



## CONSTRUCTION OF NEWRY SEWERAGE IMPROVEMENTS

Newry Sewerage Improvements by Trenchless Technology

**Client: Northern Ireland Water**

### SUMMARY:

**Status:**

Completed in 2010

**Procurement:**

NIW Framework for  
Small Sewerage Schemes  
(Select list of 5 contractors)

**Services Provided:**

Optioneering / Detailed Design,  
Preparation of Contract Documents,  
Assessing Tender Submissions,  
Construction Management

Nicholas O'Dwyer Ltd. were appointed by Northern Ireland Water as Consultants for the design, procurement and project management of the upgrade to the existing Newry sewerage network. The project involved two separate sections of the sewerage system in the city to be upgraded, first section involved the abandonment of an existing wastewater pumping station (WwPS) by providing a gravity solution, second section an upgrade to provide additional capacity for the sewer network on the Belfast Road.

#### Section 1 - WwPS Abandonment:

To provide a gravity solution for an existing development the proposed sewer had to cross under the Clanrye River to an existing trunk sewer in the middle bank (a strip of land approximately 15 metres wide, between the river and the Newry Canal). The works involved 71 metres of a 250mm diameter uPVC sewer diversion, 30 metres of which was under the river. To mitigate risk during construction the river crossing was constructed using trenchless pipelaying methods, namely Pipe Ramming. This method of construction required a drive and reception pits. The drive pit was positioned in the middle bank and the reception pit to the other side of the river which was to the rear yard of a private dwelling. As both pits were adjacent to the river, these had to be de-watered during construction. Then a 300mm diameter steel pipe was rammed into place at the level specified and the 250mm diameter uPVC pipe was threaded through the steel pipe.

#### Section 2 – Belfast Road

The work involved constructing 300mm diameter uPVC combined sewer on the Belfast Road, adjacent to a Police Station. The road was subject to heavy traffic during normal working hours. As the road could not be worked on with temporary traffic lights during 6am to 8pm, the work was carried out at night and reinstated to allow traffic to flow freely each day.

