



Canal &  
River Trust

## DISCOVER THE HIDDEN WINTER SECRETS OF BRITAIN'S MUCH-LOVED WATERWAYS

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Winter is a great time to take a walk along your local waterway and blow away the Christmas cobwebs. At first glance, you might think canals are quiet at this time of year – but if you look in the right place, you could be in for a surprise.

As the rest of the country hunkers indoors to keep warm, an intrepid team of engineers and specialists from the Canal & River Trust are busy carrying out vital repairs to the nation's 200-year-old canal network.

Their work environment is not for the faint-hearted. Often their day job means dealing with oceans of mud, freezing temperatures, driving rain and even snow to replace lock gates, rebuild embankments and grout damaged lock chamber masonry.

It's like painting the legendary Forth Bridge. The charity has the endless task of caring for a complex, imperfect, beautiful heritage waterway network that's just as important today as in the Industrial Revolution when much of it was constructed.

Nearly half the population of England and Wales lives within five miles of a canal and last year 380 million visits were made to the Trust's waterways. People love walking, jogging, cycling and angling along the towpaths and there are now 32,000 boats licensed to use the network - more than in the canals' industrial heydays.

Far from being a forgotten backwater, the nation's canals have reinvented themselves as havens for leisure and wildlife. And with a waterside location adding up to 20% to the value of your property, it's become a popular place to live too.

The scale of the challenge of keeping them in tip top condition is enormous. The Canal & River Trust is the guardian of more than 2,000 miles of waterways in England and Wales (76 miles in Wales). It's the third largest owner of listed structures after the Church of England and the National Trust, with a staggering 2,980 bridges, 336 aqueducts, 1,583 locks, 55 tunnels and 73 reservoirs in its care.

If you then factor in that most of these structures were built over two centuries ago, you get an idea of the monumental maintenance challenge.

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The Trust's director of asset management Julie Sharman said: "This winter we are spending £43 million in carrying out essential repairs to the waterway network. We try very hard to minimise the inconvenience to boaters which is why we do all our large planned work projects during the winter months.

All our waterway structures are regularly inspected and any which are identified as in need of some extra TLC are then prioritised for remedial action according to how urgent the job is. And of course, all that careful planning can be knocked sideways by an unexpected emergency such as the floods on the Yorkshire canals last winter which cost nearly £12 million to put right.

"It is a never-ending juggling act and an important side of our work which usually goes unseen by the public."

And that's why, over the last four years, the Canal & River Trust has taken the unusual decision to open up some of the most interesting of its winter projects to visitors and escort them onto building sites and down into empty lock chambers.

This winter it is hosting 12 free open days across the country, giving the public a rare chance to see up-close some of the finest examples of working industrial heritage in the world. Visitors can experience climbing down into the iconic Marple Lock Flight on the Peak Forest Canal, inspecting the engineering at Tringford Pumping Station on the Grand Union Canal or discovering the history of St. Pancras Lock in the heart of London.

Each open day provides the opportunity for local communities to learn about the history and heritage of their area from one of the charity's experienced heritage advisers, engineers or other specialist.

What shines through to visitors is the admiration staff have for the original, entrepreneurial canal engineers, like Thomas Telford, William Jessop and John Rennie. These brave inventive men responded to business challenges posed by 18<sup>th</sup> and 19<sup>th</sup> century industrialists and came up with incredible solutions for transporting goods long distances over difficult terrain.

Deep channels, lock systems, tunnels and bridges were created without any of the modern methods of surveying, mechanisation or construction we enjoy today. Huge armies of canal navigators, or navvies as they became known, literally dug for Britain to create the new canal network – the motorways of their day.

Civil engineer Clive Mitchell, who manages one of the Trust's project management teams, enjoys the challenge of marrying 21<sup>st</sup> century repair solutions with this heritage environment.

"Where possible we do try to carry out "like for like" repairs using the original materials but sometimes there are reasons to look for an alternative. For example, recent developments

in polyurethane resin grouting allows us to target leakage paths in locks and embankments specifically to avoid a much more intrusive traditional repair.

“And it’s not only natural disasters we have to deal with. We invest a huge amount of time and effort in encouraging and protecting wildlife on our canals. We are actually responsible for 63 Sites of Special Scientific Interest. However, those protected species do also add to the challenge of maintaining the canal network. It only takes a few over-enthusiastic badgers burrowing through sandy soil to cause a canal breach or a colony of bats roosting to hold up a bridge restoration project.

