

Integrated Wastewater Framework

# Channelling waste through 30km of pivotal pipelines

**£120m**

/ Project value

**July 2004**

/ The build commenced

**July 2012**

/ The build was completed

In partnership with Northern Ireland Water (NIW), we successfully delivered over 100 projects, with a construction value of £145 million, as part of a strategic Integrated Wastewater Framework. Beginning in 2004, and extended until 2012 due to the calibre of work provided, we assumed full responsibility for NIW's critical infrastructure processes and networks in the Eastern Division. Operating on an actual cost, open book basis, the scheme addressed sewerage issues through improvements, refurbishments and construction programmes.

**The Brief**

NIW required an experienced contractor to assume full responsibility for the investigation, design and construction of improvement works to existing Wastewater Treatment Works (WwTW) combined with the refurbishment, replacement and the development of new facilities to ensure the compliant treatment, storage and transfer of waste throughout the Eastern Division.





### The challenges

Poor ground conditions, exemplified within the Comber Road Pump Stations, or rock deterioration at Seahill WwTW, represented common problems to be circumvented. Hydraulic profiling to fit each individual WwTW site and the maintenance of existing outputs across all WwTW locations, and replacement pipeline projects, were additional elements of the eight-year Framework. Importantly, robust communication processes, and community consultation exercises, were overarching themes of the NIW partnership.

### GRAHAM's solution

With a proven track record of on time, on budget project completion, plus the 100% successful ratification of all planning permissions, we were rewarded with a further three-year contract extension until 2012. Adding value through open book management, and gainshare mechanisms (e.g. saving over £1.2m in 'Package I'), we defined the overall programme and cost. We also sequenced each individual project in line with NIW's priorities, our resourcing capabilities and stakeholder consent. The Framework incorporated the construction of new build treatment works, upgrades to existing treatment works and pumping stations, and the construction of pipelines and long sea outfalls. Where larger wastewater schemes involved treatment process plants, we engaged with trusted specialists, exemplified in the creation of a Joint Venture with long-term partner Biwater. In total, over 30km of pipelines were constructed through the adaptation of open cut, directional drill, Cured-In-Place-Pipe (CIPP), micro-tunnelling, pipe jacking and pipe bursting methods.

### Outputs & Benefits

- / **Garnering Trust:** Contract extended for a further three years until 2012
- / **Collaboration:** A hugely successful Joint Venture with Biwater was created
- / **Project Efficiency:** Over 100 projects successfully completed
- / **Length and Breadth:** Over 30km of pipeline constructed
- / **Transparency:** Open book approach adopted with gainshare mechanisms



For more information on how we're delivering lasting impact:

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**GRAHAM** 