year in added value to the UK economy and support 80,000 jobs.

The UK economy is lacking “economic dynamism” and experiencing high interest rates, continued economic uncertainty and low productivity which are holding back growth. The challenging economic outlook is a key societal concern facing the nation.

Our network of canals, other waterways and waterspaces delivers significant economic benefits and has a substantial contribution to make to UK, regional and local economies across different sectors, including supporting the UK Government’s ambition to provide high-quality broadband connections for all.

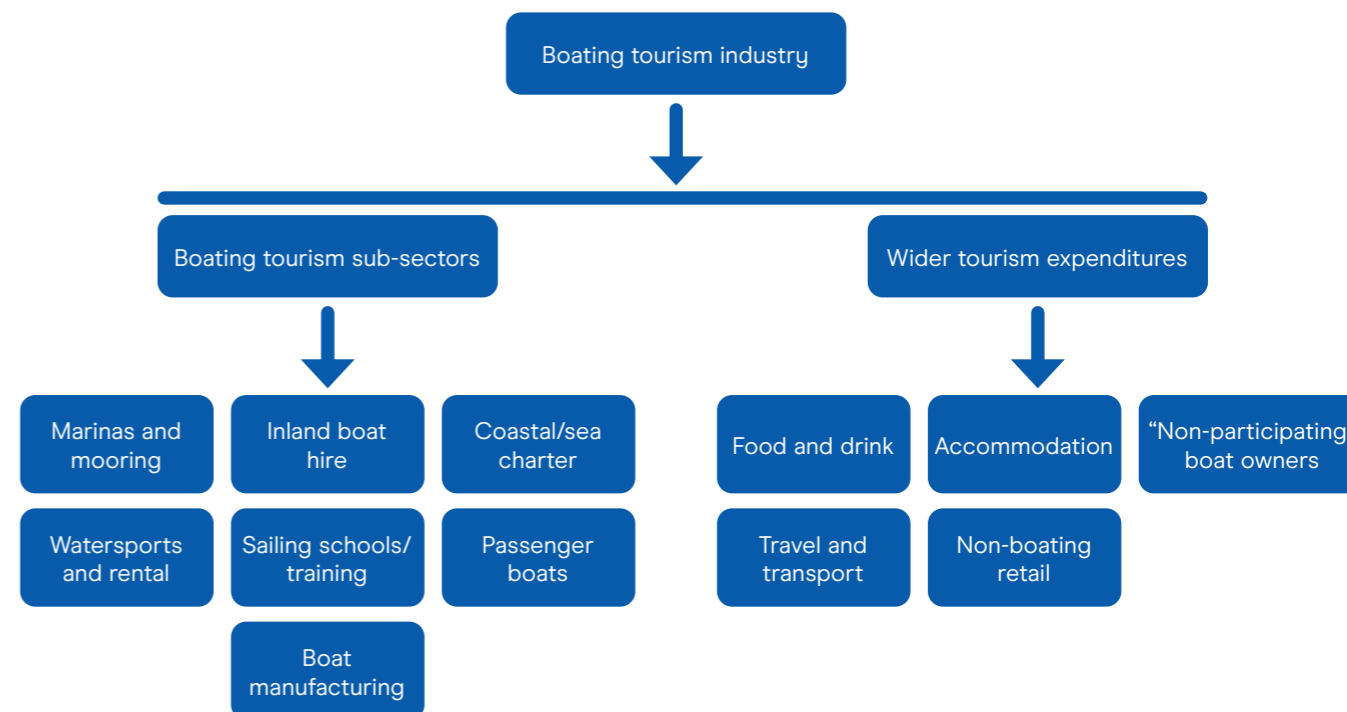
Our network is providing opportunities for waterside development and regeneration, supporting sustainable urban canalside living and levelling up, hosting telecommunications and utilities, as well as supporting boating related tourism and the wider marine economy.

## Prosperous and Connected Places

### Boating & the visitor economy

Businesses deriving their income directly from our network include marinas and boat manufacturers, hire boat companies and watersports providers. In addition to this, our

network attracts significant tourist expenditure through the food and drink sector, accommodation, and the purchase of non-boating retail goods in canal-side museums or shops.





Prosperous and Connected Places



Aqueduct Marina, located 10 miles from Crewe, opened in 2009 and has grown to operate over 150 full length serviced moorings and employs a 40+ strong team. The marina offers a 7 day a week, 'one stop shop', providing services from moorings to boat building, servicing and repairs, brokerage, storage and sales as well as an onsite chandlery and cafe.

Located in a rural community, the marina is an important local employer – supporting local young people through apprenticeships and T-Level schemes, helping to retain valuable skills in the local area.



Phil joined the Marina team, aged 18 and is now the Operations Director with day-to-day responsibility for the Marina.



ABC Leisure Group is a leading operator of canal boats on our network and has been building and operating canal boats for over 45 years. The company owns 18 marinas across the UK – offering boating holidays aboard their 300 narrowboats as well as day hire to both domestic and international visitors. In 2023, 25% of guests were from overseas and the proportion of overseas visitors is expected to rise further in 2024. ABC employs over 140 people, raising to 287 during peak boating season.

Zoe joined the team at Gayton Marina in 1994 when she was employed as a casual cleaner and, almost thirty years later, is the manager of Gayton Marina.

**In 2023, 25% of guests were from overseas and the proportion of overseas visitors is expected to rise further in 2024.**

ABC Leisure Group



**Boating on our canals and navigable rivers is more popular than ever**

Around 450,000 people holiday on Britain's canals each year. Our recent hire boat customer survey revealed that 86% of respondents would definitely recommend holidaying on a hire boat to others, 95% felt their holiday was value for money, and 80% were return visitors.

Heather Hewitt of Union Canal Carriers, based on the Grand Union Canal in Braunston, says:

"We've been running our family-owned narrowboat hire business for over 55 years. In that time we've introduced thousands of people to the delights of narrowboat holidays on the waterways. Many come back year after year and we've watched their children grow up. It's such a pleasure to see our customers returning all happy and relaxed after a holiday on one of our boats."



Prosperous and Connected Places

## Visiting our canals from abroad

Debbie and Brian from South Carolina have been cruising our canals for the past 25 years. Over the years they've introduced 44 fellow Americans – friends, family members and neighbours – to our network.



Debbie and Brian afloat on their hire boat on the Macclesfield canal.

“We can't wait to get back on a plane and meet up with some of the folks from Canal & River Trust at Ellesmere Port. We've obviously met an awful lot of volunteers and always had a great experience with lock keepers and others. I'd love to spend some time volunteering on the canals myself someday. We want to also say to the many folks that we've encountered during our cruises, thank you for helping make our holidays afloat so special.”

## A Swedish perspective

In Summer 2023, Johan Friman and his family took two weeks to cruise the Four Counties Ring on a family hire-boat. For Johan, the appeal of canal boating is its 'wonderful mix of nature, culture, history and a little old-fashioned engineering'.

“When you're a hire-boater, you have very different conversations than you would as an ordinary tourist. You get inspired to look for local history and local stories to give you a better understanding of the whole country.

“It's an empowering feeling to be allowed to drive heavy narrowboats on 200-year-old canals. And just look at the old engineering solutions still working. Examining close hand, the wonders of aqueducts, cuttings, embankments and locks is a real thrill.”

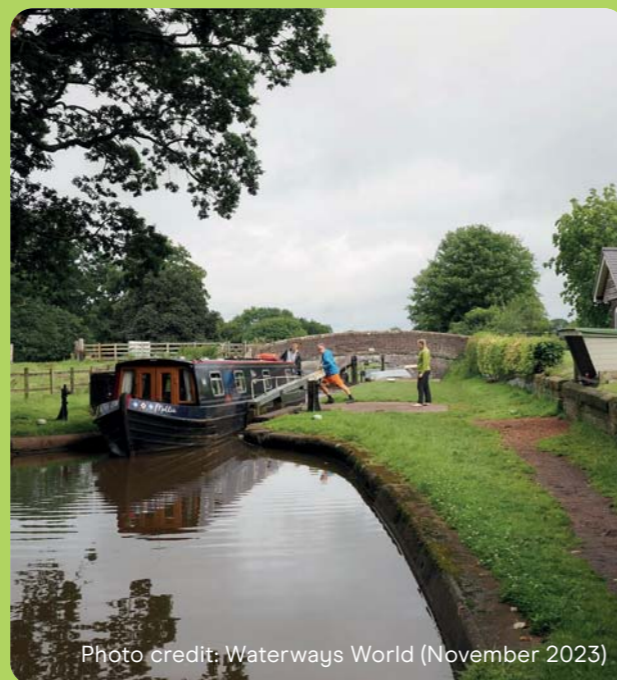


Photo credit: Waterways World (November 2023)

Prosperous and Connected Places

## Our waterway destinations

Our canals represent the finest example of industrial heritage in the world and attract visitors from across the globe. Linking towns, cities, villages and countryside, these thousands of miles of canals and

other waterways tell the story of our nation – the evolution from agriculture to industry to leisure.

Our destinations and museums bring history to life, connecting visitors with the past and with the future.

### Pontcysyllte Aqueduct, North Wales

Opened in 1805, Pontcysyllte Aqueduct and the 11 miles of the Llangollen Canal is a UNESCO World Heritage Site, described as 'a masterpiece of creative genius' by UNESCO and is one of the 'Seven Wonders of the Waterways', regularly featured on TV.

This iconic engineering structure is central to the visitor economy in North Wales, attracting 500,000 UK and international visitors from 52 different countries as well as "close to home and a nice place to come for a cup of tea and a stroll" by the local community.



Watch the film here:  
[https://youtu.be/8YtWK1e\\_hcg](https://youtu.be/8YtWK1e_hcg)

### Foxton Locks, Leicestershire

Foxton Locks, a Grade II\* listed structure, constructed between 1810-1814, are the longest and steepest staircase locks in the UK and considered to be an exceptionally rare and complete example of late Victorian canal engineering.

Over 4,000 boats pass through the locks each year, making it one of the most visited places on our network. The Top Lock Cottage Café, restaurant-pub and the historic canal museum that is home to a series of artefacts and exhibitions all located on the site

make it “a great day out looking at the boats” and “great cycle route. Lots to look at and good places to stop”.





## Sustainable urban canalside living

Our network is a catalyst for development and regeneration in many urban and rural areas, with 78% of those surveyed believing that canals help make our cities, towns and countryside better places to live. (April 2022 – March 2023)

Research conducted by the London School of Economics (Gibbons et al, 2019), on behalf of the Trust, reveals that canalside locations are attractive for developers, making previously vacant or underused waterside sites more viable for redevelopment.

Working in partnership, we have delivered area-based mixed use and housing-led regeneration schemes with over 1,800 new homes delivered from the Trust's surplus land portfolio in 2022/23, making a positive contribution to the Government's housing supply targets and levelling up agenda.

### Case study: Port Loop, a new sustainable canalside neighbourhood in the heart of Birmingham

We have been working with our partners, Birmingham City Council, Urban Splash and Places for People to redevelop a 22-hectare brownfield site into new canalside community in the Ladywood area of Birmingham – located adjacent to the Birmingham Mainline Canal and Edgbaston Reservoir.

The masterplan is based on a vision to create 'a family orientated, sustainable and mixed-use waterside neighbourhood' for up to 1,150 homes where everyone feels a connection to the canal. The site now boasts a community of over 100 homes, a canalside park, leisure centre, art house and floating café and good links to the wider towpath network. Further phases of the development will include moorings and access to the water for paddle sports.

The scheme has won national and regional awards, including the RIBA National Award 2023 and RIBA West Midlands Award 2023, the Housing Design Awards 2021 – 'Healthy Homes' award, and the Placemaking Project of the Year at the Midlands Business Insider Residential Awards 2020.







## Case study: award-winning canalside living at Brent Lock West

Through our Waterside Places joint venture with Muse Developments, we are transforming an area at Brentford Lock West.

Previously dominated by low-grade and vacant commercial buildings with no canalside access or engagement, the striking new waterside neighbourhood will feature improved connectivity with the water.

Historic features, such as the Art-Deco factory frontages have been retained and the framework of the increasingly rare transhipment warehouses have been restored.

The first two phases of this RIBA award-winning development have delivered 307 new homes, across a range of housing types and tenures, as well as providing commercial office space and high-quality public realm. The much-improved towpath has been widened and now includes seating, planting, lighting and a pontoon for launching canoes and paddleboards. This has been instrumental in encouraging greater use of the waterside space, and new service bollards have been installed to ensure visitor moorings are cleaner, quieter and more sustainable. New landscaped 'water gates' provide generous pedestrian links between

the development and the towpath, including one that contains a community orchard and garden. The recently installed pedestrian footbridge will improve links between the development and the wider area, providing new connections to the canal towpath, Robin Grove Park and the train station.

Rooftop allotments, established with the help of health and wellbeing enterprise Cultivate London, community gardens and a double height all-weather community space overlooking the canal are all helping to connect residents. Engagement with the wider community has been improved through links with local sports groups and charities such as Brentford Football Club's Community Sports Trust and local watersports providers, Edge and Active 360.

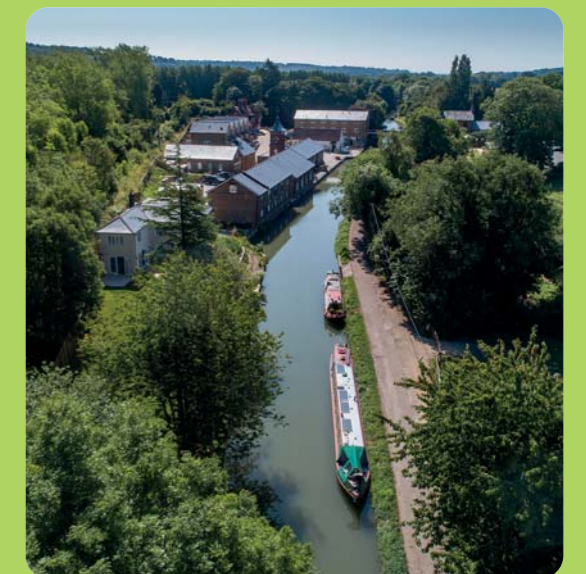
The final phase of the development will provide an additional 452 residential units, as well as food & retail space and a new canoe club looking onto a terraced waterside square.



## Award-winning housing scheme at Bulbourne

Through our joint venture company, H2O Urban in partnership with Bloc we have converted four redundant Grade II listed Victorian canalside warehouses and other

historic buildings at the former lock gate manufacturing yard at Bulbourne on the Grand Union Canal in Buckinghamshire, creating 21 unique new homes.





