



North Coast WwTW Northern Ireland

Design and construction (by Bewater GRAHAM JV) of a new treatment works at Craigtown More, construction and refurbishment of twelve pumping stations, installation of pipelines between the pumping stations and the new treatment works, and construction and refurbishment of outfalls.

The scheme will rationalise the existing sewerage systems and reconfigure the network so that wastewater from the urban areas of Castlerock, Articlave, Coleraine, Portrush and Portstewart will be collected and transferred to a new two-stage treatment works at Craigtown More - a greenfield site between Portrush and Portstewart.

The wastewater will be treated to a much higher standard before being discharged offshore through a new long sea outfall pipe, where the depth and natural currents will provide effective dispersion.

In addition, the North Coast scheme involves the laying of some 24 kilometres of pumping mains and gravity sewers along with the construction of eight new pumping stations. Five existing pumping stations will be refurbished with other ancillary upgrades made.

Client	Department for Regional Development - Water Service
Consulting Engineer	MWH – RPS Kirk McClure Morton Design for Bewater GRAHAM by: Ferguson & McIlveen
Value	£35,500,000
Contract Period	2 years

The scheme is a design and build contract and has been divided into four packages of work

PACKAGE A - Pumping Stations

This package of work includes the construction of new and the refurbishment of existing pumping stations which are required to transfer flows to the new regional wastewater treatment works at Craigtown More. The stations will also provide storm water storage and ensure that emergency discharges during storm conditions comply with statutory requirements.



New pumping stations with will be constructed at:

- **Articlave** - within the site of and replacing the existing wastewater treatment works.
- **Castlerock** - within the site of and replacing the existing pumping station. The new building will be buried and landscaped.
- **Coleraine Terminal** - within the site of and replacing the existing wastewater treatment works at Ballycairn.
- **Dhu Varren, Portrush** - adjacent to the railway line at West Strand. The new buildings - designed in conjunction with Coleraine Borough Council - will incorporate public toilets, baby changing and water sports/ changing facilities.
- **Causeway Street, Portrush** - on the open amenity land near the Crocknamack Road junction. Again this building will be fully integrated and landscaped.
- **Lansdowne, Portrush** - adjacent to the old lifeboat station. The new visually pleasing pumping station will incorporate a public viewing platform.
- **Riversdale** - within the site of and replacing the existing pumping station
- **Salmon Fisheries** - within the site of and replacing the existing pumping station.

Existing pumping stations will be refurbished at: **Castlerock Promenade, Ardina Cottages, Ballycairn, Harbour and Blackrock.**

PACKAGE B - Pipelines

The construction of the new wastewater treatment works necessitates the laying of some 24km of pumping mains and gravity sewers to provide the interconnecting pipework between each of the various pumping stations (named above), to connect the pumping stations with the main works site at Craigtown More and to divert existing sewers into the new pumping stations.

To reduce the environmental impact and to minimise disruption, almost half of the pipelines will be installed using trenchless techniques (where ground conditions and absence of rock permit). These innovative and sustainable methods of pipelaying avoid the excavation of a continuous trench and only require pits to be dug at intervals.

The construction of the Lansdowne pumping main which runs through Portrush town centre (Lansdowne Crescent, Causeway View and Main Street) will utilise sliplining techniques to pull a new pipe through an existing main. This approach will ensure that disruption to town centre business is kept to an absolute minimum.

PACKAGE C - Wastewater Treatment Works

This involves the construction of a state-of-the-art wastewater treatment works (WwTW) at Craigtown More. The main elements of the WwTW are being constructed in a natural hollow to enable the perimeter to be landscaped and hence the visual impact to be minimised.

PACKAGE D - Long Sea Outfall

The outfall when complete will be approximately 1,275m long and will place the discharge approximately 1,000m from the nearest point on the shore. Various surveys of the seabed and inter-tidal flora and fauna have been undertaken to demonstrate that the proposed outfall route does not impact on any significant or rare seabed or inter-tidal plant and animal communities.

Programme

The programme of works for the North Coast Wastewater Treatment scheme has been carefully planned to minimise disruption during the busy tourist season. Construction restrictions have been put in place to ensure that no major works are ongoing on the roads while high volumes of holiday makers are visiting Portrush or while important events are being held. Weekly meetings take place with DRD Roads Service to facilitate programming and co-ordination with other utility work in the area and all pipe laying activities are programmed in accordance with Roads Service requirements. To keep key stakeholders informed, the project team also meets each month with staff and elected representatives from Coleraine Borough Council, Coleraine and Portrush Chambers of Commerce, and Portrush Community Association.



