



1 Roof nearing placement on the BTF 2 Installation of the BTF distributor 3 Construction of the BTF

## Greymouth Wastewater Treatment Plant

**Project Location:** Greymouth  
**MWH for** Grey District Council  
**Disciplines:** Civil, Process



Greymouth is the largest town on the west coast of New Zealand's South Island and the most significant of the areas subject to the governance of the Grey District Council (GDC). The area's main industries are mining, forestry and fishing and the town's major industrial dischargers include fish processing plants, the hospital and the iconic Monteith's Brewery. Tourism is in a growth phase for the area.

Greymouth's population of 10,000 sits either side of the mouth of the Grey River and the town had been discharging untreated sewage into the Grey River for over 100 years. With the advent of the Resource Management Act in 1991, it was apparent that things had to change. A two staged approach (for affordability) for improvements to the Grey Sewerage Scheme was developed by the GDC approximately 20 years ago.

The centralisation of Grey District Council's two existing wastewater treatment plants to a new single plant was the culmination of the 20 year scheme for a wastewater collection, treatment and disposal system to improve the quality of discharge to the Grey River. Centralising the wastewater treatment to a single site has created greater efficiency, effectiveness, control and consistency.

Additionally, the treatment solution itself underwent a major change with the implementation of an innovative biological trickling filter (BTF). It is the ability of a BTF to transform human waste into bacterial biomass with no solids handling that provides a massive advantage over the more traditional process. It eliminates the need for clarifiers, solids handling system and wetlands. As well as meeting iwi expectations, this system avoids the significant operational and cost disadvantages of dealing with settled solids or sludge. The covered BTF is also used for the treatment of potentially malodourous air extracted from the plant, which addresses the main concern raised by the affected parties during consultation.

### Judging & Copyright Statement

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