## Supporting Levelling Up

Regenerating forgotten or under-utilised areas and restoring historic local features helps to reinvigorate local communities and secure better outcomes by providing high-quality and beautiful buildings, restoring a sense of pride in where they live.

These schemes are helping to realise the potential of place, building on its strengths and celebrating what is unique about the local area.

Alongside boosting local productivity, our regeneration and restoration

projects are spreading opportunities through job creation and involving local residents in shaping their surroundings and the future use of these buildings and structures.

### Case study: Montgomery Canal Restoration

The Montgomery Canal is important for its wildlife and heritage. It includes a Special Area of Conservation and a number of Sites of Special Scientific Interest.

It is particularly important for its aquatic plants, but also has nationally scarce insects and many of the birds and mammals that our visitors enjoy seeing on the waterways. There are 128 listed structures on the canal and its rural character is unique and relatively unspoilt.

The once-closed canal now has a new lease of life as a cruiseway through the picturesque Welsh Marches.

With £2.52 million funding from the National Lottery Heritage Fund, we have re-opened a 14-kilometre stretch of the canal from the junction with the busy Llangollen Canal, increasing demand for boating along this newly restored section.

Thanks to £14 million from the Levelling Up Fund, we are now working on the canal near Llanymynech in Powys. This will



see two lowered bridges over the canal replaced with ones that allow navigation, dredging works, aqueduct repairs and the creation of a nature reserve.



Forge before



Forge after

### Case study: Finsley Gate on the Leeds & Liverpool Canal

After 20 years of dereliction, we've transformed the historic buildings at Finsley Gate into a special canalside place for the local community.

The £3.4 million project was funded by the National Lottery Heritage Fund, European Regional Development Fund, Burnley Borough Council and Canal & River Trust. Working with local not-for-profit Finsley Gate Wharf Ltd we have restored and the Grade II listed main warehouse, converting it into a restaurant and café bar. The restored forge provides a community function room, guest house, garden, outdoor classroom space and nature trail. A team of our apprentices also restored a further outbuilding.

Alongside the building works, a community group has been established and the site offers school visits, heritage tours, gardening activities, boat trips, watersports and demonstrations of traditional skills including willow weaving and blacksmithing.



Outbuilding before



Outbuilding after

“

The event was fabulous for supporting the children to collaborate and work as a team. They enjoyed the challenge of creating a boat that could hold cargo. The children demonstrated teamwork and resilience to overcome challenges the task presented.”

Teacher at Cherry Fold Community Primary School



## Connecting & servicing communities

The presence and resilience of our network is important to the UK's energy, telecommunications and water supply networks servicing 13.4 million people and 370k businesses, as well as the banking system and supplying enough water for approximately five million people.

Beneath our towpaths lies a national network of fibre-optic cables carrying vital communications across the country – with over 700km of telecommunication routes / ducting.

Delivering new communication installations within dense urban areas can cause significant disruption to road users. Installing cables deep inside towpaths can mitigate against this impact, and as most works can be undertaken using floating pontoons, towpath routes can remain open during construction and installation.



### HOSTING

Public Road bridges	Towpaths	Public Road bridges	Towpaths
1,136 electricity cables	1,576km electricity cables	374 gas mains	1,302km gas mains
422 water mains and 106 sewers		1,806 telecom cables	659km telecom cables

## Being part of the Fibre Optic Network

In London we have worked with a Code telecommunications operator to install three long-distance data connections, spanning 82km. A further extension along the Grand Union Canal (Paddington Arm) has been designed and is planned for completion in 2024. The latest installation will run for approximately 8km within the towpath from Greenford to Old Oak Common.



## Cooling Data Centres in the Financial Hub, London Docklands

In London PlatformDIGITAL is using our dock water to cool its data centre. Situated in London's Digital Docklands, Cloud House and Cloud House West data centres are powered entirely by renewable and carbon-free energy from Millwall Docks. The water source heat pump takes water from the Dock, transfers the heat and returns the water to the dock.





# Green and Blue Futures



Our canals, river navigations, docks and reservoirs are nationally important infrastructure, helping to mitigate the effects of climate change and support energy and water security.

Along with supplying enough water for approximately five million people, they keep cities and urban areas cool in the summer and they protect our homes and businesses from flooding. This 'public protection value' is estimated at £42 billion.

The World Economic Forum (2023) ranks natural disasters and extreme weather events, the failure of climate change adaptation and biodiversity and ecosystem collapse in the top five global risks expected within the next 10 years. In the UK, the summer heatwave of July 2022 set new records with temperatures exceeding 40°C for the very first time, resulting in significant consequences for people and nature. (Climate Change Committee 2023)

With the world struggling to meet the carbon dioxide emission reductions required to keep global temperatures below the recommended 1.5°C threshold, climate threats are likely to become more prevalent in the coming years.

## Green and Blue Futures

The UK Government is focussed upon enhancing energy and water security, seizing the economic opportunities of the transition, and delivering Net Zero by 2050.

The presence and resilience of our network is important to the UK's energy, telecommunications and water supply networks servicing 13.4 million people and 370k businesses as well as the banking system. There is huge potential to utilise our canals and docks for warming and cooling purposes.

Our canals and docks have a vital role in both mitigating the effects of climate change and in providing innovative passive and active solutions to the climate hazards we are likely to face. As a ready-made blue-green infrastructure network, canals, other waterways and waterspaces contribute to the fight against climate change by:



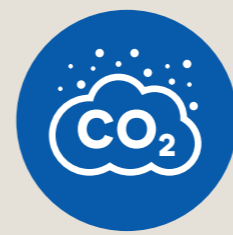
Balancing the availability of water through water transfers, saving cost and carbon



Generating hydropower for around 6,200 homes, saving around 9,500 tonnes of CO<sub>2</sub>



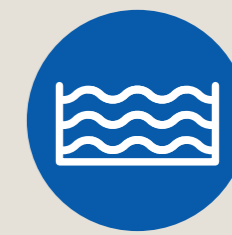
Moving freight off roads onto our larger commercial waterways



Heating and cooling needs of around 350,000 homes, saving over one million tonnes of CO<sub>2</sub> per year



Supplying water to 5 million homes



Providing flooding relief and water storage



Providing vital green corridors for nature



Providing active travel routes for walking and cycling



Mitigating the impact of flooding

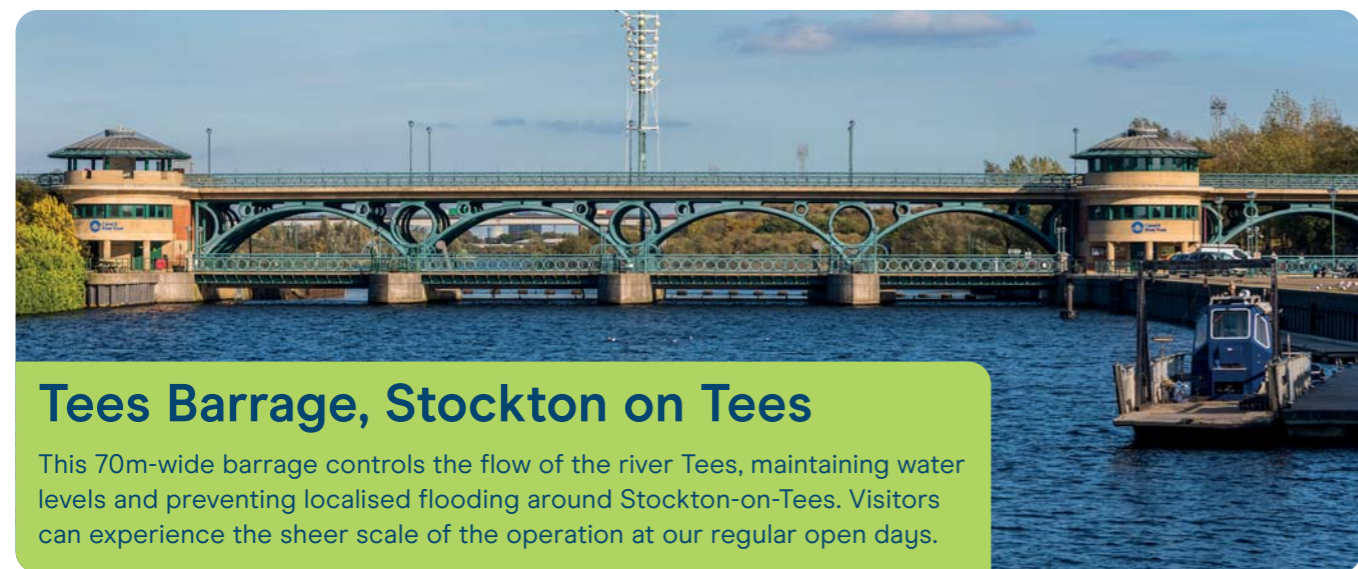


## Flood protection offered by our embankments and reservoirs

The reservoir dams and canal embankments maintained by the Trust protect many households, properties, a wide range of businesses, telecommunications and utilities as well as other national infrastructure such as electricity sub-stations, transport and schools.

### PROTECTING

Embankment	Reservoir	Embankment	Reservoir
840 sub stations protected	387 sub stations protected	370,294 people protected	193,663 people protected
128 schools protected	34 schools protected	31,881 businesses protected	
Railways protected at 570 locations	Railways protected at 55 locations	122,428 properties protected	80,693 properties protected
Motorways protected at 114 locations	Motorways protected at 18 locations		



### Tees Barrage, Stockton on Tees

This 70m-wide barrage controls the flow of the river Tees, maintaining water levels and preventing localised flooding around Stockton-on-Tees. Visitors can experience the sheer scale of the operation at our regular open days.

## Case study: Canal Feeder preventing flooding during Storm Babet, October 2023

During Storm Babet, we fully opened our feeder sluice to take extra water in to the Chesterfield Canal at Worksop, which supported the Environment Agency in reducing levels in the River Ryton.



In Retford, out of hours staff manned locks to feed water through the system. This allowed the Environment Agency to pump flood water from the River Idle into the Chesterfield Canal as it had overtopped their flood defences. The downstream section of the canal took a significant amount of water away from populated areas. Careful flow management by our colleagues ensured the canal did not overtop and water was eventually released into the River Trent at West Stockwith.

The Environment Agency estimated that had we not taken on the water, at least 50 more families would have been evacuated and homes flooded.

“ Could I extend my thanks to the Canal & River Trust for the part they played in dealing with the recent flood events in Bassetlaw. The role the Trust played within the partnership response to the flooding ensured that the impacts were minimised as much as possible and I would therefore, on behalf of the Council and residents of Bassetlaw, like to thank the whole team for the work you did at this very difficult time.”

David Armiger, the CEO of Bassetlaw District Council

## Case study: Rochdale Canal and the Mytholmroyd Flood Alleviation Scheme

The Mytholmroyd Flood Alleviation Scheme was developed by the Environment Agency in partnership with Calderdale Council, Canal & River Trust and the local community.

The scheme utilises the Rochdale Canal which runs through the village of Mytholmroyd, in the Upper Calder Valley in West Yorkshire. The valley is vulnerable to flash flooding and has suffered significant flooding events in 2012, 2015 and 2020 which posed a significant risk to life.

The £41 million Flood Alleviation Scheme was officially opened in October 2021 and provides 4,000 residents, local businesses, infrastructure, schools and other public amenities with greater flood protection.

This flood alleviation scheme is utilising approximately 1.3 km of the Rochdale Canal as an overflow system. Flood

waters are discharged from the canal at the new overflow weir (at the eastern end of Brearley Fields), down an embankment and into a flood plain. Excess flood water is now directed into the canal and transported down to the weir.



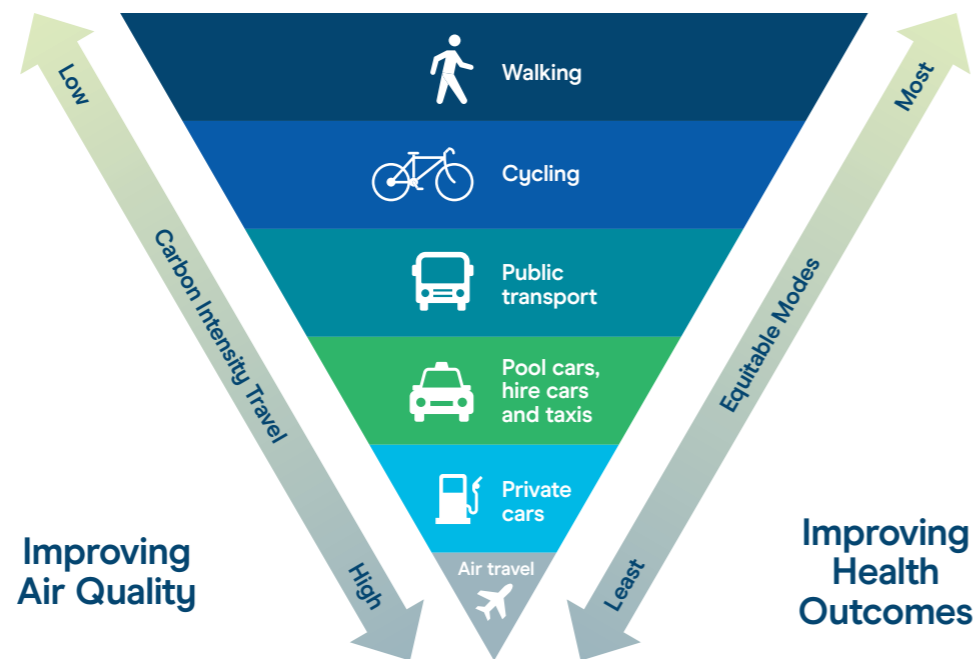


## Active travel

Towpaths are an important component of the 'natural health service' and play a key role in providing sustainable transport across England and Wales.

By moving a commuter out of a car and onto the towpath we can save an average of 0.8 tonnes of CO<sub>2</sub> a year per commuter.

Using our network for active travel and recreational usage is saving up to 65,663 quality adjusted life years (QALYs) per annum.



## Grand Union Canal Towpath Improvement Scheme, Leighton Buzzard

Working with our partner, Sustrans, and with £500,000 funding from the Department of Transport, in 2022 we upgraded 2.9km of towpath along the Grand Union Canal in Leighton

Buzzard. The scheme involved widening the towpath and improving its surface, new signage, vegetation management and hedge planting to enhance the local biodiversity.



