Canal & River Trust
Making life better by water

# Putting the water into waterways

## Water Resources Strategy 2015–2020

## 2018 Annual Update

The waterways we care for have the power to make a real difference to people's lives and we want more people to enjoy these benefits by making our canals and rivers part of their daily life. Delivering a secure long-term water supply will help us to achieve this, as water is the lifeblood of the waterways. In October 2015 we published our Water Resources Strategy, '*Putting the water into waterways*'. It set out our aspirations for the period 2015–2020 as well as looking as far ahead as 2050 to understand the longer-term pressures and challenges on water supply and use. This document provides an update of our progress over the past year against the strategic actions outlined within the Strategy.

November 2018

## Consent to new marinas

In the Water Resources Strategy, **strategic action 3** stated that we would only give our consent to new marinas if their impact on water resources does not reduce the level of service below 1 in 20 years.

Since November 2017 we have assessed seven new marina proposals and 22 Business Boating proposals (such as hire boats or trip boats) to ensure that the additional water demands can be met without reducing the level of service below 1 in 20 years.

## Restorations and new canals

We have continued to produce and contribute to water resource assessments for proposed restorations and new canal developments to ensure there is no net impact on the level of service of our network as stated in **strategic action 4**.

In the past year, we have completed a water resource study on the restoration of parts of the Grantham Canal. This project was delivered with technical volunteer support.

We have continued to provide support and advice to the following third-party led restorations and new canals: the Cromford Canal; the Montgomery Canal (Freestone Lock to Newtown); the Stroudwater Canal; and the Wilts & Berks Canal (including Melksham Link).

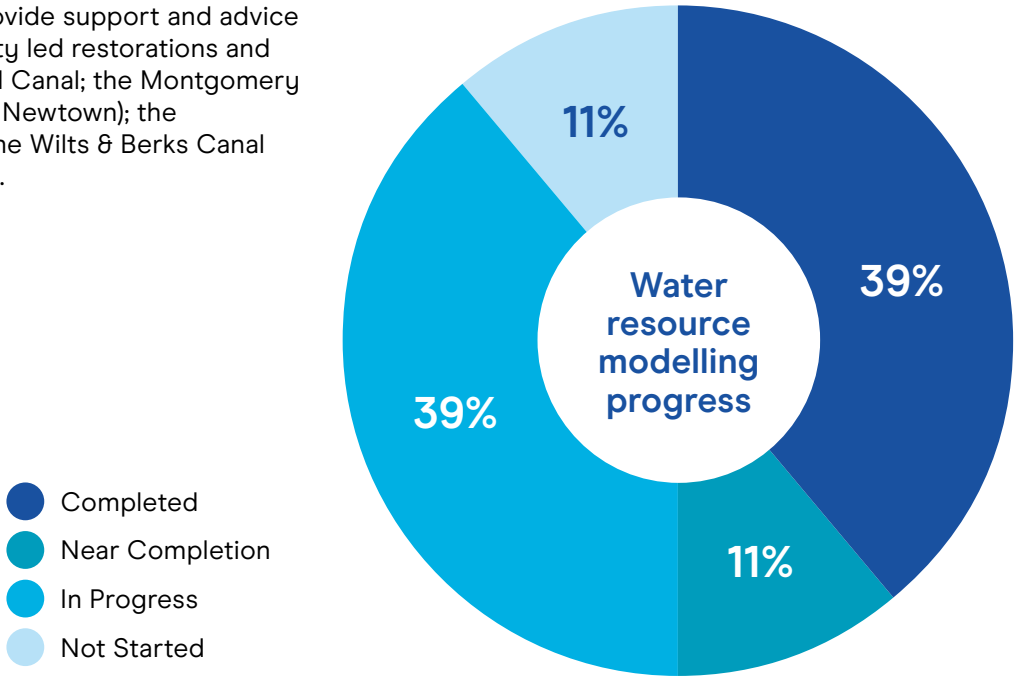
## Modelling our canal network

In the past year, we have continued work on developing new hydrological models using Aquator (specialised industry-standard software) under **strategic action 5** to replace our current water resources model as this is now reaching the end of its functional life.

Our progress so far is shown below. Since November 2017 we have been working on models for the: Oxford & Grand Union Canals; Leeds & Liverpool Canal; South Oxford Canal; Birmingham Canal Navigations; Peak & Potteries; Shropshire Union and Staffordshire & Worcestershire Canals; Grand Union Tring; Grand Union South; and Gloucester & Sharpness Canal. We have completed the model for the Huddersfield Narrow Canal.

We have also been working with the developers of the Aquator software, Hydro-Logic Services, to ensure that the modelling package we are using meets our requirements.

In our original Strategy, we stated that we were aiming to complete the model development of 18 of the 53 hydrological units by 2018. However, 2018 has been exceptionally dry and our priorities have instead been focused on managing the impacts of drought conditions.



