

Information for consumers on the Westport/Carters Beach Water Supply

Consumers on the Westport/Carters Beach water supply have been placed on 'Essential Use' water restrictions due to the reduction in the reservoirs serving the townships. The following information is provided by Buller District Council to inform residents on this issue.

Background

Westport and Carters Beach urban areas are serviced by a water supply sourced from the south branch of Giles Creek, also the source of the Orowaiti River, near Mt Rochfort. The water is gravity-fed from the creek through a series of four earth tunnels and is then stored in three reservoirs before passing through the water treatment plant and into the reticulation.

The water supply, including the tunnels, reservoirs and open races, is the original town supply that was commissioned in 1903. The water treatment plant was constructed much later on, in 1985, and was extensively upgraded in 2014.

Tunnel collapse

Over the years there have been several partial collapses in the tunnels which have affected the delivery of water. In the past the weaker areas in the tunnels have been 'timbered' to support the tunnel walls to prevent any further collapse. However, changes to the health and safety regulations for working underground have meant that this repair method can no longer be used.

A major collapse occurred in Tunnel No. 1 in late 2016, blocking the tunnel and halting water flow. At 1.2 kilometres long, this tunnel is the longest of the four tunnels, and the collapse, at 885 metres in from the Giles Creek intake end, has resulted in the tunnel system being unusable.

With no water being able to pass through the tunnel system, water must be pumped from another source into the reservoirs to meet consumer demand.

Currently water from the Giles Creek pump station is pumped up to the largest of the three reservoirs then flows down through the water treatment plant and on to consumers.

Normal daily supply from the tunnel network to the reservoirs is 150-200 litres per second. The alternative water supply, when operating, produces around 85 litres per second, which is effectively less than half of what the tunnel system provides.

The average daily consumption of water on the Westport/Carters Beach reticulation is 985 litres per person per day. This is an average only, and this number indicates that there are a large number of high water users on our supply. Average domestic use will be significantly less.

Water restriction measures

The average demand for water in the Westport and Carters Beach urban areas is between 4800 and 5000m³ daily. In the late summer months of 2017, daily demand peaked at 6500m³, far outweighing pumping capacity and leading to a very significant decrease in the water reservoirs.

While one might expect that periods of heavy rain would help ease the situation by filling the reservoirs, this in fact creates further issues. Water cannot be pumped from the creek in flood conditions as the debris in the water prevents the pumps from operating effectively. Pumping is halted until the creek conditions return to normal. This means that consumer demand continues to deplete the reservoirs further.

Water conservation measures were introduced in late April to try to reduce the water consumption by consumers as a precaution to prevent serious shortages later on. These conservation measures were unsuccessful and water restrictions were then placed on the supply in early May.

Buller District Council is now restricting the use of water to **ESSENTIAL USE ONLY**. This means that water use is restricted to drinking water, water used for cooking and water used for sanitation purposes (ie: showering, toilets, basic hygiene, laundry) only. There is a complete ban on outdoor water use which includes car/truck washing and garden irrigation. All other high use water activities are strictly prohibited. This applies to businesses as well as households.

