

North Glasgow Integrated Water Management Strategy

Case Study
Scotland, UK
Scottish Canals, Glasgow City Council and
Scottish Water
Dec 2012 – Aug 2013

The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) commissioned AECOM to undertake a feasibility study investigating whether or not the Forth and Clyde canal should take surface water from North Glasgow as a means to supporting regeneration and development aspirations. A significant part of North Glasgow is constrained, with sewer systems at capacity and no natural watercourse in the area. Using previous knowledge of the canal network, AECOM had a clear understanding of its potential to manage surface water and flooding issues in this location.

AECOM was initially approached by Scottish Canals to carry out a study in order to ascertain areas within the North Glasgow catchment that could be hydraulically connected to the Canal and to develop a strategy to provide a lower cost sustainable approach to surface water drainage within the North Glasgow catchment.

The canal's capacity is finite when receiving surface water flows. An innovative solution was therefore created, which proposes that the canal be dynamically utilised with SUDS systems as a means to providing multiple benefits. It is proposed that the canal and SUDS features be made to store water and be proactively drained prior to heavy rainfall. This would allow for new, attractive public spaces whilst facilitating a more positive perception of SUDS and creating opportunities for future water resource management.

AECOM hosted a number of stakeholder workshops bringing together the three main clients Scottish Canals, Glasgow City Council and Scottish Water, together with other influencing parties including SEPA. By using detailed questionnaires and facilitating collaborative discussion to determine each parties' priorities and prior knowledge, AECOM were able to put forward a surface water management strategy for each of the 12 identified water management areas informed by the baseline data and additional knowledge from the key organisations.

Water quality is also at the forefront of the study, with Biomatrix incorporated into the project team providing advice on innovative floating ecosystems to provide additional habitat and water quality treatment within SUDS systems and also in the canal network.

This project has allowed our client to think differently, innovatively proposing the use of the canal network as a drainage conduit and providing a cheaper, more sustainable alternative to expanding Glasgow's constrained sewerage system.

Key Features

- Surface Water Management Strategies
- Environmental Assessment
- Geotech Assessment
- Water Assessment
- Hydraulic modelling

Programme

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Contract Value

GBP £101,000