Before



After

## Case study: 'Beat the Street' Initiative on canal towpaths

With a shared goal of connecting local people to blue spaces to increase physical activity and improve wellbeing, our partnership with Intelligent Health has supported the delivery of 'Beat the Street' programmes across the canal towpath network, including in Blaby, Leicester, Sefton, Burnley, Dudley and Birmingham.

'Beat the Street' is a tool designed to connect individuals with their local environment and make physical activity and active travel an enjoyable, integral part of everyday life.

In Bootle, we partnered with Intelligent Health, Natural England, and Sefton School Sports Partnership to deliver our 'Beat the Street' programme, encouraging people to explore their local canals and green spaces, embrace active travel and reduce car reliance.

We placed Beat Boxes along active routes to schools and workplaces, including our towpaths. The boxes, usually placed on lamp posts, have sensors that record journeys. Participants were given a card and map. The aim of the game is to rack up as many visits and miles as possible to score points.

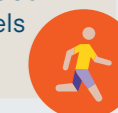


### Key achievements of the Bootle programme:

3,800 participants covered 44,000 miles.



10% increase in adults meeting recommended physical activity levels (150 mins per week).



There was a 13% surge in towpath use among children.



A 3% rise in the children achieving 60+ minutes of daily activity.



“Parents said children are getting up earlier and asking to leave earlier so they can walk 'the long way round' to get to more 'Beat Boxes' on the way to school.”

Year 3 teacher

“It got me doing more exercise plus I spent time with my family and friends and it was fun to go together.”

Girl, aged 11 and under

“We have been working with the Canal & River Trust since 2020 when we launched the first canal focused Beat the Street game in Blaby. Since then we have continued to grow our partnership, working in diverse communities across England and Wales and helping people of all ages improve their health and wellbeing through physical activities. The Trust's network of canals and navigable rivers provides the ideal space for Beat the Street games as they are on the doorstep of so many communities and offer open and accessible places for people to walk, cycle and run, helping them to make healthy choices and build healthy habits for life.”

Dr William Bird, CEO and founder of Intelligent Health who developed Beat the Street



## Case study: Trent & Mersey Canal Towpath Improvement Scheme, Fradley

Fradley Junction, where the Coventry Canal joins the Trent & Mersey Canal, is a popular destination for visitors exploring the canal and Fradley Pool Nature Reserve.

The towpath from Fradley Junction towards Kings Bromley Wharf and beyond is a widely used routeway to discover the local area.

The towpath has been almost impassable during the wet winter months. In 2023 with funding from the High Speed 2 Road Safety Fund and Staffordshire County Council Road Safety Fund, we installed a new 2.9km surface material to provide an all-year round, accessible path to encourage people visiting the area to travel on foot or on wheels. A grass verge has been retained between the water's edge and the new towpath surface, providing valuable grassland habitat.



Before



After

## Case study: Grand Union Canal Towpath Improvement Scheme, Loughborough

The Grand Union Canal towpath links surrounding residential areas with Loughborough's town centre and the train station.

The canal towpath offers a sustainable active travel route for commuters, shoppers, and visitors as well as providing access to nature and sport and recreation opportunities, on and by the water, for local communities.

In Spring 2023 we undertook improvement works to the canal towpath. This £885,000 Town Deal funded project has improved 2km of the waterway through the town centre by upgrading the surfacing to provide a consistent high standard finish. Improved signage, wayfinding and access points were also introduced, 100m of canal bank improved and new moorings for visiting boats installed.



Before



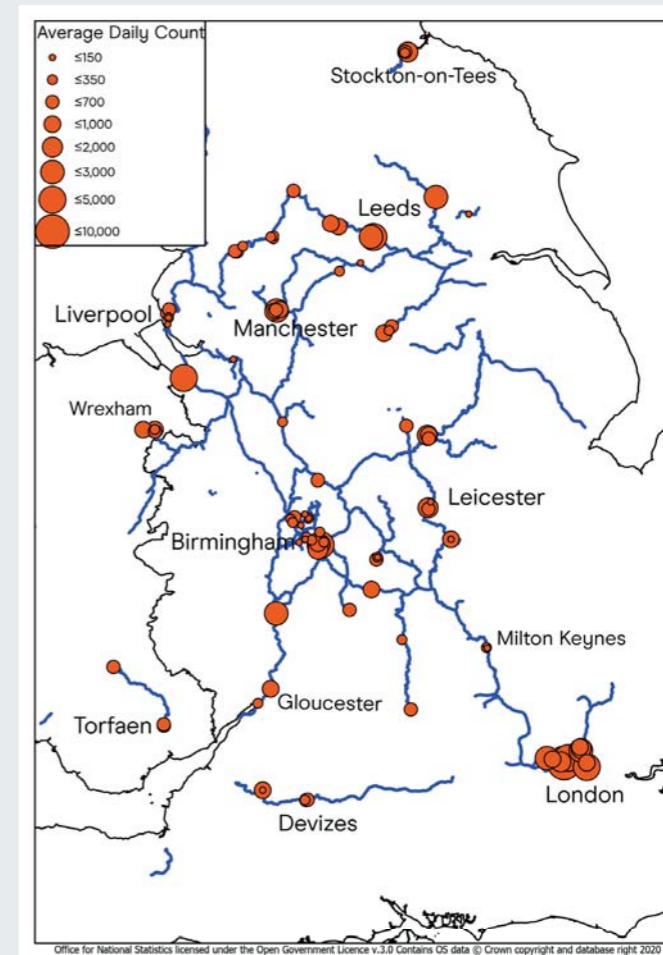
After

## Case study: Installation of towpath sensors

With the support of Tracsis Plc we have installed 130 towpath sensors in key locations along our canal towpath network including in high footfall urban areas such as city centres, at our ten outcome focus areas and at our key visitor destination sites.

Our network of towpath sensors provide accurate real-time towpath usage data at key locations. This is proving an invaluable tool in helping us to better understand uplifts in towpath usage following completion of towpath improvement works.

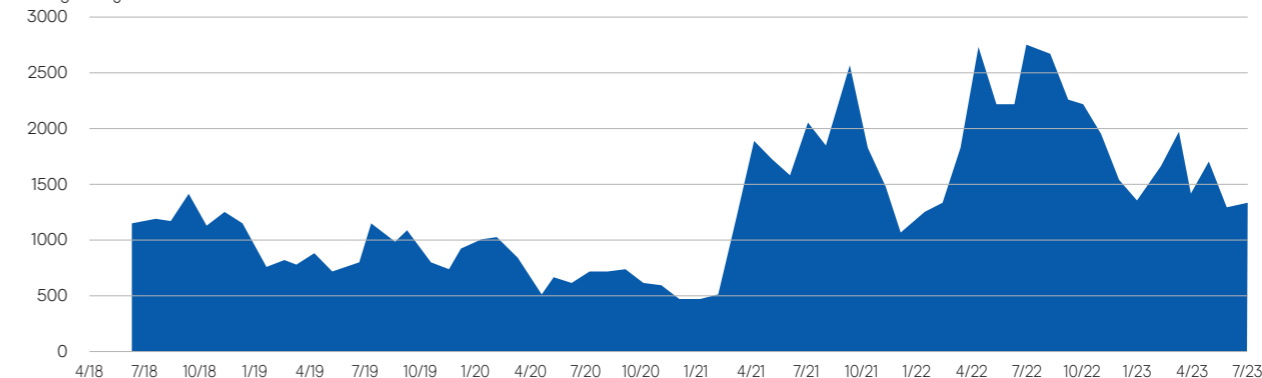
The sensors use machine learning algorithms to count the volume of towpath users and visitors in real-time and the sensor software can differentiate between the range of users by activity as well as demonstrating the seasonality effects of towpath usage and the patterns of use throughout the day.



### Sheffield

Sheffield Canal Basin

Average Daily Count



### Who uses our towpaths





## Sustainable transport – waterborne freight

Moving freight from roads and onto our network of canals, river navigations and docks plays a key role in reducing the number of road

haulage miles and contributes to reduced road congestion, greenhouse gas emissions and noise while helping to improve air quality.

### Inland Port of Leeds

500 tonnes of marine dredged aggregate are carried on the canal system from Goole to Knostrop wharf in Leeds. The barge capacity is equivalent to around 18 lorry loads, so this solution means c.1,500 fewer lorry trips each year.



“Moving freight by water makes economic and environmental sense. Our inland waterways connect many large centres of population to each other as well as those conurbations to many major UK ports. Waterborne freight carriage reduces environmental impact of emissions and noise and the economic costs of congestion and accidents. However, the current tonnages carried are just a small amount when you consider the tonnages that could be moved on our inland waterways if they were to realise their freight carrying potential.”

Tim West, Vice Chairman of the Commercial Boat Operators Association

## Waterborne Freight on the River Severn



The Severn operation carries 700 tonnes of marine dredged aggregate daily on the canal system from Ryall Quarry to Ripple wharf (concrete manufacturing site). The barge capacity of 350 tonnes is equivalent to around 12.5 lorry loads. Transporting the aggregate this way means we are removing c.10,250 lorries from the roads each year.

## Exol Pride lubricant barge operating on the Aire & Calder Navigation & the South Yorkshire Navigations

Twice a week, the Exol Barge carries 400 tonnes of lubricating oil from Hull docks along the canal to the bulk blending facility at Rotherham. The barge capacity is equivalent to approximately 16 lorry loads, taking c.720 lorries off the roads each year.





## Supporting decarbonisation

Decarbonisation is a critical aspect of global efforts to address climate change and transition towards a more sustainable and environmentally friendly future.

The UK government has set an ambitious target to reduce carbon emissions by 68% by 2030 compared to 1990 levels.

Our network of canals, river navigations, docks and reservoirs sited in the hearts of our towns and cities is perfectly placed to provide 'net zero' solutions and help to achieve a more resilient and sustainable planet.

### Case study: Using our network to generate green electricity

Constructed in 1874, the Grade II listed sluices on the River Weaver at Dutton, Cheshire are helping to power the future via a low-head hydroelectric plant installed by our partner, Nether Dutton Hydro Limited. The energy produced by the scheme is exported to the local electricity grid where it is then distributed to homes and businesses. As part of the project, a bristle eel pass has been installed which in effect acts as another sluice, assisting further with water control.



Output up to 200kw



Estimated generation of 900,000kwh per year of green energy



Equivalent to 150 homes off the grid



190 tonnes of CO<sub>2</sub> saving



### Case study: Using our network to heat the historic York Guildhall building

York Guildhall dates back to the 15th century and in 2021 required major structural renovation to develop it as a meeting and events space for businesses in the city.

The £21 million renovation project funded by York City Council included a water source heat pump to deliver a long-term sustainable heating solution for the building.

The water source heat pump takes water from the Ouse Navigation, heat is transferred to the Guildhall, before the water is returned to the river. The heat pump converts the temperature of the water from about 5°C to 45°C.



The carbon savings from using the heat pump are estimated at 40 tonnes per year when compared to the previous gas boiler.

### Case study: Reducing energy use at our pumping stations

Pumping water to keep our canals topped up accounts for 25-33% of our annual electricity use and around 20% of our carbon emissions.

As part of the EU funded 'Green WIN Project' we are working with our partners – Waterways Ireland, Voies Navigables de France, the University of Liege, Arcadis and inland waterways experts across north-west Europe to investigate opportunities to reduce energy use. Using a test tank at the University of Liege the consortium has conducted a series of trials on different pumps and control systems. Using this knowledge 'live' test sites were established at 11 locations in France, Ireland and the UK.



We estimate that improvements at our pumping station sites at Cean Hill in Devizes, Tinsley in Sheffield and Calcutt near Southam could reduce energy use by 15-20%, saving over 112 tonnes of CO<sub>2</sub> emissions a year.






### Case study: Heating Mersey Heat, a new energy centre


Water from Leeds & Liverpool Canal will be a vital component of Peel NRE's Energy Supply Company which will see a district heating network supplying more than 9,000 homes and 4 million sq ft of commercial space at Liverpool Waters and other nearby buildings.

Water source heat pumps and thermal stores will provide energy for the new district, heating the new network. The water source heat pumps (6MW in total) will take water from the Leeds & Liverpool Canal before returning it to Peel's dock system.

The heat pumps will be one of the UK's largest installations and the energy centre is expected to be operational in autumn 2024.

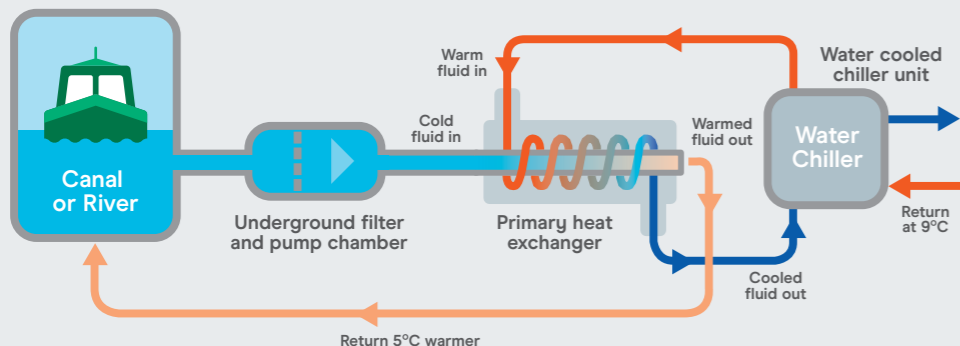


**The heat pumps will save 4,200 tonnes of carbon per year**



**Low carbon heat to 9,000 homes and 4 million sq ft of commercial space**

### Water-Sourced Heating and Cooling



## Keeping cities & urban areas cool as temperatures rise

'Urban heat island effect' plus a warming climate threatens to make summers intolerable in many metropolitan and urban areas in the UK.

