Canal &
River Trust
Making life better by water

Customer Service Facilities
Shower Closures
Environmental Assessment

Background

Canal & River Trust (the Trust) maintains Customer Service Facilities (CSFs) across the canal network for use by our boating customers. Typically, these include Elsan disposal points and freshwater taps, but can also variably include toilets, showers and, occasionally, washing machines. This network of CSFs developed over a significant period in response to local investment decisions, rather than a coordinated exercise to provide regularly spaced facilities of uniform consistency and quality. Today, these facilities have variable usage patterns, are regularly vandalised and, owing to their piecemeal development, do not have consistent and appropriate equipment and fittings. Consequently, many facilities are out of service for long periods, are costly to maintain and as a result, many have already closed over time.

Because of the difficulties in maintaining facilities, the associated costs and customer complaints, the Trust undertook a boater survey from 29th September to 21st November 2024. This survey sought to understand boater customer behaviour and assessed their views on what facilities should be provided in the future. The response has been to develop and maintain a standard specification and cruising distance between CSFs to provide uniformity of service and certainty to boaters. This will involve the closure and relocation of some facilities, whereas others will have some services removed that are deemed to be additional to the core offering.

Consequently, the Trust developed and released a Customer Service Facility Policy Statement (CSF Policy) on 15th May 2025. It includes a minimum standard of the provision of Water, Waste (refuse and recycling) and Elsan points at minimum intervals of 1 day's cruising. The CSF Policy commits to the closure of all other facilities, which includes showers, and to undertake an environmental assessment of the closures.

Purpose

As showers are no longer proposed to be part of the minimum standard, there is a worst-case assumption that all boaters who currently use CSF showers could move to showering on their boats, which in turn might have environmental consequences. This paper sets out a high-level environmental assessment of whether the closure of CSF showers is likely to have a material impact on the canal environment to fulfil the commitment made in the CSF Policy.

Current situation, assumptions and exclusions

83 CSFs are listed as having showers on the Trusts asset database. It is not known whether all are fully operational or awaiting repair.

Footfall monitoring of CSFs was undertaken using automated door counters at selected locations. The results can be considered 'worst case' as they include visits by the Trust's cleaning teams, maintenance teams and/ or door activations where a shower did not take place. Mean visits per day are grouped as:

- high usage: 20 -29 visits per day;
- medium usage: 10 - 19 visits per day; and,
- low usage: between 0 – 9 visits per day.

The key findings from the boater survey conducted between September and November 2024 indicated that:

- 90% of respondents have a shower on their boat;
- only 30% of respondents stated showers were considered essential; and,
- a general unwillingness to pay extra for CSF facilities (57% not prepared to pay).

For the purposes of the assessment, it is assumed that all showers taken in a CSF are displaced to a boat shower, with water discharged directly to the canal. This is a worst-case assumption, because shower facilities are also provided at many private marinas, places of work and leisure facilities, where they may be used by both boating and non- boating customers. The Trust has anecdotal evidence that some of its showers are also used by non-boating customers.

Disposing raw sewage into canals and rivers from onboard toilets is illegal under various environmental laws and is a breach of the Trust's Byelaws and boat licence Terms and Conditions. The CSF Policy continues to

provide for Elsan disposal facilities at minimum intervals of 1 day's cruising for the disposal of sewage waste. Sewage waste is therefore excluded from this assessment.

The disposal of wastewater from sinks, showers, washing machines and dishwashers directly to the waterway is consistent with practices on other inland waterways including those managed by the Environment Agency and the Norfolk Broads Authority amongst others. Dishwashing and other washing activities are assumed to be unaffected by CSF closures.

Page 60 of the publicly available The Boaters Handbook states, *"It is permissible for the wastewater from sinks, showers, washing machines and dishwashers to flow straight into the waterway. However, normal detergents and cleaning products contain chemicals that can be harmful to fish and sensitive aquatic life. So to help keep the water as healthy as possible, put your cooking waste in the bin, and use environmentally friendly detergents"*

Assessing the scale of impact

Waterwise suggests that a standard shower in a UK house uses 10-15 litres per minute over a 10-minute period. However, water is a constrained resource on a boat, due to its integral tank, and therefore it is assumed that a boat shower will use less water and for shorter duration. This assessment considers 6 litres per minute (aligned with a water saving shower head as described by Waterwise) for an 8-minute shower resulting in approximately 48 litres of water discharged.

