

# GLASGOW'S 'SMART CANAL' – REPURPOSING CANALS AS READY-MADE SOLUTIONS


An award-winning drainage system in Glasgow combines modern technology with an 18th century canal to unlock regeneration across Scotland's central belt.

The North Glasgow Integrated Water Management System uses pioneering sustainable drainage principles to provide flood risk reduction, water quality management and habitat improvement for local communities. Believed to be the first 'smart canal' in Europe, it unlocks 110 hectares of land for investment, regeneration and development. It also paves the way for more than 3,000 new homes to be built, while avoiding over 30,000 tonnes of operational CO<sub>2</sub>.

With north Glasgow's sewer systems reaching capacity, new solutions for surface water management were needed. Engineering

firm AECOM developed the £17m 'smart canal' concept on behalf of Scottish Canals, Glasgow City Council and Scottish Water within the Metropolitan Glasgow Strategic Drainage Partnership to tackle this challenge. Funding for the scheme was provided by the Glasgow City Region City Deal and two ERDF programmes (Green Infrastructure Fund & Scotland's 8th City – the Smart City).

Meteorological forecasting data and sensors give advanced warning of heavy rainfall and automatically trigger a lowering of the water in the Forth & Clyde Canal. By enabling real-time operational management, the canal will become an intelligent water management system, proactively providing surface water storage when required.



**“** *The Smart Canal is helping to manage flood risk, allowing areas of the city to be regenerated whilst also providing safe active travel routes for people to walk, wheel and cycle. I hope other countries with similar historic assets can learn from the impressive approach taken here in Glasgow to mitigate against the damaging impacts of climate change.*

- Scotland's Minister for Zero Carbon Buildings and Active Travel, Patrick Harvie MSP, COP26 in Glasgow in November 2021