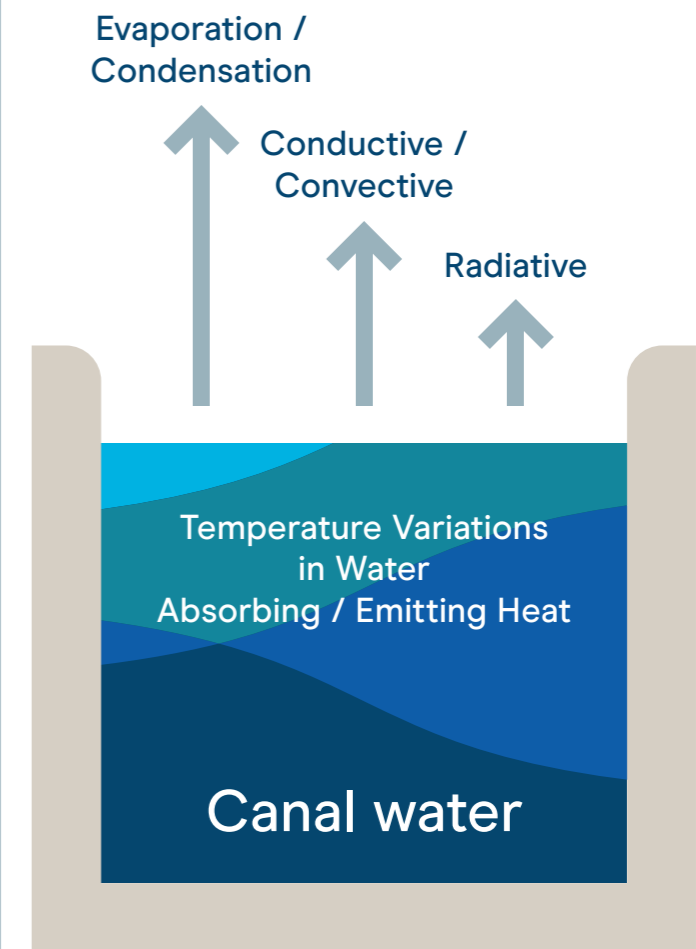


### Our research

'Urban heat islands' occur in metropolitan and urban areas with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs, air pollution levels, and heat-related illness and mortality.

We have worked with the University of Manchester, to understand the extent to which canals contribute to urban cooling and whether canals in urban areas have a positive impact upon lowering local air temperatures.

The modelling work conducted across Birmingham, London and Manchester shows reductions in summer temperatures of up to 1.6°C, without undesirable cooling in winter.



Heat energy inputs and outputs from the canal (Adapted from Lu (2008))



The canals in our cities were a product of the Industrial Revolution, a time of great innovation. Adapting to climate change will require new thinking and ways of working, and this research shows the importance of working across disciplines and in partnership. Bringing together our industrial heritage with new technologies and cutting-edge research like this can help us create urban areas where people and nature thrive in a more sustainable future.”

Dr Joanne Tippett, lead project researcher from the University of Manchester



## Water transfer & supply

Increased temperatures due to climate change will exacerbate water stress in the coming years. Water shortages in some areas of the UK are a serious risk, with some parts of the country facing significant drought while neighbouring areas have surplus water.

Our network of canals can help mitigate water shortages by transferring water from areas with a

surplus to those with higher levels of water stress.

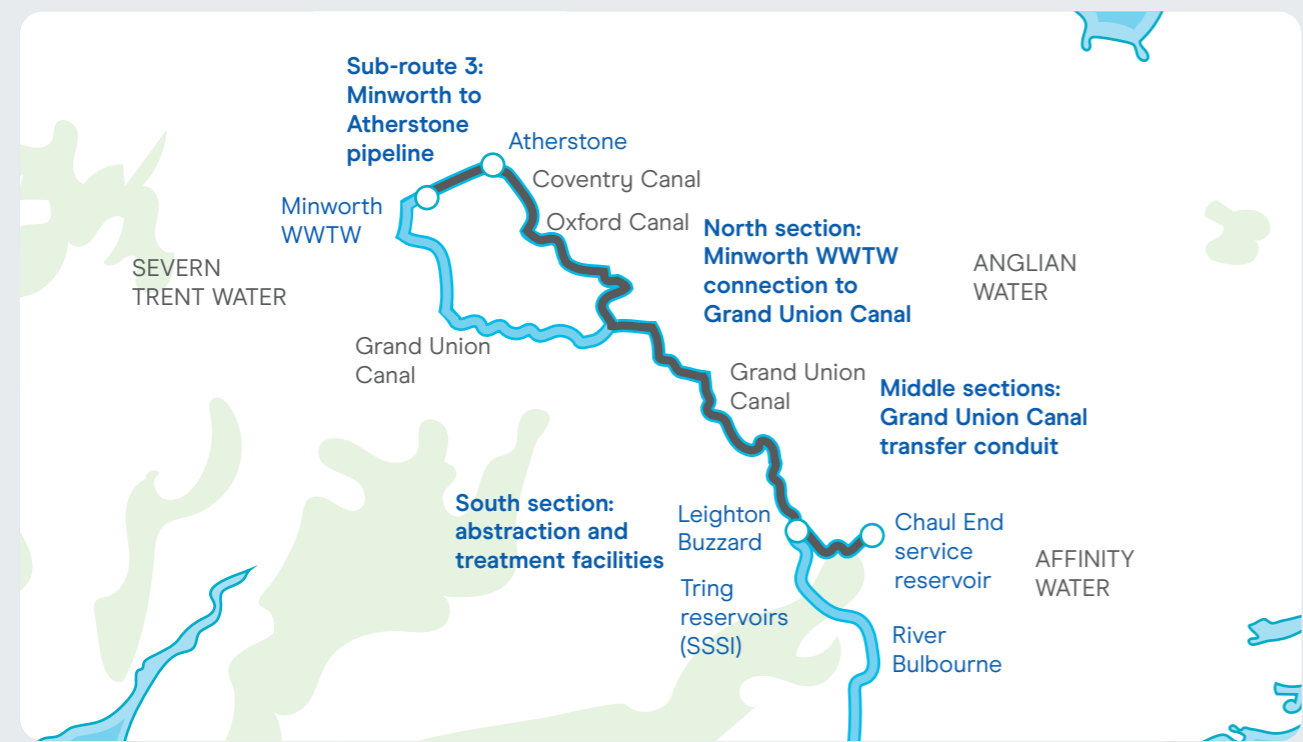
### Case study: Water transfer for drinking water supply

Since 2019 we have worked with Severn Trent Water and Affinity Water to develop plans to use the canal network to transfer surplus raw water from Birmingham to Leighton Buzzard.

Using the network of canals provides a viable and cost-effective route to ensure Affinity Water and Severn Trent Water can combat future risks of climate change by improving their drought resilience.

The scheme will involve transferring 115 million litres of enhanced treated

water per day – enough for over 700,000 residents – from Severn Trent’s Minworth facility on the East of Birmingham along 131km of canals to a site near Leighton Buzzard. Here it will be abstracted and treated before going into Affinity Water’s public water supply distribution system.



### Case study: Water transfer for cooling gas-fired power station at Keadby

The Trust is transferring and supplying water from Stainforth & Keadby Canal for use in cooling the most efficient gas-fired power station in Europe.

SSE is a leading generator of renewable electricity and one of the largest electricity network companies in the UK. SSE Thermal’s Keadby2 gas-fired power station (893 MW) project in North Lincolnshire officially entered its commercial operational phase in March 2023.

With the ability to reach full power in just 30 minutes, Keadby2 can provide important flexibility for the electricity system, complementing the increasing amounts of renewable generation on the grid.

SSE Thermal and Equinor are currently developing Keadby 3, which could become the UK’s first power station equipped with carbon capture technology. With an electrical output of up to 910MW, Keadby 3 Carbon Capture Power Station will use natural gas as its fuel and will be fitted with a carbon capture plant to remove the CO<sub>2</sub> from its emissions.



Water that currently enters the River Trent Navigation from the Stainforth & Keadby Canal will be used to supply the power station by modifying Keadby Lock gate to stop the water from spilling over the weir. Keadby 3 is expected to offset at least 1.5MT of CO<sub>2</sub> – 5% of the Government’s target. In December 2022, Keadby 3 became the first power CCS project in the UK to gain planning consent.





# Cultural and Environmental Assets



Home to globally renowned canals and the third largest heritage estate in the UK, our open access network is the UK's longest linear green-blue space and a vital part of the nation's nature recovery network.

## A changing climate impacting on heritage and biodiversity in the UK

As a result of climate change, the UK is experiencing more severe weather patterns which is the greatest threat to the nation's built heritage and biodiversity. The UK is already one of the world's most nature-depleted countries, being in the bottom 10% globally for biodiversity, with just 53% of its biodiversity remaining – far below the global average of 75%.



### Cultural and Environmental Assets

## Our heritage estate & stewardship

In the 18th and 19th centuries, our canals changed our nation's fortunes. Today, this network is recognised as one of the finest working examples of industrial heritage in the world.

As the custodian of these culture and heritage assets, the Trust conserves, promotes and provides open access to this historic network. These are valued and enjoyed by individuals and communities along with domestic and international visitors.

2023 marks 25 years since the first national Heritage at Risk Register managed by Historic England. This first register listed 125 waterway heritage assets as being 'at risk'. Over the intervening years, we have systematically reduced this

number and today, only one heritage asset remains on the list – Hanwell Lock Flight.

However, the impact of changing weather patterns upon a fragile and ageing infrastructure is making the task of keeping our historic canal network open, safe and resilient increasingly challenging. To maximise the benefits from our historic estate and rich cultural heritage, we must balance competing needs, adopt different ways of working and embrace innovation.

Our waterways heritage is a collection of:



Iconic buildings and structures such as Anderton Boat Lift, Pontcysyllte Aqueduct



Everyday heritage such as locks and arched accommodation bridges



Canal furniture, fittings and the marks of time such as 200-year-old rope marks from horse-drawn canalboats



Historic boats and other artefacts



Associated knowledge, skills and maintenance techniques

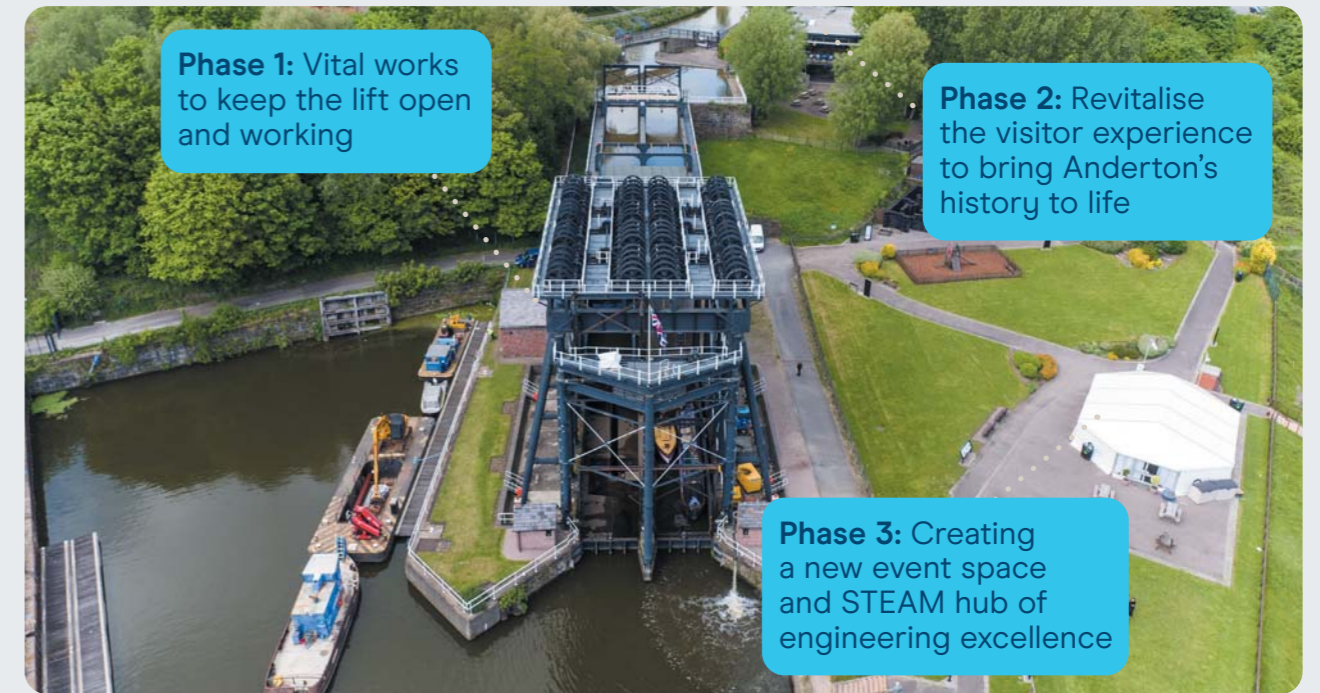
**Globally renowned heritage**  
third largest heritage estate

<b>2,705</b> Listed Buildings	<b>304</b> Conservation Areas	<b>6</b> Historic Battlefields
<b>46</b> Scheduled Ancient Monuments	<b>7</b> Historic Parks and Gardens	<b>4</b> World Heritage Sites





## Stewardship of our iconic and everyday heritage



### Case study: Anderton Boat Lift, near Northwich

Cheshire's 'Cathedral of Canals' Anderton Boat Lift was the world's first major commercial boat lift. Opened in 1875 to connect the Trent & Mersey Canal with the River Weaver Navigation 50 feet below, it is now a protected Scheduled Monument and recognised as one of the Seven Wonders of the Waterways.

Originally built to transport salt and other goods, today it is a popular tourist attraction, learning and community outreach centre and provides a vital connection for leisure boaters – carrying around 3,000 boats through the lift each year, including the Trust's own Edwin Clark Trip Boat.

Maintaining this historic lift has always been a challenge. In the early 1900s, saltwater caused corrosion of the ironwork. This led to its conversion to an electric pulley system in 1908. In 1983, it was declared unsafe and shut down for nearly 20 years before a major restoration project brought it back to life in 2002. Now, two decades on, the lift needs further attention to keep it operational.

An interim emergency £450,000 repair package was carried out over the winter of 2022/23 to replace the gate safety systems and refurbish the two giant hydraulic rams. We are currently developing a major £13.5 million project to upgrade the lift and wider visitor experience.

In December 2022, we were awarded a £574,000 grant from the National Lottery Heritage Fund to support the project's development phase and we are looking to launch a public appeal and secure further funding from a variety of sources, including trusts, foundations, and a further Lottery application to #KeepAndertonBoatLiftAlive.