This suggests that the following **additional** volumes of water would be discharged at the High, Medium and Low usage locations, by boaters moving from CSF showers to showers on their boats:

Location	Visits	Estimated discharge per day
High Usage	20-29	960 - 1450l (0.96 - 1.45m^3)
Medium Usage	10-19	480 - 912l (0.48 - 0.91m^3)
Low Usage	0-9	0 - 432l (0 – 0.43m^3)

An average canal cross section is approximately 10m wide by 1m deep, therefore a 1km section would hold approximately 10,000m^3 of water.

This means that additional shower water input would account for approximately less than 0.02% of the total volume of water in 1km section of canal in a high footfall area and significantly less in areas of lower usage. This does not account for flow rates and other hydrological inputs (such as rainfall or feeder streams) into a canal section which would further dilute the shower water discharged.

Assessing the potential environmental impacts

Greywater from showers can contain the following:

- Soaps and detergents (phosphates, surfactants)
- Body oils
- Microplastics – although these were banned from UK cosmetic products in 2018[1] and no longer present in products on sale in England and Wales.
- Hair products (including dyes and bleaches)

Some of the above products (e.g. sodium lauryl sulphate used in shampoos and shower gels) have the potential to be toxic to aquatic life. However, shower products are generally used in very small quantities – approximately a coin sized amount (5-10ml) per shower), which are, in turn, diluted in up to 48 litres of water

[1] Defra (2019) World-leading microbeads ban takes effect. https://www.gov.uk/government/news/world-leading-microbeads-ban-takes-effect

per shower after which they are discharged into a significantly larger water body. Body oils etc., are natural organic materials and are assumed to break down easily in the aquatic environment.

Based on the dilution and biological activity in the aquatic environment, the component parts of shower water are not expected to give rise to significant potential environmental impacts.

Where emergency drought conditions prevail and there is the potential for a build-up of materials in a canal section, separate environmental assessments will be carried out on a location and case basis.

Potential climate change impacts

Showers typically involve the use of warm water that requires energy input to heat the water. The Trust heats water in CSFs using natural gas boilers or through electric heaters, both with associated greenhouse gas emissions (GHGs).

Moving to showers on boats means that the emissions would transfer from the Trust to boat owners as they would have to heat the water on their boats using gas, diesel or electric heating. However, as discussed above, showers on boats typically use less water and are shorter duration due to the constrained water tank, although these systems are less likely to be as efficient as those in CSFs.

It is therefore expected that there is no net difference in overall GHG emissions from the closure of showers in CSFs, because the efficiencies available through CSFs are offset by shorter, lower flow showers on board a boat.

Conclusions

Canals are subject to a wide range of high-volume, high impact pollutants which affect water quality including:

- Unattenuated run off from agriculture, roads and urban areas
- Historical industrial contamination
- Deliberate and accidental pollution events
- Sewer misconnections and Combined Sewer Overflow activations

The volume of spills and the regularity of these other incidents are of greater concern and impact to the aquatic environment and Trust prioritises its wider partnership working and engagement with the Environment Agency to attempt to resolve these issues.

In general, the closure of showers in CSFs is unlikely to give rise to significant environmental effects, for the following reasons:

- Disposing raw sewage into canals and rivers from onboard toilets is illegal under various environmental laws and is a breach of the Trust's Byelaws and boat licence Terms and Conditions. The rationalisation of CSFs will continue to provide Elsan disposal at agreed cruising distances around the canal network
- The potential for net additional showers because of CSF closures results in insignificant additional volumes of water being introduced into the canal environment (<0.02% of a given stretch of canal in a high footfall area and less in medium and low footfall areas).
- The products and component parts of shower water are unlikely to cause environmental impacts when used as recommended and in line with the Boaters Handbook. There is a significant dilution effect, and products are likely to be broken down by biological processes in the canal.
- There is unlikely to be any net increase in GHG emissions, as the overall emissions are likely to remain the same.

In adopting a precautionary approach, the Trust's Environment Management teams have undertaken a high-level screening assessment on a location-by-location basis, and the results are presented in Appendix 1. Where a potential impact is identified, a location-based impact assessment with consideration of mitigations will be undertaken prior to the closure of the identified CSF.