

Lower Largo WwTW Temporary Treatment Solution

Fast-tracked installation of a temporary treatment solution to improve bathing water quality at Lower Largo beach.

Problem Overview

Lower Largo WWTW required upgrades to bring final effluent quality up to SEPA bathing water standards ahead of the 2026 season. The fixed regulatory deadline created a significant challenge, with a fully operational solution needed within a compressed programme.

There were also several on-site constraints to manage, including seawater ingress into the existing sewer network, limited access to power and utilities, and the need to minimise disruption to the local community and beachfront.

Key Benefits

- High-efficiency wastewater treatment system integrated alongside other technologies
- Delivery within a highly constrained programme
- Flexible, modular solution with a clear pathway to permanent infrastructure
- Improved bathing water quality, targeting full compliance with SEPA standards
- Reduced disruption to the local community and beach area



Outcome

The decision to use modular and rental treatment units resulted in quick procurement and reduced lead times.

RSE delivered an m-MBBR® (Temporary Treatment Solution) for Scottish Water, designed to rapidly improve treatment performance within the constrained timeframe. The solution includes a new pumping station to transfer flows to a purpose-built treatment area, before returning treated effluent to the existing outfall.

To mitigate programme risk and long equipment lead times—up to 48 weeks for tertiary filters and UV units—we adopted a modular, hire-based approach. This enabled faster deployment, reduced upfront cost, and provided flexibility while long-term asset decisions were considered.

The project team worked at pace to deliver a technically complex solution, adapting quickly as challenges emerged. Investigations confirmed seawater ingress along the sewer network at Lower Largo beach, with targeted surveys and remedial strategies progressed in parallel with construction.

Alongside the technical delivery, practical steps were taken to minimise disruption to the local community. These included tailored traffic management, evening removal of temporary controls, proactive communication with residents, and the use of noise mapping to manage local impact.

The solution was delivered as a temporary installation, with a clear pathway for conversion into a permanent wastewater treatment asset—reducing future cost and programme for Scottish Water.