**Keeping heritage alive and supporting active travel in London**

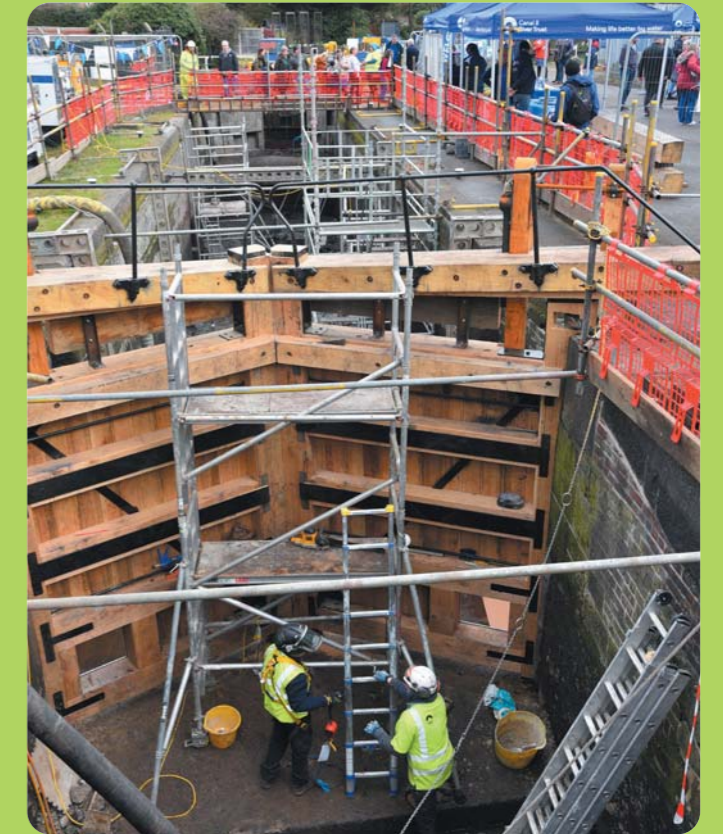
### Dead Dog Basin Footbridge on Regent's Canal in Camden, London

Funding from the players of People's Postcode Lottery has supported 37 improvement projects on our canals including a programme of repairs to the Grade II Listed Interchange Basin Towpath Bridge, more commonly known as 'Dead Dog Basin' Bridge, on the Regent's Canal in Camden. Built in 1846, it is the busiest canal footbridge in the country, with over one million feet or wheels crossing it each year.

### Cultural and Environmental Assets

### Gallows Lane lock gate replacement

Originally built in 1779 Gallows Lane Lock is one of 14 locks on the 15-mile-long Erewash Canal. In 2023 we spent £204,000 improving this 244-year-old structure, safeguarding its future. Work included installing new bottom lock gates, repairing brickwork in the lock chamber, modifying the ladder and repairing the paddle. During this extensive work we installed a viewing platform allowing visitors to view the empty lock and watch the repair work.



### Repairing bridge strikes

Hump-back bridges are synonymous with Britain's canal network and were built to allow horse-drawn carts to cross the canal. Every year there are around 175 bridge strikes from vehicles, costing us approximately £1 million in repair work per year. Most accidents are 'hit and run', leaving us unable to recoup the cost of the damage and diverting vital funds away from our work to conserve our historic network.





# Come walk this way

## A poem by Roy McFarlane

Returning to the paths  
well known, trodden and overrun, they welcome me  
and say, come walk this way.

I'm 'dancin in September'  
with Earth Wind and Fire  
and the equinox beckons me,  
to come walk this way.

And the trees that will begin their transitions,  
sing in colours of gold, rain auburn and red  
ay a path that says,  
come walk this way.

The buddleia plant from Caribbean seas  
have found a root in towpaths and wastelands  
they line these routes, purpled frilled  
and wave come walk this way.

A heron who knows the Time of Equal Nights  
prepares for the turn to winter and darker nights  
perches divinely on the highest branch  
and says, come walk this way.

Who knows of the navvies  
building by hand who lined the canal  
with puddled clay, walking, stomping  
and singing come walk this way.

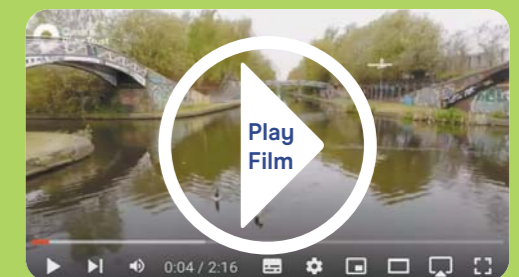
And nearby, the Lost City  
where waters depths cover a thousand sins  
and a thousand and one tales,  
saying come walk this way.

And bridges will bear the stories  
take the tags and take us  
into the future, as still waters  
serenade come walk this way.



### 'Poetic Waves' project with Roy McFarlane, our canal Poet Laureate

Our diverse community engagement programmes are encouraging people to connect with their local waterway and its rich heritage in a variety of ways. In Tottenham to the Lee Navigation, our Canal Poet Laureate Roy McFarlane worked with local residents to write poetry or creative pieces inspired by their thoughts and observations of their local river.



Watch the film here:  
<https://youtu.be/Onc0FuJYayE>



## Stewardship of our reservoirs

The Trust operates an interconnected and interdependent system of over 200-year-old waterways infrastructure. This includes over 10,000 national infrastructure assets and the oldest reservoirs in the country with open access.

Our reservoirs store the water which keeps the canals topped up throughout the year. We manage 82 reservoirs of which 71 are large raised reservoirs subject to the Reservoirs Act, from an era before most other reservoirs in the UK were built.

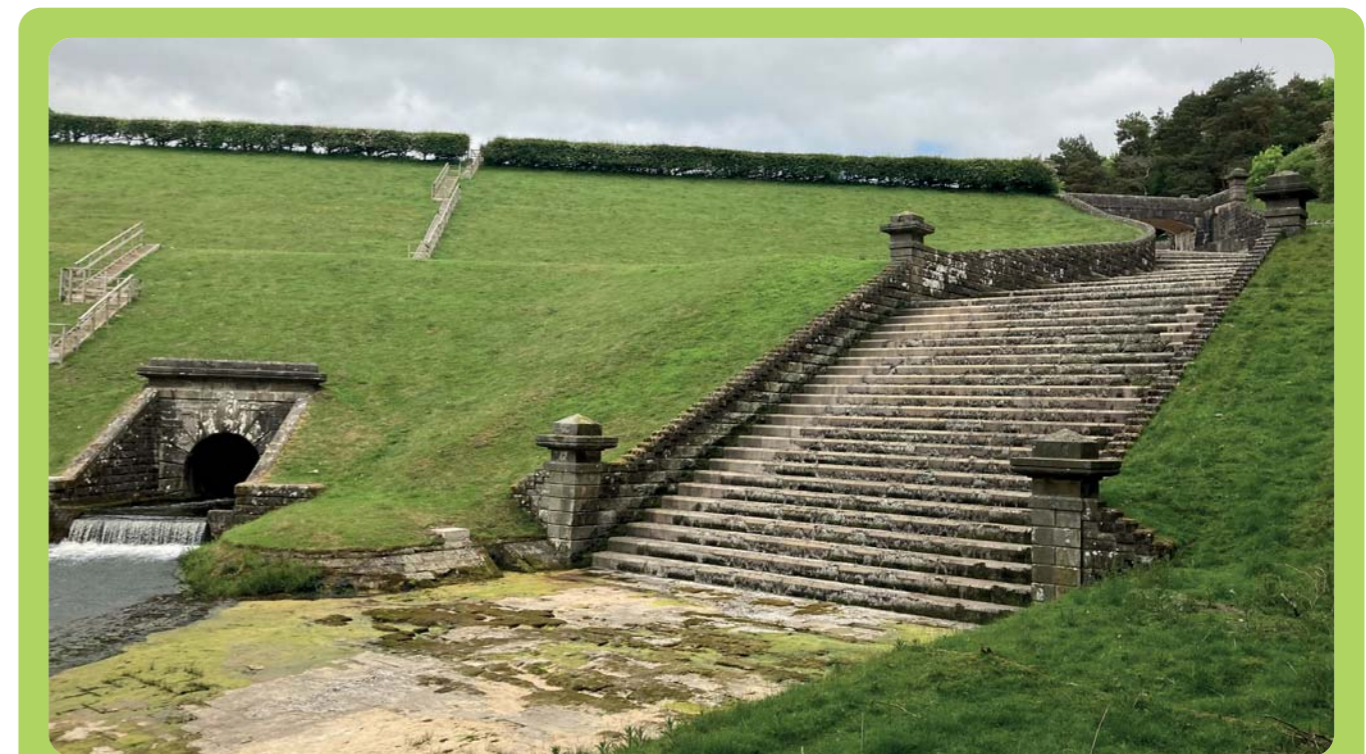
To ensure that our reservoirs stay resilient to climate change and comply with legislation, we are undertaking a major investment programme. Since 2020, we have spent £50million+ safeguarding these structures with a further £30million investment is planned for 2023/24.

### Case study: New Spillway & Outflow Channel at Hartshill Reservoir, near Worksop

Situated between Sheffield and Worksop, Harthill Reservoir was constructed more than 200 years ago to supply water to the Chesterfield Canal.

The reservoir is used and enjoyed by people in the local area for walks, fishing and sailing. In 2023 we completed a £5 million safety and resilience improvement project,

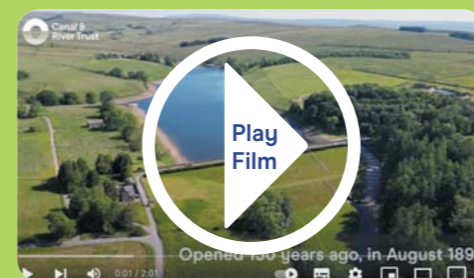
creating a new spillway and outflow channel. The scheme also included installing new fishing platforms specially designed to cope with fluctuating water levels.



### Repair of Winterburn Reservoir, North Yorkshire

At 180 metres long and 25 metres high, Winterburn Reservoir in North Yorkshire, is the Trust's highest dam. Completed in 1893, and now listed at Grade II, it is still used to supply water to the Leeds & Liverpool Canal – the UK's longest single canal – as well as providing valuable open space for people and wildlife. In 2023, as part of our legal obligations to ensure its continued safe use and to preserve the unique reservoir heritage for the future, we undertook essential repairs to the spillway.

With funding from the players of the People's Postcode Lottery, we removed vegetation, deteriorated masonry and grouting from the spillway, and replaced and repointed stonework. These works carefully balanced environmental, and conservation demands, using traditional techniques that would have been used when the reservoir was constructed 130 years ago. We also lowered the carbon footprint and reduced onsite disruption by using clamp-on platforms to carry out the works instead of scaffolding, and solar-powered welfare units.



Watch the film here:  
<https://www.youtube.com/watch?v=Ju9BvM7fYAQ>





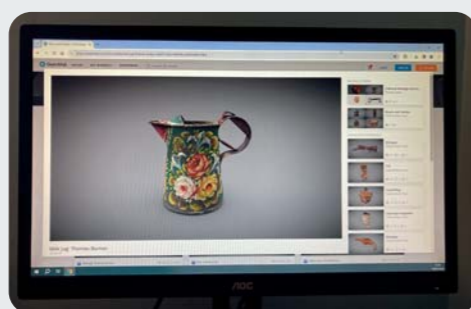
## Case study: Making our collections accessible – Photogrammetry Project

We want more people to be able to see, experience and enjoy our heritage objects and artefacts. With support from the players of People’s Postcode Lottery, we delivered a Photogrammetry Project featuring 3D digital models and better digital content, improving access to this nationally important collection.

A new dedicated studio has been created and a training programme delivered for our colleagues and volunteers to operate new hardware and software.

Through this project we have:

- created digital models, which are now exhibited online enabling more people to connect with the collection and explore objects in new and dynamic ways
- built robust digital records of these museum objects for conservation care
- designed and delivered STEM-linked learning activities which give school children access to the photogrammetry equipment
- compiled a comprehensive handbook for the Museum and Heritage Sector, to increase awareness of photogrammetry and how it can benefit other museums and their audiences.



Computer 3D modelling in action – 3D model of a Thomas Burton milk jug featuring Roses and Castles design.



Photographing objects, under the direction of Arden, our expert consultant.



“The studio open days have had a positive impact on the public by raising an awareness of our collection and increasing an understanding of photogrammetry and its uses. Most visitors have no prior knowledge of photogrammetry before their visit but display a great level of interest once we explain and demonstrate the process. The events have opened a dialogue between ourselves and the wider public, allowing them to share their own ideas about how photogrammetry can be used.”

Georgina Wilson-Williams, our Collections Officer & project lead, described the public’s reaction when the studio opened to the public



## Open Store Project at Ellesmere Port Museum

During 2023 we sorted, cleaned, catalogued and displayed thousands of objects that had not been seen by the public for many years. We have also made the space more accessible to the public, organised public tours

of the open store and developed our interactive learning offer. We have introduced QR codes at key spots in the store. Using their mobile phone, visitors can find out more about the stories behind the objects.



“Jim has been invaluable and ever present since the museum opened in 1976, both as a member of staff and a volunteer. Jim’s passion and knowledge of the museum is an inspiration. Jim is always willing to help wherever he can, whether engaging visitors with his extensive knowledge of the collection, or helping colleagues with his well-founded operational knowledge, Jim’s devotion to the museum is clear to see.”

Jim McKeown was awarded Impact Volunteer of the Year, at the 2023 Northwest Marsh awards.



