

Introduction

East Gippsland Water supplies drinking water to the townships of Orbost, Marlo and Newmerella using water sourced from the Rocky and Brodribb Rivers.

The Orbost Water Treatment Plant came into operation in 1998 and was upgraded during 2001 to increase its capacity and water flow rate.

During 2011 two Amiad filters were installed at the treatment plant - further improving the water quality and increasing the water treatment plant capacity, to meet future population growth in the area.

Water collection and treatment

The main supply of water is from the Brodribb River, which is pumped along an 11km pipeline into the raw water basin. Water is also collected via gravity from the Rocky River and fed 21km into the raw water basin.

Water is transferred from the basin to the water treatment plant, where it is treated to remove any dirt and other unwanted particles.

To treat the water a coagulant is added, which draws all of the dirt and other unwanted particles together. This is known as a floc. The water then enters the second part of the treatment cell where the floc is encouraged to settle out along the cylindrical tubes. The clear water is able to continue and goes through a filter containing sand and charcoal (anthracite).

The treated water is then disinfected and pumped to the one million litre (ML) clear water tank, before it is supplied to the townships of Orbost, Marlo and Newmerella. There is also a 40 million litre clear water basin, which holds excess treated water that is available for use as required.

Backwash system

There is also a backwash system. This blasts the sediment that has formed within the treatment cell back into the water column where it is passed back to the backwash tank. The sediment is then able to settle out. The water coming out of the tank is passed back into the basin for reuse and the solids are sent to the wastewater treatment facility where they are reused.

Plant control

The treatment plant control system incorporates a Programmable Logic Controller (PLC) for fully automatic stop/start control of the plant, automatic backwashing, desludging (removal of sediment within the system), alarms and indicators. This allows operators to remotely access and operate the water treatment plant.

Remote monitoring by SCADA (Supervisory Control and Data Acquisition) operates continuously and provides early warning of faults or performance issues. The focus is on maximising operational efficiency, monitoring equipment reliability and compliance, and improving customer service.

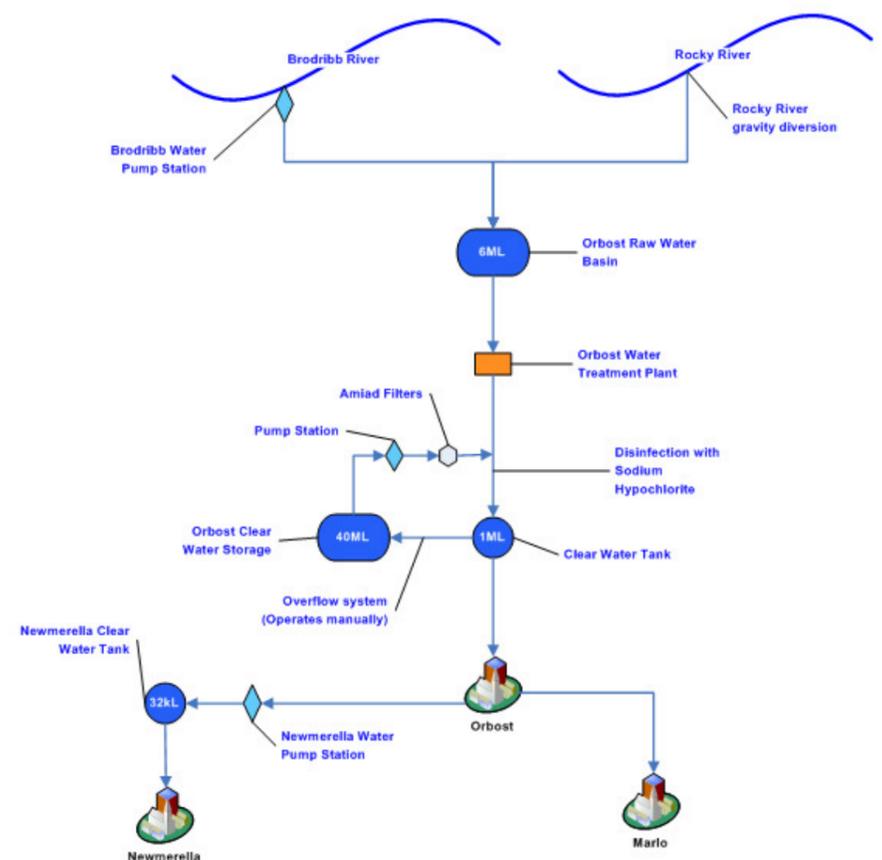


Rocky River



Brodribb River

Orbost Water Supply System



The six million litre raw water basin

For more information –
 Contact East Gippsland Water on
 1800 671 841 or by emailing
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 Alternatively visit the Bairnsdale office at
 133 Macleod Street, Bairnsdale
 weekdays during business hours.