

**THEME:**

Environment

**FUNDING (ERDF+MATCH):**

€35,047,604.24

**MATCH FUNDING:**

Department of Agriculture, Environment and Rural Affairs; and the Department of Housing, Planning and Local Government

**LEAD PARTNER:**

Northern Ireland Water

**PROJECT PARTNERS:**

Northern Ireland Water, Irish Water, Agri-Food & Biosciences Institute (AFBI), Loughs Agency and East Border Region

**Start Date:** 21/01/2019

**End Date:** 30/04/2023

 <https://swellproject.com/>

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## SPECIAL EU PROGRAMMES BODY

### Project Case Study: Shared Waters Enhancement and Loughs Legacy (SWELL) - Phase 2

Phase 2 of the SWELL project will help improve water quality in the shared transitional waters of Carlingford Lough & Lough Foyle through the upgrade of wastewater assets on both sides of the border.

The water quality within a coastal water body is affected by hydrodynamic, chemical and biological processes. Since environmental pressures do not recognise international boundaries and borders, SWELL adopts a strategic cross-border approach to delivering improved water quality in the shared waters, considering each lough catchment as a single ecosystem, impacted by polluters on both sides of the border.

The desired improvement to water quality is being implemented through increasing the quality and/or decreasing the quantity of wastewater discharging to the receiving water bodies deemed to be impacting on these shared transitional waters.

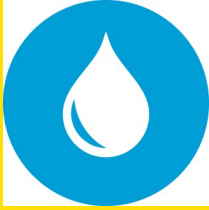
*“Northern Ireland Water is pleased to be lead partner in this strategic EU-funded project which will improve wastewater treatment for an additional 10,000 people on a cross-border basis.”*

*“The project provides a welcome opportunity for both water utilities to work collaboratively to prioritise and align projects in a coordinated way so as to make maximum positive impact on the shared water bodies on the island of Ireland.”*

Paul Harper, Director of Asset Delivery, NI Water



Warrenpoint Waste Water Treatment Works



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Each of these schemes will consist of a number of activities including catchment studies, ecosystem modelling and capital upgrades (or construction packages) of key wastewater assets in Ireland and Northern Ireland.

SWELL will also implement a holistic modelling strategy that will amalgamate the various catchment and marine models to form an ecosystem model that intends to be both unique and innovative in its detail and scale.

This unique ecosystem modelling approach with built-in source apportionment, represents a first-time integration of urban drainage, river, coastal and ecology models on a large-scale catchment-wide basis.

The SWELL ecosystem models can be used to track the pathways of nutrients and contaminants from wastewater, industrial or agricultural sources to determine their impact on the marine environment within both sea loughs.

Ultimately the models will assist water utilities and regulatory bodies on both sides of the border by identifying best approaches to achieving further improvement of overall water quality in the future.

*"Through engineering excellence, strategic catchment investigation and modelling, SWELL will deliver sustainable upgrades to a total of eight wastewater assets on both sides of the border and make a positive contribution towards 'Good' ecological status under the EU Framework."*

Martin Gillen, SWELL Programme Lead, NI Water



Loughs Aerial View

**Key outputs :**

Wastewater treatment - Additional population served by improved wastewater treatment: 10,000

Sewerage network and waste water treatment projects to improve water quality in shared transitional waters: 2