# Making places and cultural heritage accessible

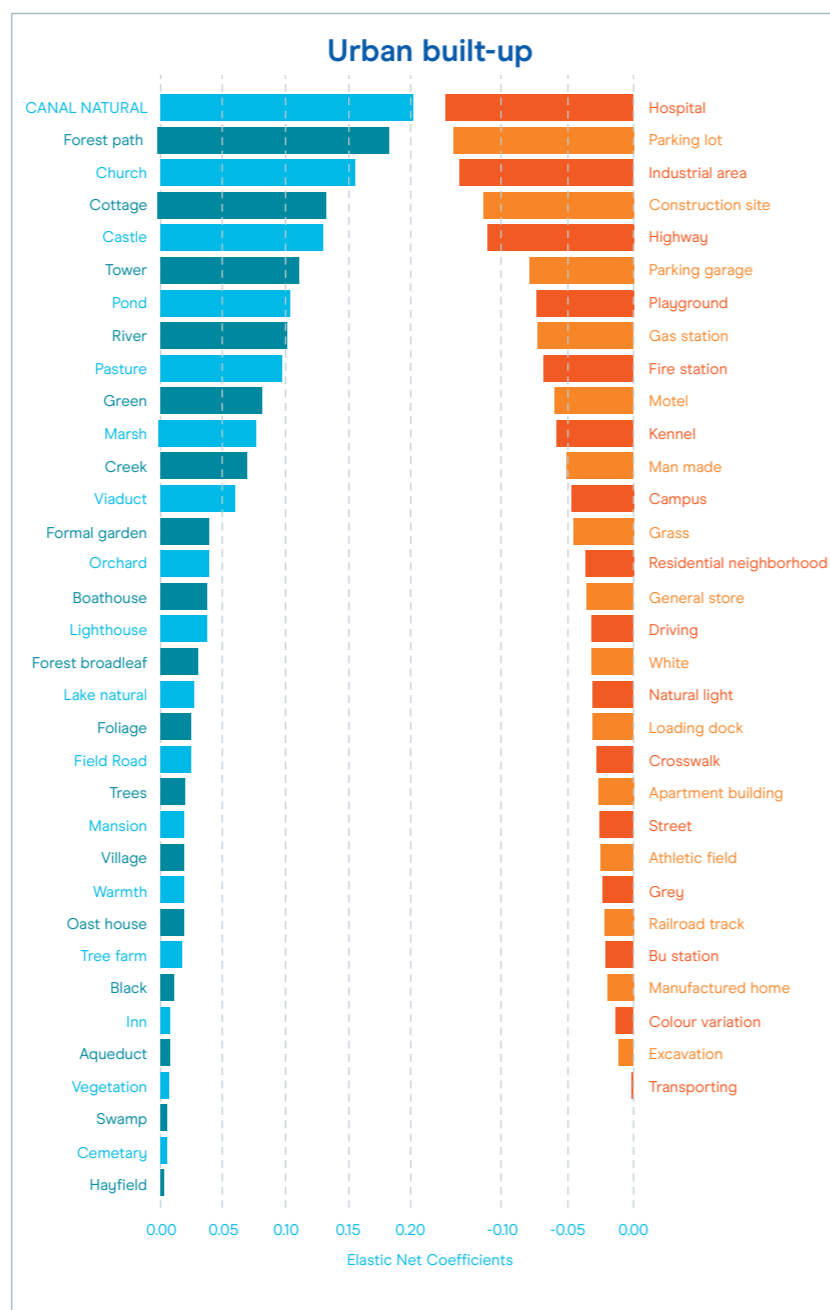
## Our research

### The science of scenic beauty by water

Research published by Warwick Business School indicated that, in urban areas, the presence of the ‘canal natural’ feature was the strongest predictor of scenic quality.

To gain a standardised understanding of the level of scenic beauty provided by our network of canals, other waterways and waterspaces in different regions, the Trust worked with Professors Suzy Moat and Tobias Preis at Warwick Business School to develop a Citizen Science programme. Using an online game, ‘Rate this Scene’, visitors to our website rated a series of canal and river images on a scale from 1 to 10; and uploaded their own images for rating. The game resulted in over 1.6 million votes and thousands of new images submitted and gained support from several celebrities including Grayson Perry, who shared his own images, Jo Brand, Chris Packham and Gaby Roslin.

The breadth of data collected from this game gave us valuable insights as to the specific elements of our network that people find most beautiful – old bridges, locks and reflections. Over time, the model will be refined to make the scenic artificial intelligence even better at finding particularly beautiful canals and rivers in new photographs that have not yet been rated.



# Living heritage – a working museum without doors

Our working network of canals, river navigations and docks are still used daily by a wide range of boats including unpowered craft. This network forms part of a uniquely accessible cultural heritage which is valued and enjoyed by local communities and visitors alike.

Our waterways, museums and other attractions provide out-of-classroom learning and skills development

opportunities for all, notably children and young people.







## Case study: Bringing new life to Grade II\* listed Roundhouse building in Birmingham

In partnership with the National Trust, we have revived the Roundhouse in Birmingham into a vibrant visitor destination and community facility.

Originally designed and built in 1874 by Birmingham-based architect W. H. Ward as stabling and stores for the Public Works Department, the Grade II\* listed building was on Historic England’s national Heritage at Risk Register.

Thanks to support from the National Lottery Heritage Fund and ten other organisations, we secured over £3 million in funding to create a vibrant hub and reinstate access to the canal. The building, which reopened in 2021, now offers office space for local businesses and a visitor hub for exploring the city and the region’s historic canals, with the Roundhouse Distillery also open next door.

Since opening, approximately 20,000 people have visited the Roundhouse with a further 6,000 taking part in tours around the hub and from the hub out across the city canals and streets. Over 100 active volunteers have supported these events, contributing approximately 4,000 hours of their time. Several activities, such as the ‘Paddling with Pride’ event with over 60 paddlers on the water, have been hosted to build awareness of the Roundhouse and develop links with the local community in Ladywood.

Volunteer feedback has been very positive, particularly for outdoor activities, heritage research, welcome and events. Many participants note a sense of pride, enjoy supporting something unique in the city, and sharing stories with people.

## Heritage working boats – bringing canal history alive

Our collection of historic working boats is carefully maintained by a group of dedicated volunteers – the Heritage Working Boats Group. These volunteers help to showcase the history of our canals at events, and as part of our educational outreach programmes, giving visitors a glimpse as to what life would have been like aboard these boats around the turn of the 20th Century.

The current fleet comprises the 72’ Grand Union Carrying Co. narrowboat ‘Scorpio’, paired with the 71’ unpowered butty ‘Leo’, the 71’ Cowburn and Cowpar narrowboat ‘Swift’ and the 42’ tug ‘Nansen’.



## George’s story

George explains why volunteering with the Trust’s Heritage Working Boat Group is such an important part of his life.

“For as long as I can remember I have been around the canals. I went on my Nan and Grandpa’s boat when I was about three months old and canals and boats have just always been present in my life.

“My volunteering journey started at around eight years old. Getting to be with the heritage boats is something I love as a hobby. Something that is uniquely mine. It’s something that I’ve always enjoyed. When I was younger it was the sense of escapism I got



from spending summers on the boat and exploring parts of the country in different ways from the water.

“Volunteering with the heritage boats allows me to showcase their history. I like knowing that people have learnt something and have engaged with the canal. One of the main reasons volunteering is special to me is because I get to share it with my Grandpa. It’s a passion that we both share giving us quality time together.

“Volunteering with the Canal & River Trust has truly been one of the most important parts of my life as I have developed into a young adult. It has given me many transferable skills including public speaking. It has also taught me the importance of health and safety when working as part of a team, as well as taking responsibility for my personal safety.”





## Enhancing biodiversity & the nature recovery network

The biodiversity and nature conservation value of our network of canals, navigable rivers, docks and reservoirs is considerable, with 68 Sites of Special Scientific Interest and approximately 1,000 Wildlife Conservation Sites.

This 2,000-mile long wildlife corridor is a vital part of the nation's nature recovery network, providing a home for iconic and protected species and everyday wildlife, often in areas with very limited biodiversity. Connecting isolated habitats, they give wildlife room to flourish.

46% of our network is designated for wildlife. Our network forms important linear wildlife routes, bringing wildlife into metropolitan and urban areas.

They function as 'stepping stones' that are essential for the migration, dispersal and genetic exchange of plants.

By their nature, canals incorporate a range of habitats which can be important, not only in their own right but as connecting corridors and the bankside and these aquatic ecosystems contribute to the wider ecosystem.

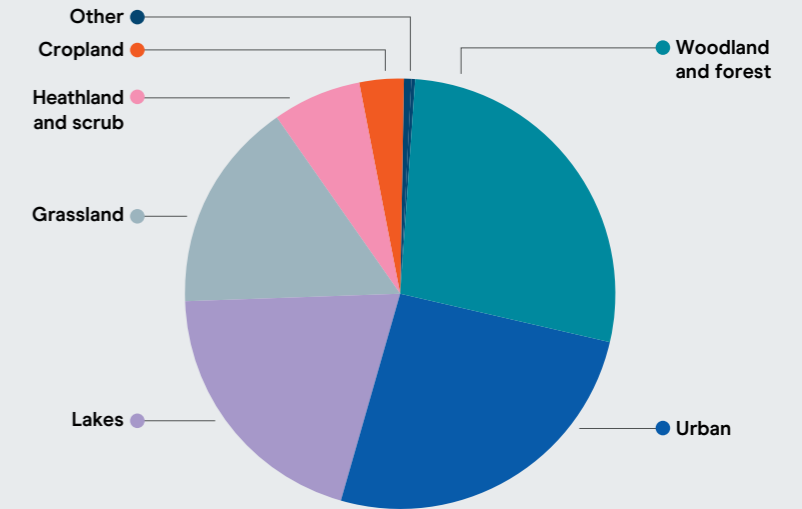


## Case study: Mapping our ecological footprint

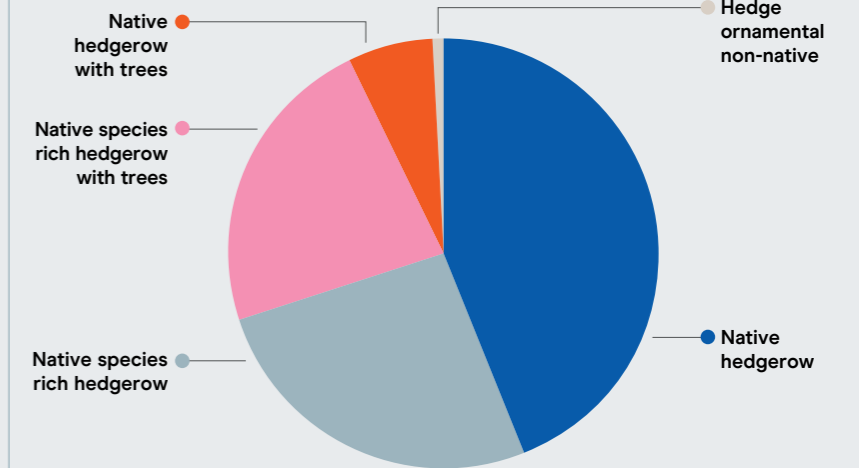
To fully understand the contribution that our network of canals, river navigations, docks and reservoirs make to the green infrastructure of the country, we have been mapping the different habitat types and conditions found within our corridors since 2022.

We have worked with leading design and environmental consultancy, FPCR, to develop a model of the habitat type and quality found on our network. This evidence will feed into Local Nature Recovery Strategies being prepared by local authorities. They will provide the starting point for the Trust, developers and local authorities to identify Biodiversity Net Gain opportunities on our canals, rivers, reservoirs and associated habitats.

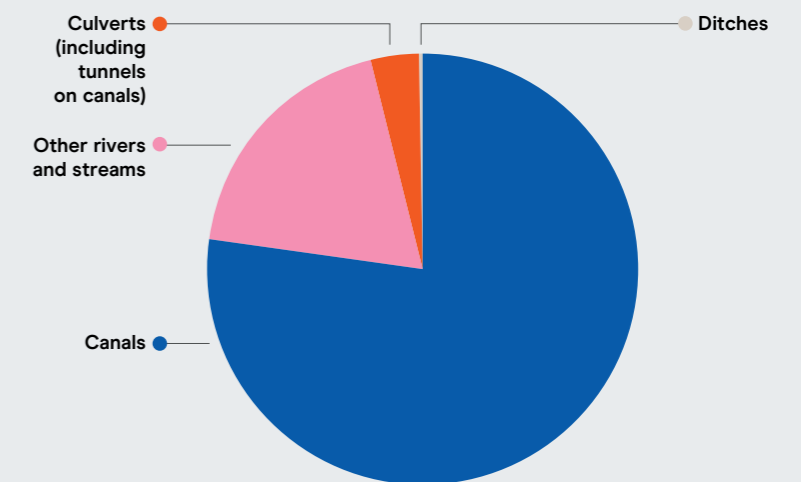
### Area Habitats



### Hedgerow Habitats



### Waterway Habitats





## Case study: 'Bioblitz' project on the Grand Union Canal in Leicester

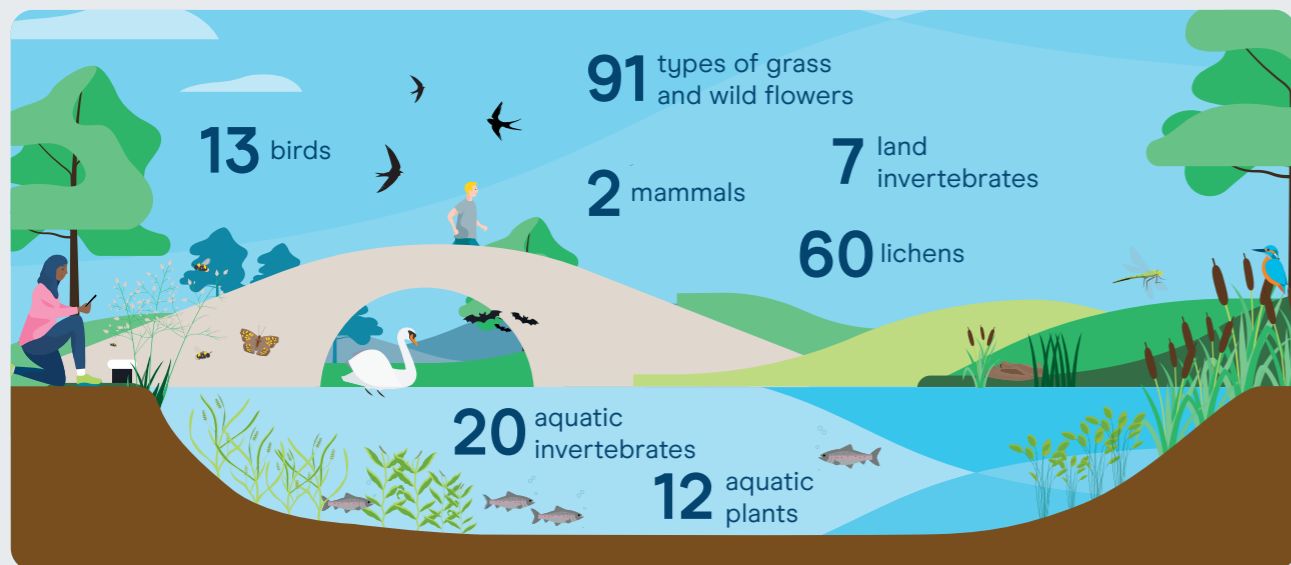
During 2023 we worked with Biological Science and Environmental Science undergraduates from the University of Leicester, sustainability volunteers from DeMontfort University and conservation officers from Leicester City Council on a pilot biodiversity mapping service, to better understand the biodiversity of the canal in Leicester.



