



**Canal &
River Trust**
Making life better by water

Research Centre
Agroecology, Water
and Resilience

**Coventry
University**

Making Life Better by Water: The Plastics Challenge



Image: Mark C Baker

canalrivertrust.org.uk

Foreword



We know that spending time by water makes a difference to how we feel, it makes us happier and less anxious. However, our research shows that over half a million items of plastic reach the oceans from our canals and rivers every year. This is directly impacting on our wildlife, plant life and our own lives.

Around 80% of the plastics and litter found in the oceans is being dropped inland and we know a vast majority of this is recyclable or could be re-used in creative and innovative ways.

We are an island nation with thousands of miles of inter-connecting inland waterways, meaning plastics dropped many miles inland can end up in our canals and rivers and drift out to sea, polluting the oceans.

Canal & River Trust is the charity that cares for and brings to life 2,000 miles of waterways, an amazing network that connects with the English Channel, the North Sea, Irish Sea and Atlantic by way of major cities such as London, Birmingham, Liverpool, Manchester and Leeds.

Unfortunately, these canals and rivers are inadvertently acting as 'plastic highways', transporting rubbish from towns and cities across the UK out to sea.

We can change this, but we must act now by taking action locally.

We can all make a difference. Every action that someone takes locally to improve the canal or river in their neighbourhood can have a global impact on our oceans.

Richard Parry, chief executive

The Plastics Challenge

For the first time we have undertaken a detailed analysis of the plastics and litter found on our canals and rivers. Working with Coventry University, we have examined the scale of the problem and the actions that we need to take.

Our research found that there are **24 million items of plastic and other litter** being dropped or blown onto our waterways every year. **14 million items (59%)** are plastics such as bags, bottles, disposable cups and food wrappers and we are **spending £1 million a year** dealing with it.

We empty 900 public litter bins over 46,000 times a year, clear plastics and litter from 230 sites, and our volunteers spend over 100,000 hours each year clearing litter from our towpaths and canals. However, despite our best efforts, we alone are unable to quell the tide.

Our canals and rivers are so accessible – these blue and green 'ribbons' run through the heart of our towns and cities and over four million people regularly visit and spend time by them. With **almost 1 in 5 people admitting to dropping litter**, a lot of this will unfortunately end up in the waterways.

We know that life is better by water and more people than ever are enjoying the benefits of spending time alongside our waterways. Plastic and litter free canals are beautiful inspiring places for people to use every day, or to visit.

With over 500,000 plastic items estimated to be washing from our waterways into the sea every year, litter on the canals and rivers is part of a much bigger problem.

Plastics such as bottles, food wrappers and straws have a damaging impact on underwater life. Large pieces can trap animals, and smaller items can be inadvertently eaten. Once digested, plastic blocks the gut, causing the animal to slowly starve.

We believe that everyone deserves – and can help create – beauty on their doorstep, and by taking action locally, you will also be helping to tackle a global issue.



Canal & River Trust

Making life better by water



14 million

items of plastic end up in and around our canals and rivers every year



100,000

hours of volunteer time is spent picking up litter each year



£1 million

of charity funding is spent every year dealing with litter and fly-tipping



Our canals and rivers carry over
500,000
items of plastic to the ocean every year

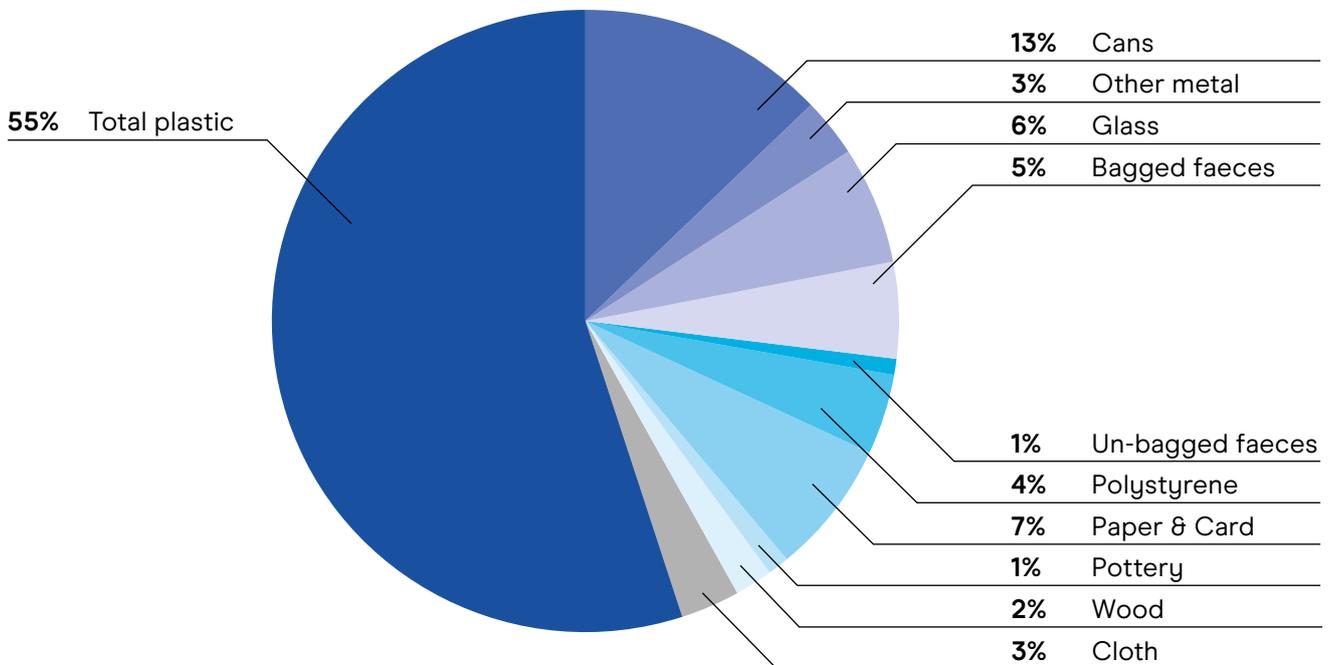
If every time someone visited our canals and rivers they picked up and disposed of just one piece of plastic, within a year there would be no plastic left.