# Drought 2018

The Met Office has declared this summer as the warmest on record in England, based on records going back to 1910, and it ranks one of the five driest summers over the same period. This has led to depleted canal water resources, initially in the North West where closures have been necessary. Other parts of our network have also been affected, with reduced opening times on parts of our more southerly network.

As a Trust, our technical and operational colleagues have been working collaboratively to closely monitor the developing drought by reviewing reservoir levels and the operational demands of each canal, whilst balancing the needs of the environment. Demands have been particularly high this summer, and with the record high temperatures leading to much higher than average evaporation, small watercourses have dried up more quickly. This has added to the localised engineering issues our operational colleagues have also been having to deal with on a daily basis.

We have been carefully liaising with boating organisations to minimise disruption to our customers and users of our canals. We have also been working with our engineering colleagues to look for opportunities to complete works while canals were closed, minimising disruption to our customers at other times of the year.

It's been an incredibly challenging summer drawing on all our expertise, but our experiences will help inform our future Water Resources Strategies and improve our understanding of: navigational drought (**strategic action 1**); water resource shortfalls and loss rate estimates (**strategic action 5**); and the viability of water resource scheme options identified in our 2011 Water Resource Plans (**strategic action 10**); particularly on parts of the network where closures have been applied. On some parts of the affected network we have also been able to come up with new water resource schemes, as part of our contingency planning, that we will be able to include in our future Water Resources Strategies going forward.

# Water company planning

As a Trust, we continue to work closely with water companies, for example, feeding into their Water Resource Management Plans (WRMP) where we interact with their water supply network, contributing to **strategic action 6**. We strive to ensure the Trust's interests are safeguarded whilst also looking to develop commercial water development opportunities.

To progress this, in the past year we have reviewed the draft WRMPs of 22 water companies. Firstly, to ensure that canal transfer schemes that we have previously proposed have been considered fairly against other options, and secondly, where our proposals have been chosen as preferred plan schemes, that the planned timescales are appropriate. Of the 21 schemes proposed to six different water companies, five have been put forward in their draft WRMPs for the following water companies: Affinity Water; Thames Water; and United Utilities.

# Future pressures on our water resources

We continue to use the most up to date information available to assess the following pressures on our water resources (as stated in **strategic action 7**): climate change, changes in funding, environmental legislation (likely reduction in abstraction volumes) and increased network usage.

Following the historic Paris Agreement on Climate Change in December 2015, the previous set of UK Climate Projections (UKCP09) has had a major upgrade to ensure decision makers have the most up to date information on the future of our climate. The UK Climate Projections 2018 (UKCP18) are now available. The findings from this research will be reviewed and taken into account in future modelling of our network.

In the Water Resources Strategy, we identified the Water Act 2003 as a significant pressure, with the potential to reduce our water availability in the future. Our exemption for surface water transfers into canals has now been removed and the two-year abstraction licence application window to regulate this change started on 1 January 2018. The Environment Agency (EA) and Natural Resources Wales (NRW) will then have three years to determine the applications. In doing so, there is a risk that a number of our existing abstractions will have conditions placed upon them that will restrict the quantities of water we can abstract. The Trust is expecting to apply for around 250 licences. This could have a major impact on our future water availability. Since 1 January 2018, progress has begun on around 170 licence applications. Progress to date has included: consultation with the EA and NRW; site investigation; hydraulic analyses; and hydrological data analyses. We have drafted around 70 application forms and will complete all those required by the end of December 2019.

We have continued to contribute to an EA led research project looking at the sustainability of abstraction within the Bulbourne Brook catchment, in which two of our groundwater supply abstractions (Northchurch and Cowroast, which supply the Grand Union Canal) are located.

## Water resource schemes

We have continued working on feasibility studies to assess water resource schemes on the Leeds & Liverpool and Rochdale Canals, as part of **strategic action 10**. These schemes include: a new river abstraction and back pumping to the summit pound/Barrowford Reservoir on the Leeds & Liverpool Canal; and schemes on the Rochdale Canal to backpump the Hollingworth Lake entitlement of water from United Utilities to the canal summit, and backpump lockage water around Tuel Lane Lock. We are also currently working on a feasibility study to assess a water resource scheme on the Grand Union Canal to improve the transfer of water from the Milton Keynes trough pound up to the Braunston Summit of the Oxford & Grand Union Canals Hydrological Unit.

## What are we planning to do in the next year of the Strategy?

We are going to continue to focus on modelling all our hydrological units. In parallel we will continue to identify potential schemes to help address the deficits in water resources against the agreed level of service. We will continue applying for abstraction licences required under the Water Act 2003. We will produce and publish our next annual progress report against our Water Resources Strategy (2015 to 2020) actions in November 2019.

## Links

For more information about the water management of our canals please visit our website:

**canalrivertrust.org.uk/specialist-teams/managing-our-water**
and read our Water resources strategy: putting the water into waterways.

Or, email your comments to
**water.information@canalrivertrust.org.uk**