

The background image shows a canal construction site. A large blue flume is installed in the center of the canal, supported by a metal frame. The flume is surrounded by a blue tarp and metal scaffolding. In the background, there are trees and a bridge. The sky is overcast.

# Carbon Reductions using PortaDam Flumes

**Service/product:** PortaDam | **Customer:** Ringway Highways | **Location:** Longhope, Gloucestershire

OnSite's activities on inland waterways may involve draining sections of water such as canals and rivers where dry working access is required for critical maintenance of the watercourse infrastructure.

Historically, the default method to isolate and drain a section of watercourse, and maintain the natural flow of water thereafter, would involve overpumping the water beyond a temporary dam set up. This is commonly achieved using powerful diesel fuelled pumps which may operate for several days in order to complete the task, whilst generating harmful pollutant emissions to land, water and air.

OnSite and Ringway Highways are committed to minimising environmental impact and ultimately achieving net zero emissions, so any sustainable solutions that meet the requirements of the task are given serious consideration.



## The solution

For the Longhope project, the OnSite team installed a PortaDam system to isolate and de-water a section of the brook to facilitate scour protection works on the bridge abutments.

The isolated section was also able to accommodate two x 600mm flumes to maintain the natural gravitational flow of Longhope brook. The flumes remained in place for one week whilst the essential maintenance and repair works were safely completed by Ringway.



## The outcome

The PortaDam system with integrated flumes resulted in the following estimated carbon emission reductions compared with overpumping:

- 1,803 litres of diesel saved
- 4,525 kg CO<sub>2</sub>e of climate forcing emissions avoided
- 27 kg of NO<sub>x</sub> emissions abated (contributes to smog formation)
- 0 particulate emissions (PM10, PM2.5)

The client not only achieved carbon emission reductions but lower overall costs using this alternative technique to overpumping.

The team demonstrated OnSite's commitment to implementing sustainable ways of working, in line with our journey to Net Zero whilst delivering works safely, effectively and efficiently.



## Want to read more?

Established in 1977, OnSite is part of SSI Services (UK) Ltd, a division of South Staffordshire Plc and has grown through strategic acquisition and organic expansion to become one of the UK's leading providers of specialist contracting services.

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