Plastics – biggest source of litter

The majority of the litter found along and in our canals each year is plastic (59% including polystyrene) and a further 29% is easily recyclable (paper, card, metal and glass). **If the amount of single use plastics could be reduced**, reused or recycled or if easily recycled materials were disposed of correctly, **we could reduce the amount of litter in our canals and rivers by well over 80%**. This will improve these spaces, making them more enjoyable places to be, as well as reducing the cost burden for the Trust.

Our study found that plastics and litter is also dropped over boundary walls from buildings next to the canal, or off bridges, and some is blown or washed in from littered or untidy areas next to the canal. As well as raising awareness amongst people using our canals and rivers, we need to work more closely with our neighbours to tackle the problem.

Composition of plastic & litter found in / along canals & rivers



Where does this plastic and litter go?

Plastic and litter along our canals and rivers is either collected by our litter-pick teams or is washed or blown into the canal where it floats or sinks.

If the litter floats, it will move with the prevailing flow or wind and either become trapped in a reed fringe, against a moored boat or up against a lock gate. Alternatively it will keep moving until it is washed out to sea at one of the 20 locations where our canals or rivers connect with tidal water or larger rivers.

We have calculated that over **1,562 items of plastic** (bottles, food wrappers, bags etc.) **leave our waterways and head towards the sea every single day**, equating to more than 500,000 items each year.



Summary of our research findings

In December 2018 and January 2019, we undertook our first major investigation into plastics and litter on our waterways to better understand the scale of the problem.

Working with Coventry University, we sought to take a snapshot of the quantity of plastics and litter observed or found at 15 representative locations along our 2,000 miles of waterways in order to calculate the impact on canals and rivers as a whole.

We found that:

The single largest type of litter found along our canals is plastics, this includes food wrappers, bottles and polystyrene.

Our research found that the amount of plastics and litter along a stretch of waterway does not relate to the surrounding population, levels of deprivation in the area or how much the towpath is used. A considerable amount of plastics and litter ends up on towpaths and in the water from land and buildings alongside the canal or by being dropped from bridges.

Microplastics – small particles of plastic less than 5mm in size – were found in the sediment in our canals. Microplastics are one of the most harmful forms of plastics as they are easily eaten by wildlife and fish. We found similar levels to those found in rivers in the north-west of England, the River Thames and the Rhine-Main in Germany. Levels range from very low levels to amongst the highest found anywhere to date.

Taking action

What we can do

The stakes are high. We cannot leave the future of our canals and rivers to chance. We need to act locally now to ensure these waterways are fit for life – our life, plant-life and wildlife.

Our research has shown that to truly tackle the problem of plastics and litter we need to:

- take a more proactive approach in tackling it at source.
- be more innovative in our response.
- be even more active in removing it from our waterways.

To achieve this, we are introducing a three-pronged approach:

- 1 Increasing people's awareness of the problems that it causes, working with neighbours, businesses and our partners to encourage people not to drop it and, where possible, toughening up enforcement on those who do.
- 2 Changing the plastic products that we buy and use – reducing 'single-use' items that do not get recycled and improving collection and recycling.
- 3 Increasing our efforts to collect and recycle it where possible; and calling on more people to help us do so.

Taking action: increasing awareness

- Raise awareness of the problems of plastics and litter with the communities along our waterways so people understand that what is happening in their neighbourhood impacts on the oceans and seas.
- Collect and publicise data on the scale of the problem and how we are addressing it.
- Work with partners to create 'plastic-free zones' in target problem areas.
- Work with neighbouring landowners, businesses and councils to reduce litter coming onto the waterway from adjacent land.

Taking action: changing our products

- Ensure our cafes and shops are not adding to the plastic problem through the items we sell or the packaging that we use.
- Develop links with recycling companies and re-processors – organisations that repurpose waste into new products.
- Encourage the use of high-recycled content products throughout the Trust to help support a market demand.

Taking action: collecting more plastics and litter

- Use new technology to collect floating plastic and prevent it continuing its journey to sea.
- Increase the number of 'offside' litter collections – removing items from canal banks on the opposite side of the towpath.
- Create 'plastic-free zones' and aim to achieve Government Litter Code of Practice grades A or B across our waterways.
- Improve recycling levels by separating recyclable items from all our litter collections.

What you can do

With 2,000 miles of canals, rivers, reservoirs and docks to care for this isn't something that we can do alone. We need everyone who lives or works alongside these waterways, who visits or uses them, walks to work, runs or cycles along them, to play their part.

- Volunteer with us – we have hundreds of Towpath Taskforce litter-pick events, on and off the water, taking place around the country.
- Swap from single-use items to reusable – cups, bags, cutlery.
- Don't drop it – take it home and recycle it.
- Pick it up – **If every visitor who used our canals and rivers picked up just one item of plastic and disposed of it correctly, within a year there would be no plastic left.**



What we can do together

Public attitudes are clear – people are fed up of plastics and litter, they are sick of the impact it has on where they live and they are concerned about marine life being put at risk. By working together we can make a difference. Together we can make life better by water.

canalrivertrust.org.uk/get-involved

[#PlasticsChallenge](https://twitter.com/PlasticsChallenge)



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