“Maintaining and repairing our unique canal heritage, built by some of the great engineers is a real privilege. It’s interesting because those engineers faced many of the same challenges we do today, and occasionally *did* make mistakes. John Rennie’s famous elegant stone Lune Aqueduct in Lancaster is a perfect example where the design and construction didn’t go quite to plan. The installation of the timber piles to support the great masonry piers was delayed by a whole winter due to flooding, one of the wing walls collapsed a few years after opening, and we are still having problems with leaking embankments even today. It all makes for a challenging but fascinating job.”

As part of its maintenance programme, the Trust will be working on around 164 lock gates across the country this winter. The new lock gates are made in the Trust’s specialist workshops at Bradley in the West Midlands and Stanley Ferry in Yorkshire.

Lock gate making and fitting is a traditional skilled trade and one that remains essential to the waterways. Lock gates are constructed with tremendous strength as they have to control huge water pressures, tolerate hard usage from thousands of boaters each year, and survive the vagaries of the British weather. Each lock gate is hand-crafted by a skilled team of carpenters and made from sustainably-sourced British oak. A single lock gate weighs around 3.6 tonnes, can take up to 20 days to make and has a working life of 25-30 years.

Richard Parry, chief executive of the Canal & River Trust, says: “The Canal & River Trust cares for a remarkable network of historic waterways which are still working as they were designed to 200 years ago. Keeping them open and safe requires a huge amount of planning, investment and craftsmanship and involves a wide range of knowledge and expertise from civil engineers, hydrologists, heritage experts and ecologists.

“By showcasing this work to the public at our open days, we can give them a glimpse into the craftsmanship of the waterways’ original 18<sup>th</sup> and 19<sup>th</sup> century design and explain the scale of the Trust’s task to care for them now. We hope this will inspire more people to get on board and support our work to unlock the potential of all our canals and rivers.”

**To find out more about the Open Day programme and the events happening near you visit [www.canalrivertrust.org.uk/open-days](http://www.canalrivertrust.org.uk/open-days)**

## ENDS

From Lynn Pegler, Canal & River Trust press officer. [lynn@peglercommunications.co.uk](mailto:lynn@peglercommunications.co.uk).

An out-of-hours press officer for the Canal & River Trust will be on call for emergencies over the Christmas/New Year holiday. Tel 07919 113075. The press office re-opens on Tuesday 3 January 2017.

### Notes to editors:

The Canal & River Trust is the guardian of 2,000 miles of historic waterways across England and Wales, caring for the nation's third largest collection of listed structures, as well as museums, archives, and hundreds of important wildlife sites.

We believe that *living waterways transform places and enrich lives* and our role is to make sure there is always a place on your doorstep where you can escape the pressures of everyday life, stretch your legs and simply feel closer to nature.

[www.canalrivertrust.org.uk](http://www.canalrivertrust.org.uk) / @CanalRiverTrust / @crtcomms

### Event locations and dates:

OPEN DAY LOCATION	OPEN DAY DATE
Trent & Mersey Lock 72, Middlewich, Northwich	Nov 26 <sup>th</sup> 2016, 10am-4pm <span style="float: right;">DONE</span>
Elland Road Bridge, Calder & Hebble, Leeds	Nov 26 <sup>th</sup> 2016, 9.30am-3.30pm <span style="float: right;">DONE</span>
Marple Lock Flight, Peak Forest Canal, Marple, near Stockport	21 <sup>st</sup> Jan 2017, 10am-4pm
Audlem Lock, Shropshire Union Canal, near Nantwich	21 <sup>st</sup> Jan 2017, 10am-4pm
St Pancras Lock, Kings Cross, London	4 <sup>th</sup> & 5 <sup>th</sup> Feb 2017, 10am-4pm
Stoke Bruerne, Grand Union Canal (next to the museum)	11 <sup>th</sup> & 12 <sup>th</sup> Feb 2017, 10am-4pm
Doncaster Lock, Sheffield & South Yorkshire Navigations	25 <sup>th</sup> Feb 2017, 10am-4pm
Bradford-on-Avon Lock, K&A Canal	25 <sup>th</sup> February 2017, 10am-4pm
Junction Lock 17, Trent & Mersey Canal, Fradley	18 <sup>th</sup> & 19 <sup>th</sup> Feb 2017, 10am-4pm
Turner Wood Lock, Chesterfield Canal	11 <sup>th</sup> & 12 <sup>th</sup> March 2017, 10am-4pm
Stourbridge Lock 3, Dudley Canal	11 <sup>th</sup> March 2017, 10am-4pm
Tringford Pumping Station, Grand Union Canal	11 <sup>th</sup> March 2017, 10am-4pm