

Greymouth Sewerage Scheme

Improving the Health of the Greymouth Environment

July 2014



Heart of the West Coast

MĀWHERA
GREY
DISTRICT COUNCIL

What We Have Done:

Grey District Council commenced construction of an improved wastewater collection, treatment and disposal system around 10 years ago with a long-term vision of a two-stage plan.

Stage 1 was completed in 2006 with the construction of both the Johnston Street and Cobden screenings and ultra violet (UV) treatment facilities to improve the quality of discharges on both sides of the Grey River.

Stage 2 is the current construction project – separation of the existing combined stormwater and sewers by installing new wastewater only pipework within the streets and the construction of a new Wastewater Treatment Plant located at Preston Road.

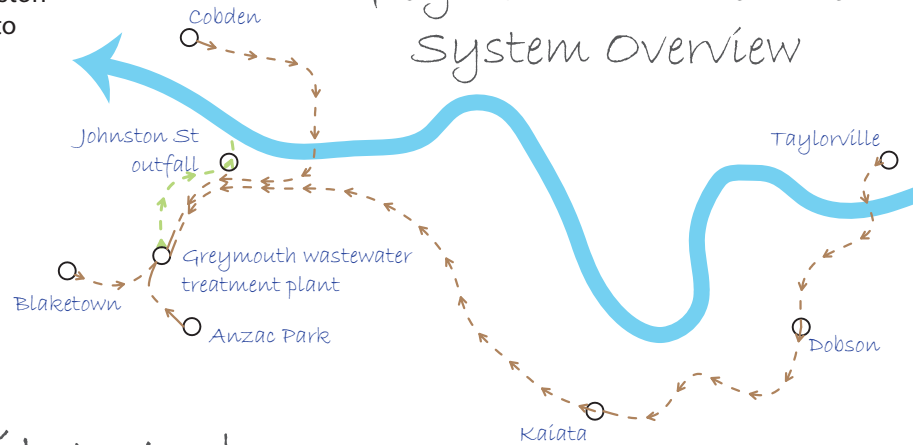
Grey District Council is close to completing Stage 2 which will mark the end of \$38m of expenditure to provide new infrastructure including:

- 65 km of new wastewater sewer mains
- 22 new wastewater pump stations
- 870 new access structures/chambers
- A new Wastewater Treatment Plant
- An upgrade to the Johnston Street UV facility

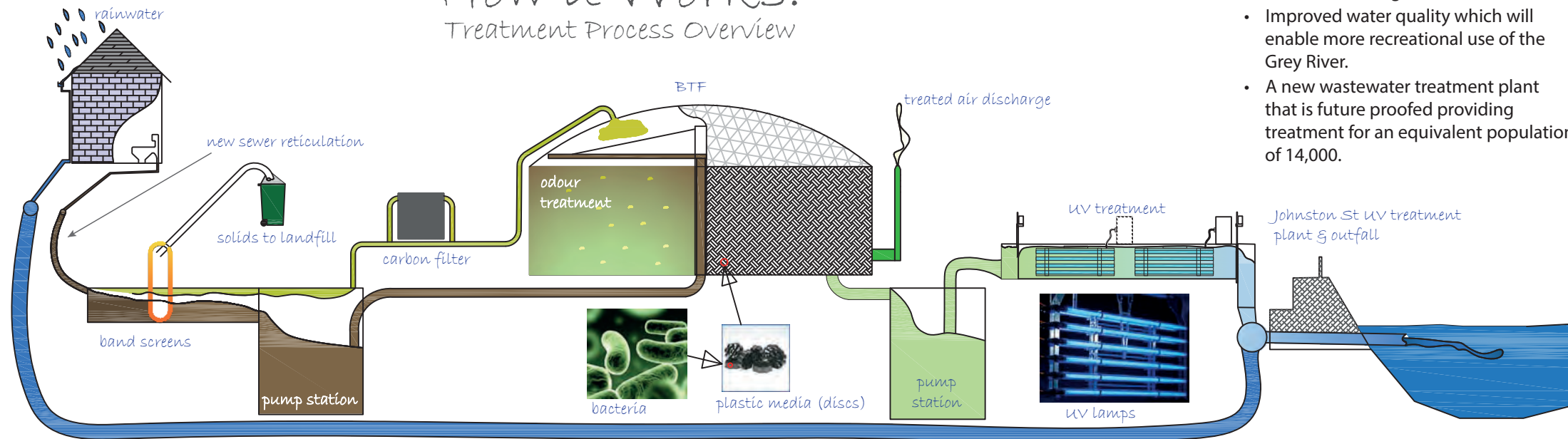
Community Benefits:

- Successful application for government funding eased the burden for rate payers.
- Improvement in the quality of the Grey River due to a higher level of wastewater treatment prior to discharge.
- The change from land based disposal to piped collection and centralised treatment for the communities of Taylorville, Dobson and Kaiata.
- State of the art wastewater treatment plant produces no sludge, lowering costs now and in the future.
- Elimination of numerous combined overflows with wastewater discharge reduced to a single outfall.
- Improved water quality which will enable more recreational use of the Grey River.
- A new wastewater treatment plant that is future proofed providing treatment for an equivalent population of 14,000.

Greymouth Wastewater System Overview



How it Works: Treatment Process Overview



Sewer Separation:

Wastewater will flow into a new pipe network. Rainwater is being collected in the existing pipe system.

Wastewater Pump Stations:

New and upgraded pump stations will move the wastewater from all areas through to the new Wastewater Treatment Plant.

Screens:

New screens will capture any material larger than 3mm and remove it from the flow passing forward to be treated. The material removed is washed, compacted and placed into wheelie bins for disposal to landfill.

Odour Treatment:

Air is extracted from operation aerators and treated either through the carbon filter and/or the BTF to minimise unwanted odours.

Biological Trickling Filter (BTF):

In here bacteria grows on the plastic discs (media). Wastewater is trickled down through the discs, treated by the bacteria and a cleaner liquid leaves the tank. Odour is also treated by the bacteria.

UV (ultra violet) Lamps:

The treated wastewater flows past the UV light which destroys the bacteria prior to discharge to the Grey River.

Stormwater:

Rainwater collected from properties and streets flows in the stormwater pipes to a number of outlets including Johnston Street where it is discharged into the Grey River.