

Introduction

East Gippsland Water sources drinking water from the Mitchell River at Glenaladale for the townships of Lindenow, Lindenow South, Walpa, Bairnsdale and surrounds, Eagle Point, Newlands Arm, Paynesville, Bruthen, Sarsfield, Nicholson, Swan Reach, Johnsonville, Lakes Entrance and surrounds, Lake Tyers and Nowa Nowa.

In 2005 Woodglen Storage 1 was built. This basin holds approximately 850 million litres (ML) of water.

During 2010 Woodglen Storage 2 – with the capacity to hold approximately 715ML of water – was constructed, along with the Woodglen Water Treatment Plant. This plant can treat up to 20ML of water per day.

Up to 500ML of water can also be stored underground in an aquifer which can be pumped up to the storages or treatment plant as required. This is known as Aquifer Storage and Recovery.

Water collection and treatment

The Mitchell River begins where the Dargo and Wonnangatta Rivers converge. The upper catchment is predominantly forested public land, including sections of the Alpine National Park and Mitchell River National Park. The river flows through high cliffs and several gorges before entering the Mitchell River flats and ending in the Gippsland Lakes.

East Gippsland Water pumps water from the Mitchell River at Glenaladale to the Woodglen Storages, four kilometres away.

Water is then transferred from the basins by gravity 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 air is added. The floc attaches to air bubbles and rises to the top of the cell. Approximately every 120 minutes the water level in the flocculation cell rises, allowing the floc to overflow from the chamber and into the backwash recycling system.

The treated water is then passed into a 1ML clear water tank. At the outlet of the plant, the water is disinfected and fluoridation occurs. This water is then supplied via the main supply pipeline to Wy Yung and the rest of the Mitchell supply system as far afield as Nowa Nowa to the east.

Backwash recycling system

The floc goes through a lamella where it is separated from the water. This water is then pumped back into the storages where it will be held until it is reprocessed.

The floc is then passed through a centrifuge where the particles are spun rapidly to further remove and recycle any remaining water. The floc is then collected and sent off site.

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.

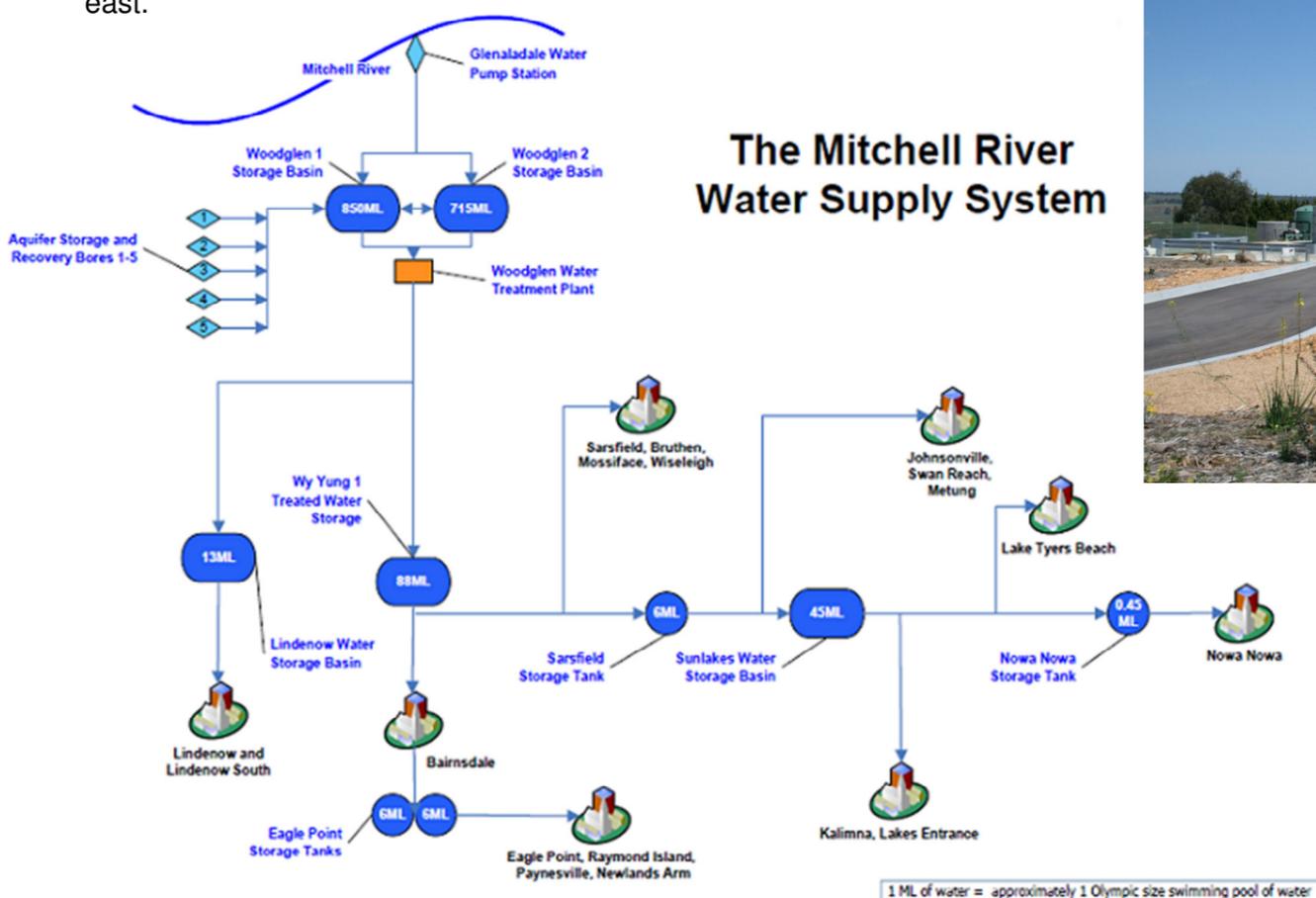
Remote monitoring by SCADA (Supervisory Control and Data Acquisition) operates around the clock and provides early warning of faults or performance issues. The focus is on maximising operational efficiency, monitoring equipment reliability and compliance, and improving customer service.



The Mitchell River at Glenaladale



The Woodglen Water Treatment Plant



For more information –
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 1800 671 841 or by emailing
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 Alternatively visit the Bairnsdale office at
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 weekdays during business hours.