“ This was a great opportunity for our students to collaborate with professionals and volunteers to learn how to identify the variety of wildlife that use canals and rivers across the UK. Our students were really excited to learn how canals and the adjacent vegetation act as ecological corridors for many species of bat. They were also amazed to see the diversity of aquatic invertebrates in the canal and learn how these can be used as indicators of water quality.”

Dr Moya Burns, School of Biological Sciences and the Institute for Environmental Futures at the University of Leicester

This 'Bioblitz' project, aimed to identify as many species as possible within one day, and was carried out on the Grand Union Canal at Aylestone Meadows in Leicester. It found:



## Case study: Tackling invasive species in partnership with Severn Trent

Invasive non-native species are one of the biggest threats to biodiversity. Our Canal & River Invasive Species Eradication Project (CRISEP), funded by Severn Trent Water's Great Big Nature Boost scheme, won the Chartered Institute of Ecology & Environmental Management's NGO Impact Award 2022.



CRISEP aims to significantly reduce and eradicate four invasive plant species on our network: Himalayan balsam, floating pennywort, Japanese knotweed and water fern. In its first two years, the project has successfully treated over 260 km of waterways.

We have worked with Leicester City Council and the Rothen Group to remove 1,250 tonnes of floating pennywort from over 35 km of the River Soar, using specialist weed conveyor boats. Floating pennywort, which grows up to 20cm per day, can smother habitats, block water flow, crowd out native plants and take oxygen from fish and insects. It causes major problems for boaters and other craft users.

Mechanical removal of the plant is expensive. Following the successful release of the North American weevil to control water fern on the Northern Birmingham Canal Navigations, we have continued

“ Leicester City Council has a biodiversity action plan and the targets are specifically looking at creating better space for wildlife to thrive in the city environment. That can only be achieved by managing and improving the habitat. Working in partnership with the Canal & River Trust, with funding from Severn Trent Water, helps us to meet our targets.”

John Bristow, senior nature conservation officer, Leicester City Council

working with CABI UK and started licenced trials to use South American weevils to feed and breed across the floating pennywort foliage, in the hope of reducing it over the coming years.

In addition to biological control, we have researched the complex relationships between invasive plant growth and nutrient availability in our canals. Through the CRISEP project, we have undertaken complex biochemical testing of the Wyrley and Essington canal over a 12-month period. This project is now providing valuable insights into nutrient run off into the network.



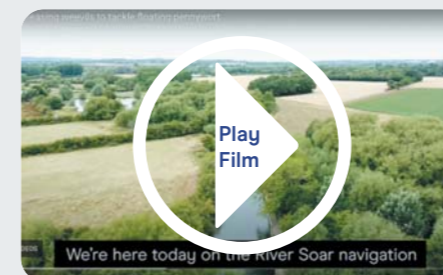
Japanese Knotweed



Floating Pennywort

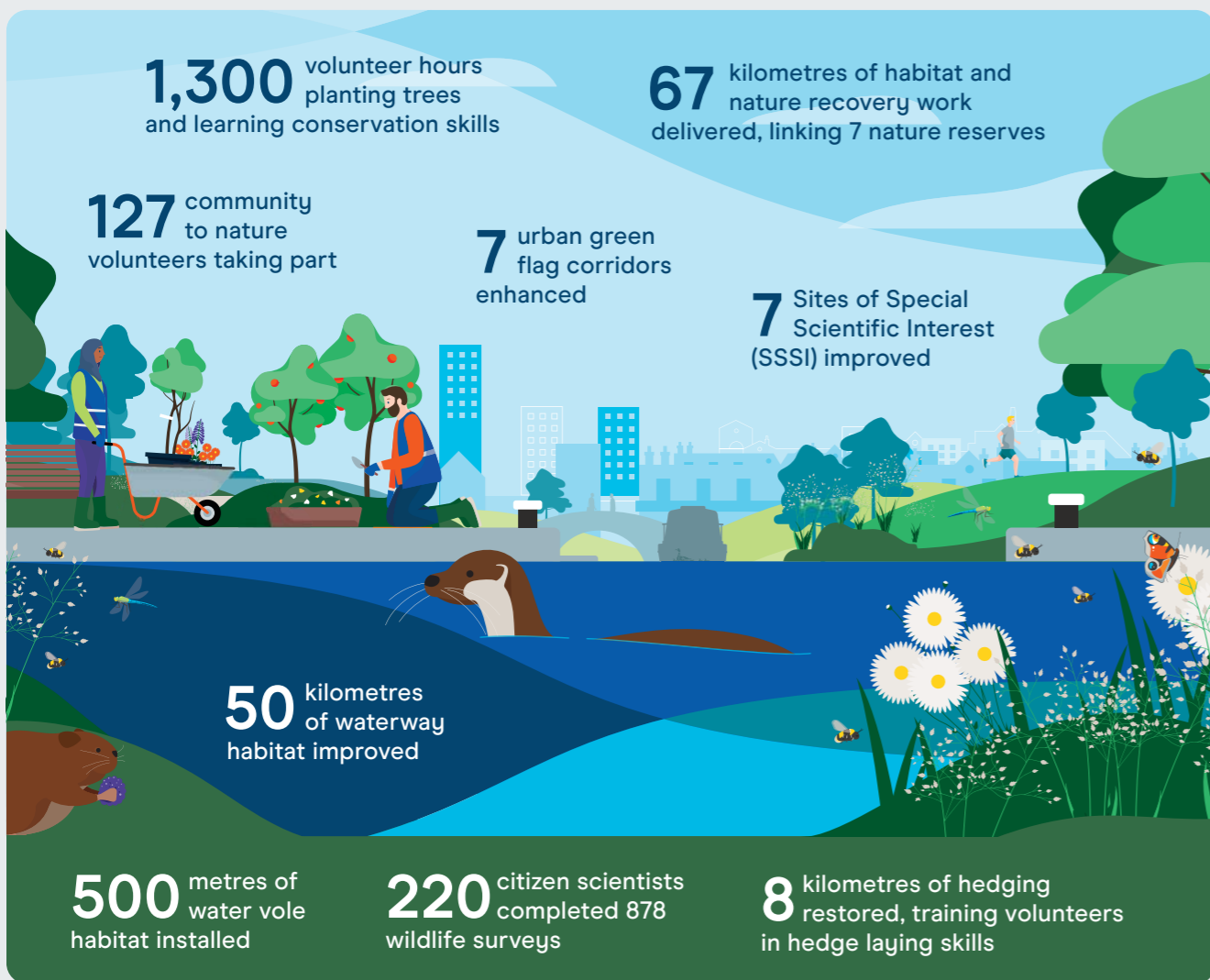
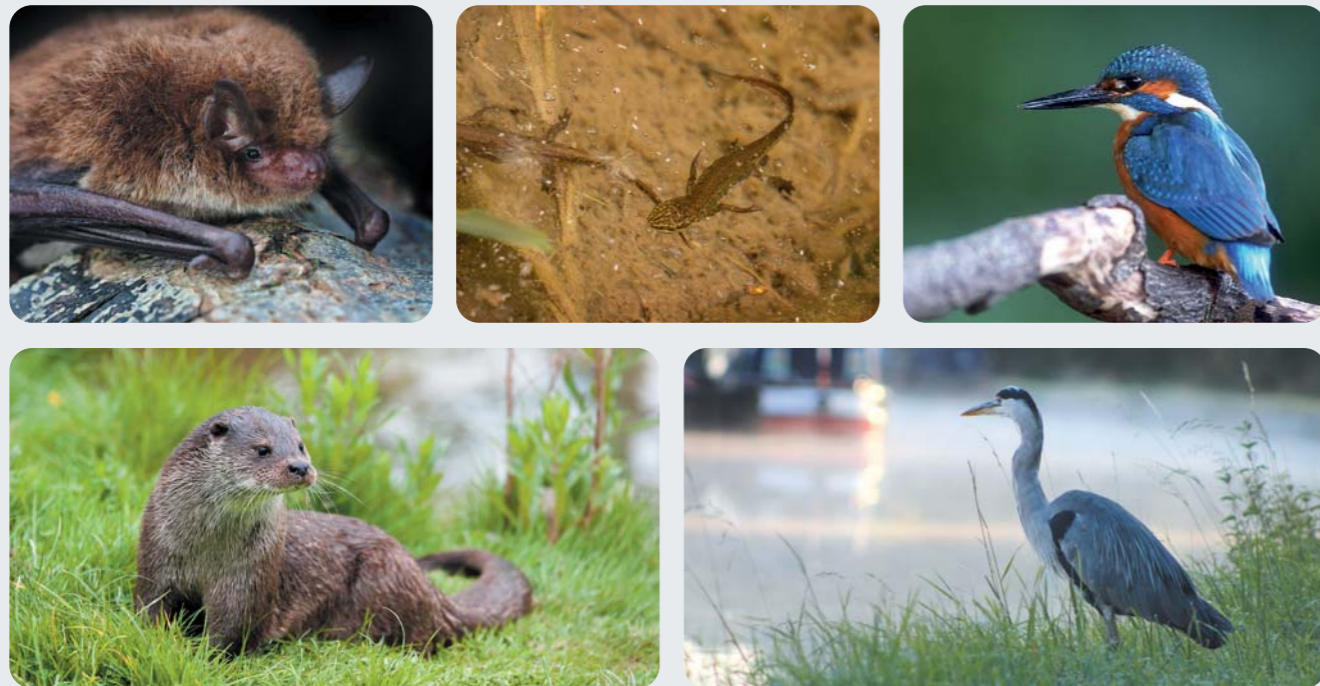


Azolla (Water Fern)



Watch the film here:  
<https://youtu.be/e6pglCXRmoU>





## Case study: Waterways & Wildlife – Defra’s Green Recovery Challenge Fund

With £1.72 million of funding from Defra’s Green Recovery Challenge Fund, administered by National Lottery Heritage Fund, The Trust worked with key partners including Walsall Council, Worcestershire County Council, City of Wolverhampton Council, Council for Learning Outside the Classroom and University of Derby, to deliver a programme of activities focussing on nature conservation, restoration and nature connectedness across the West Midlands region.

The project enabled us to improve waterway habitat, enhance SSSI sites and achieve urban Green Flag Awards® across the region ready for the Commonwealth Games in 2022, and undertake critical surveys for future recording of species growth.

The project has also contributed to the wider science base by sharing wildlife survey data with regional biological centres to ensure the legacy of the project.

The project recruited and trained local people to become volunteer community champions and citizen scientists, increased their knowledge and appreciation for the nature on their doorstep, and help them to connect with others in their wider communities. Community champions built links between schools and families. Volunteers carried out species and habitat surveys through citizen science projects including Vole Patrol and Pollinator projects.

“Working with the Canal & River Trust in the region on the Green Recovery Fund project was a delight. The team developed into an excellent partnership with Walsall Council which will grow from this project, we are already working on several other potential projects with the regional team. The project was well managed and everyone did an excellent job which we are all really proud to have been a part of. We have forged new relationships on this project and young people were given the opportunity to develop their skills in the green sector and move onto other projects in the region.”

Liz Stuffins, Walsall Council







### Improving our sites of Special Scientific Interest (SSSIs)

41% of SSSIs across our 701ha landholding are in 'favourable' condition, with a further 27% in 'unfavourable – improving' condition, as assessed by Natural England. We are focused on improving 'unfavourable' sites and have:

- Removed reeds and channel vegetation along 10km of the Grantham Canal, including at Kinoulton Marsh & Canal SSSI to maintain and improve the open water habitat.
- Translocated macrophyte plants to Kilby Foxton SSSI to help improve the condition by adding to submerged and marginal plants in the canal.
- Reprofiled and scraped back bracken roots along an embankment on the Anglesey branch canal to enable future management of a remnant rare heathland in the Chasewater and the Southern Staffordshire Coalfield Heaths SSSI.



Habitat improvements of open water – Grantham Canal

### Saving the nations' water voles – A threatened species

Water voles are an endangered species in significant decline in the UK.

However, we have been recording and monitoring populations across our canal network and where we have identified viable populations of these elusive mammals, we have introduced water vole friendly habitats to help ensure their survival. This includes:

- Installing over 250m of pre-planted coir rolls in steps on the Walsall canal to provide soft banks where there was concrete or metal piling to facilitate water vole movement. Works included vegetation management to allow light down to the bank edge.
- Mink trapping (to eradicate an invasive species to support the water vole population to thrive) on the Oxford Canal between Oxford city centre and Kidlington in partnership with the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust's water vole project officer and trained volunteers.
- Over 300m of marginal planting in Oxford city centre in water vole conservation areas by towpath volunteers.



Water vole feeding

Credit: Jack Perks



## Water Quality – Dredging

Dredging is essential for maintaining navigation, improving water quality and maintaining the ecological condition of our waterways.

Nationally, we spend approximately £7.4 million on dredging, removing nearly 120,000 tonnes of material from over 16 locations across our network. At Gloucester Docks, using a powerful 'suction dredger', we removed 14,000 cubic metres of silt.



## Welsh Environment Report

Glandŵr Cymru, the Canal & River Trust in Wales, cares for 75 miles of canals and their associated habitats including five SSSIs.

As part of our role as a statutory body for the upkeep of these canals, we recently updated our report to Natural Resources Wales covering our achievements for biodiversity. This includes:

- Restoration works on the Montgomery Canal, including the trial of leaky dams to help improve water quality.
- Creation of around 1-2 km of new native species water margin habitat along the Monmouthshire and Brecon Canal.
- 18km of weed clearance and cutting by volunteers.
- 56 km of the Monmouthshire and Brecon Canal awarded Green Flag® status.
- Approximately 1400m<sup>2</sup> of invasive weeds cleared.



## PPL funded Tree planting

Supported by players of People's Postcode Lottery, we have been implementing a tree planting programme on Trust land. The two-year programme sought to plant approximately 13ha of trees per year using a combination of volunteer and contractor support. The planting has included a mix of native UK species carefully selected for each site that sought to plug gaps in existing woodland and create connectivity as well as increasing total canopy cover. The programme has resulted in:

- 2022 – 12,585 trees planted in 14 locations, of which 4,040 were planted by volunteers. This included the creation of over 1km of new hedgerow.
- 2023 – 20,090 trees planted in 18 locations, of which 8,325 were planted by volunteers.





