

SDG

STRONGER
TOGETHER

LOUGH ISLAND REAVY RESERVOIR KILCOO

CONTRACTOR

BSG

SU CONTRACTOR

CM Civil Engineering Ltd

PRECAST MANUFACTURER

Tracey Concrete Ltd

DATE

2024

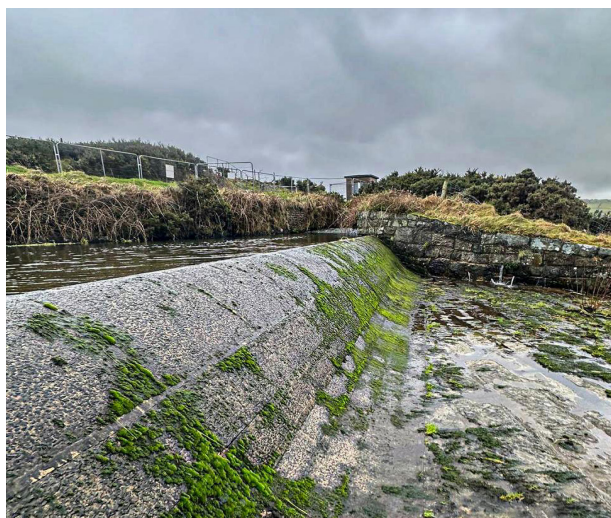
PROJECT SUMMARY

SDG supported Tracey Concrete in delivering bespoke precast weir sections for the £2 million Lough Island Reavy Reservoir improvement project. The scope included replacing the overflow spillway and weir to enhance reservoir safety, as well as upgrading the Pumping Station serving Drumaroad Water Treatment Works. These improvements will boost water supply reliability for customers in County Down and Belfast—particularly during high-demand periods. Upon completion in March 2025, the scheme will ensure a more resilient water supply to both Drumaroad and Fofanny Water Treatment Works.

THE CHALLENGE

Given the complex geometry of the weir, an off-site construction method was chosen, leading to the use of precast concrete manufactured in sections. As with all precast water-retaining structures, preventing water ingress posed a unique challenge for traditional waterproofing methods.

The spillway components were bespoke in shape, requiring precise alignment and robust connections to guarantee both structural integrity and watertightness. The key challenge lay in designing a connection system that would allow easy assembly of the precast units without compromising on quality or prolonging construction timeline.



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OUR SOLUTION

With traditional cast-in waterstops ruled out, SDG recommended the BT Spannschloss Turnbuckle system in combination with a RubberElast sealing strip. This innovative approach enabled precise alignment during assembly, removing the need for on-site grouting and curing. The turnbuckle system provided immediate strength and durability, facilitating rapid installation and avoiding delays. Meanwhile, placing the RubberElast under compression between the units created a continuous watertight seal, ensuring immediate and long-term waterproofing performance. SDG also supplied technical guidance, including detailed drawings and site-level support, to ensure proper implementation of the system.

Products Supplied

BT Spannschloss Turnbuckle RubberElast®



THE RESULTS

By adopting the BT Spannschloss Turnbuckle system, the assembly process was streamlined, installation time was reduced, and the need for grouting or curing was eliminated. Its precise alignment capability ensured a high-quality finish, while the RubberElast strip delivered dependable, long-lasting waterproofing. Bolstered by SDG's technical support, the solution proved both cost-effective and durable, meeting the project's unique needs and standards.