Cultural and Environmental Assets



### Improving canal habitats and water margins

Canals habitats support a wide range of wildlife and our focus has been to improve the plants and habitats alongside canals to encourage the recovery of animal and insect populations. Key highlights include:

- Over 200m of hedges traditionally layed on the Grand Union, Erewash and Grantham Canals.
- 100m<sup>2</sup> of 'floating ecosystem' marginal aquatic habitat created in central urban locations in Nottingham, funded by Severn Trent Water, Coca Cola Europe Partners and Nottingham City Council Transforming Cities Programme.
- Over 20 bird and bat box installations carried out by volunteers or as part of maintenance programmes at six locations across the London and South East Region.



- Installation of an eel pass at Stoke Weir on the River Trent, funded by EDF Energy in August 2022.
- Soft-bank habitat creation using coir rolls with marginal plants on the Soar in Leicestershire (2023) and Erewash Canal in Derbyshire (2022).

Cultural and Environmental Assets

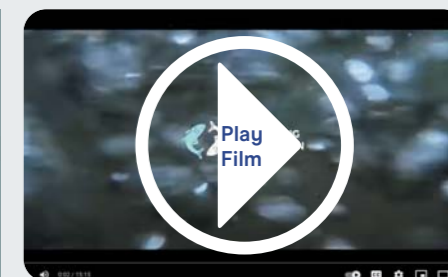
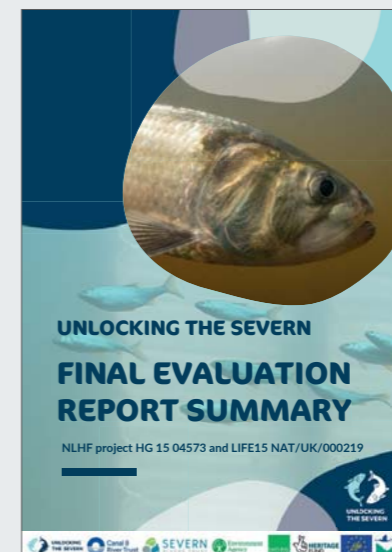
## Connecting with nature

Our network of canals, river navigations, docks and reservoirs is the UK's longest linear green-blue space providing nature on the doorstep for 9 million people. 97% felt close to nature during their visit to our network.

### Case study: NLHF funded Unlocking the Severn project

'Unlocking the Severn' is a river restoration project, restoring connectivity for twaite shad and other migratory fish species on the UK's longest river and engaging thousands of people with the fascinating natural, cultural, and industrial heritage of the Severn.

Funded by National Lottery Heritage Fund (£11.2 million) and EU LIFE Programme (£6.4 million) and delivered by partners – Canal & River Trust, Environment Agency, Natural England and the Severn Rivers Trust.



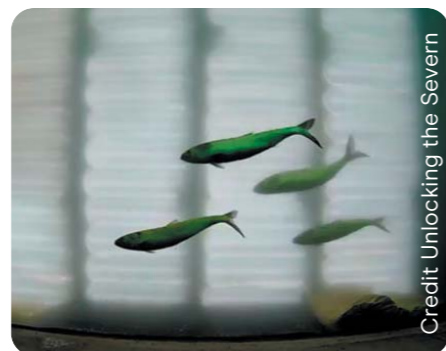
Watch the film here:  
<https://youtu.be/CsePWhmkeK0>



#### Summary of Project Outcomes

- ✓ **Upstream passage for migratory fish was restored** with the construction of four major fish passes on the River Severn (the weirs at Diglis, Bever, Holt, and Lincomb) and two easements on the River Teme (the weirs at Powick and Knightsford), providing access to historic spawning habitat for the first time in almost 180 years and reconnecting ecosystems for all river wildlife.
- ✓ **New techniques for tagging, monitoring, and tracing shad** were developed, producing one of the most comprehensive studies of their behaviour anywhere in Europe. Environmental DNA analysis and data from more than **500 tagged shad** provided vital insights which will inform future management and conservation efforts.
- ✓ An ambitious programme of community engagement has reached over **93 million people** and generated almost **17,000 hours of volunteering**. Local communities have an increased understanding of the historical, biological, and potential economic values of the shad and the wider river environment, and the extensive benefits of conservation initiatives.
- ✓ Since Diglis Fish Pass and Viewing Gallery were officially opened by HRH The Princess Royal on 8th October 2021 over **10,000 members of the public** have visited to take part in tours and other activities.





Diglis Island and Diglis Fish Pass are two fascinating new visitor spaces created through the Unlocking the Severn project thanks to funding from the National Lottery Heritage Fund and the European Union LIFE programme – helping to bring learning to life and giving children unique experiences through our school visits programme.

Year 5 pupils at Wilden All Saints Church of England Primary school visited Diglis to view the fish pass and find out how it works.

“It’s such an amazing opportunity to tap into locally. Our school is located very close to the River Severn and the canals. We often talk about the canals in the context of Local History and Geography or in studies of the Victorians and the Industrial Revolution, but the trip to Diglis offers even broader curriculum links, particularly across STEM subjects and Geography. That was our focus this time.”  
Carole Jones, teacher

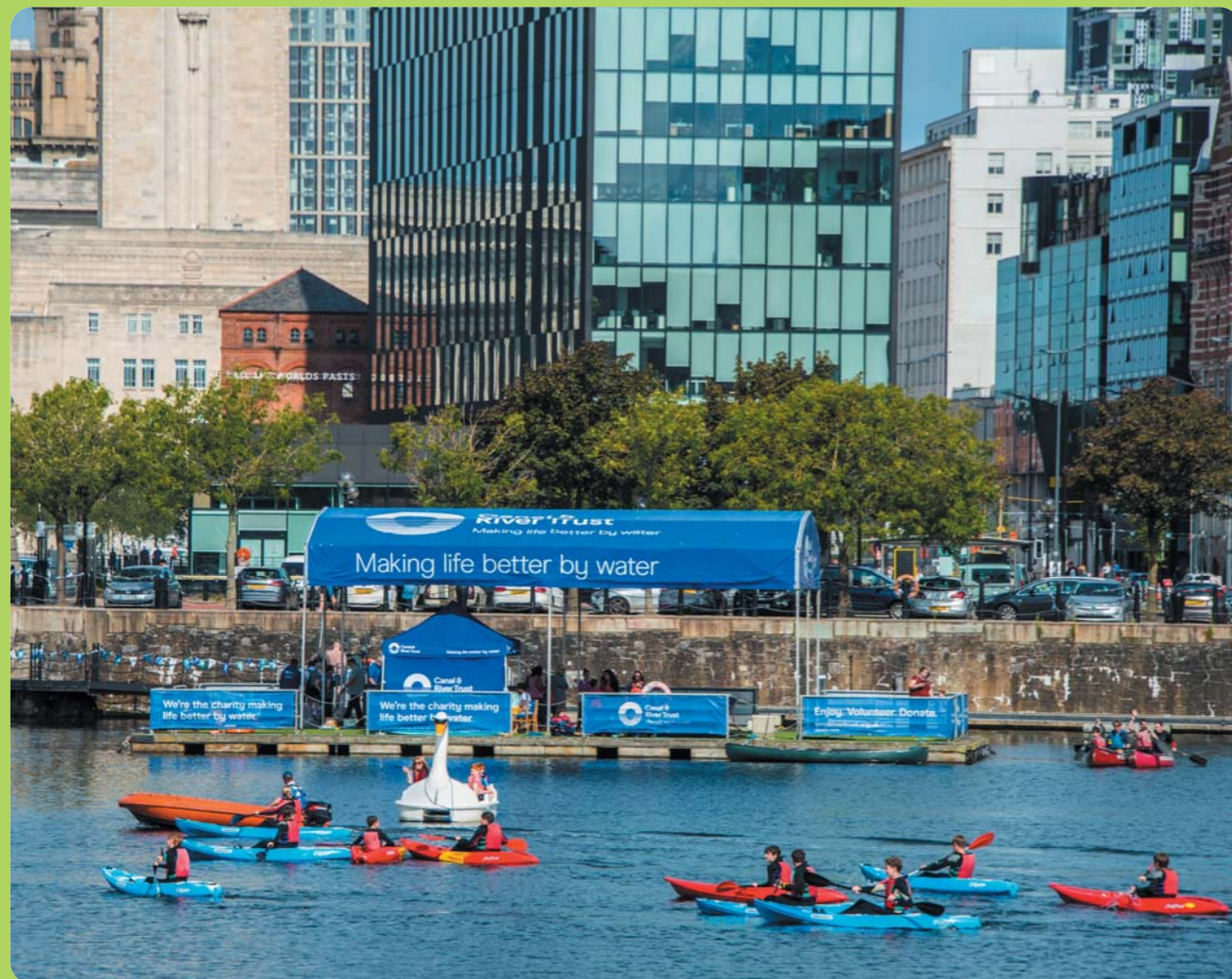
“It slows the water down and there are stations where the fish can have a little break. I just thought it was fascinating that someone had built that to help the fish and the fish were actually using it. You can go to the viewing gallery under the water to see the fish. We saw about seven Shad and a few salmon.”  
James, year 5 pupil

“There are so many related opportunities, but the main focus was visiting the fish pass and taking part in an ‘Epic Engineering’ activity where students could find out about the science behind the fish pass and explore ways to slow down the flow of water by building a marble run.”



## First Blue Flag – Royal Albert & Salthouse Docks

In 2021 our Royal Albert Dock and Salthouse Dock in Liverpool achieved our first Blue Flag award in recognition of outstanding environmental management, safety and boating services. The water quality within the docks is of the highest standard and is home to an array of wildlife, including blue mussels, eels and, during the summer months, moon jellyfish.



## Planting the world's longest community orchard in the West Midlands

As a nation, we have lost over 60% of our traditional orchards since the 1950's. Our Great Canal Orchard initiative is seeking to give urban communities the chance to enjoy the delights of fresh fruit picked straight from a tree, or the avenue of spring blossom buzzing with bees on their doorstep.

To support nature recovery in the West Midlands, we have planted native fruit tree saplings and whips to create a 50-mile long community orchard along our canals in the West Midlands – stretching from Wolverhampton to Worcester, via Birmingham. This ten-year project will see 3,000 fruit trees planted, providing fruit for people and wildlife. Over 500 trees were planted during 2022/23 funded by the Defra's Green Recovery Challenge Fund with 660 fruit trees planted to date.

The trees will provide habitat for a wide range of birds, including yellowhammers and bullfinches, song thrushes, redwings and fieldfare. The blossoming trees will also be important for insects such as bees and butterflies.

The project received funding from a number of sources including: Green Recovery Challenge Fund, Tesco's bags of help, Biodiversity Enhancement Area, Peoples Postcode Lottery, and private donations, including the Birmingham Canal Navigation Society.

**"Planting the trees was really nice to see and do because it is good for nature. I like it as it's nice for everybody who lives near there because they can eat the fruit and enjoy the view."**

Evelyn Crowther aged 9 – volunteer from Tibberton Orchard planting



Watch the film here:  
<https://youtu.be/ZyskYsdixVA>



# Looking to the Future

## Developing our 2035 Strategy – Keeping Our Canals Open & Alive

Our purpose is to achieve a sustainable future for our network of canals, keeping them open and alive, making them resilient and safe; and maximising their value for people, nature and the economy.

Following the Government announcement in July 2023 regarding the reduction in our future funding, combined with the growing impact of the climate on an ageing network, we have undertaken a strategic review. The purpose of this review is to redefine how we will work towards achieving our purpose, with our canals thriving, as living waterways that transform places and enrich lives.

To fully realise the potential benefits to society from our network of canals, river navigations, docks and reservoirs, our strategic direction responds to four overarching external drivers – delivering societal outcomes to help address some of the most significant challenges our nation faces over the next ten years and beyond.

To secure the future and fully unlock the social, economic and environmental impact potential of the network, it is imperative that we attract new funding and investment,

develop new partnerships and build upon our existing relationships and supporter base. This includes UK and Welsh Government and their sponsored bodies, Local Government, statutory funders, lotteries, philanthropy and corporate partners, as well as local businesses and groups. We must collaborate and work with national, regional and local partners, empower our communities and explore opportunities ‘to do things differently’.

We are committed to managing our nationally important infrastructure effectively and efficiently which includes engineering structures, water, environment and heritage. These provide the pathways to societal outcomes. We will strive to deliver a consistently good and rewarding customer and visitor experience, attracting more satisfied users, on and by the water.

# Key Drivers of Impact



**Resilience & Security**

Water Resourcing & Security

Drainage & Flood Protection



**Nature**

Biodiversity & Nature Recovery Network

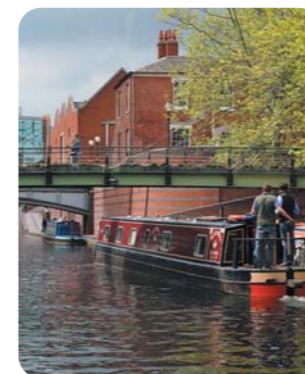
Connecting to Nature



**Health & Wellbeing**

Active Lives

Improving Mental Wellbeing



**Place & Prosperity**

Connected Communities & Places

Sustainable Development, Growth & Living



## Your Support – Your Impact

Our work would not be possible without our amazing volunteers, partners, funders and donors, friends, supporters and ambassadors. We would like to take this opportunity to say a huge thank you to you all.

Thank you for giving your time, your voice and your money; for your commitment to the Trust and for believing in what we do and the difference we make together.







# Our Challenges Ahead...



# ...Potential to Make A Real Difference

**Opportunities to partner with us**

If you would like to find out more about our work and how you can support us to continue to make a difference to people, places and nature, please get in touch.

**#KeepCanalsAlive**







# Canal & River Trust

Making life better by water

   canalrivertrust

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[canalrivertrust.org.uk](https://canalrivertrust.org.uk)

**We're the UK's largest canals charity, looking after a 2,000 mile network of canals, river navigations, docks and reservoirs across England and Wales.**

**Together, let's make sure they continue to be here for tomorrow and beyond.**

A network of more than 2,000 miles of stunning canals and navigable rivers runs through our landscapes. From our countryside to our bustling cities, canals are a place for everyone to connect with nature and our past.

However you use them, we all deserve open spaces where we can feel happier and healthier, and where wildlife can thrive. But the future of the nation's canals, other inland waterways and waterspaces and the habitat they support is threatened by changing temperatures, unpredictable rainfall and the tests of time.

Together, we can make sure they continue to be here for tomorrow and beyond.

- Become a Friend
- Support an appeal
- Leave a gift in your Will
- Speak up for canals
- Volunteer with us
- Partner and work with us

**Join us and let's #KeepCanalsAlive**

SUPPORT US



 SCAN ME