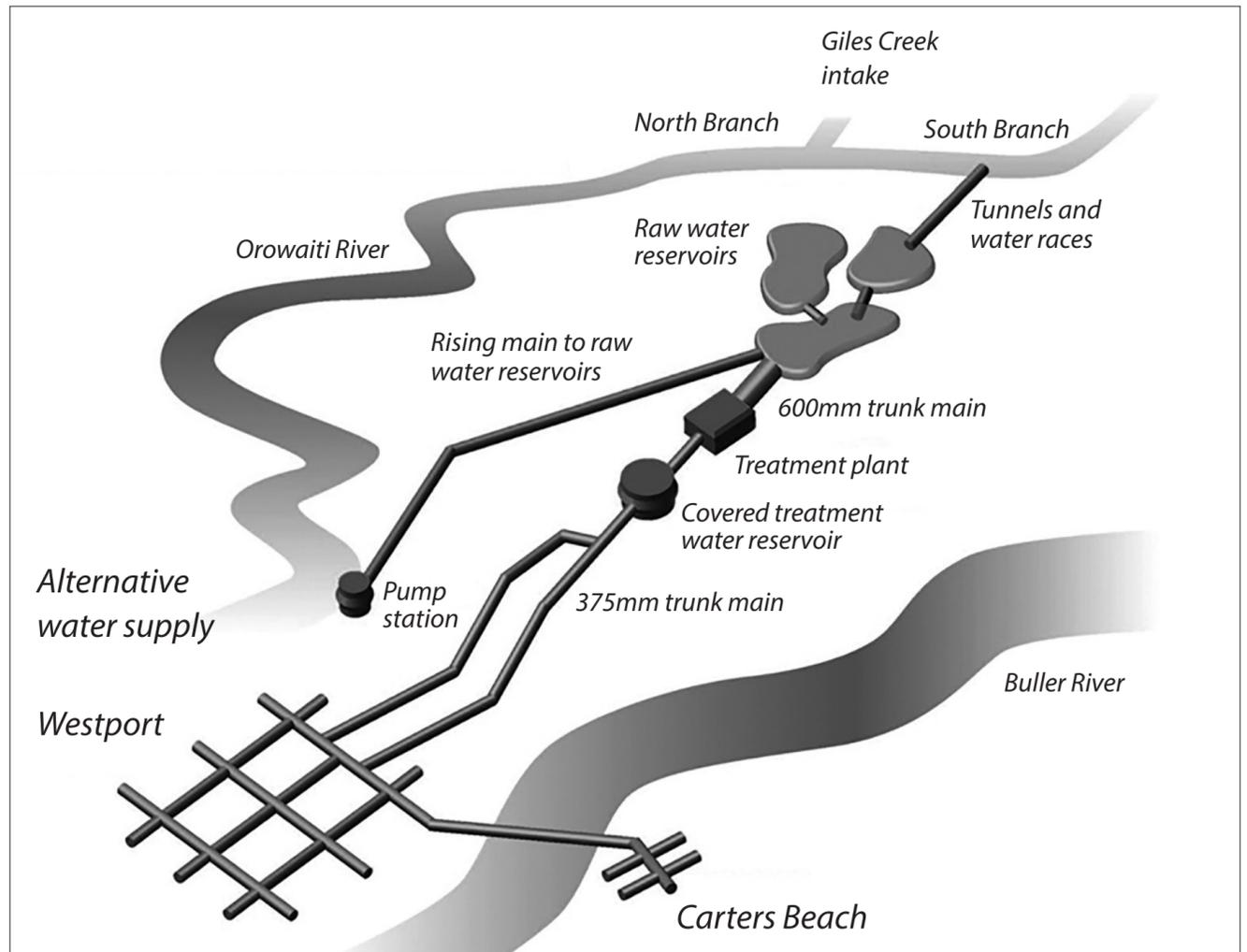
ALL CONSUMERS ON BULLER DISTRICT COUNCIL'S WESTPORT/CARTERS BEACH WATER SUPPLY ARE REMINDED THAT THEY MUST COMPLY WITH WATER RESTRICTIONS SET BY COUNCIL.

Ways to conserve water

- Take short showers instead of a bath
- Use a bowl of water for washing veges and fruit instead of running the tap continuously
- Use full loads in your dishwasher or washing machine
- Turn the tap off when brushing teeth and washing hands.

Council wishes to thank everyone for their water conservation efforts. Every little bit helps

Further tips and information about the restrictions can be found on www.bullerdc.govt.nz



This diagram gives an overview of the water supply system for Westport and Carters Beach urban areas.

Frequently asked questions

What happens if we run out of water?

If we run out of water completely there will be no water coming into homes and businesses from any taps. Large water tanks filled with potable water from tankers will be stationed at various locations around town and consumers will be able to fill containers from any of these points with water for their households.

What has Council been doing about this?

We have tunnelling experts devising a work plan for entry and repair to the tunnels. This plan must meet WorkSafe requirements. Currently we are also looking at longer term options for our supply.

What other short term plans has Council come up with?

We have just about finished setting up a short term supplementary water supply from a nearby creek to be pumped into the large town reservoir. We expect this to be operational early next week. This supply should provide another 20-40 litres per second and will be able to operate during periods of high rainfall.

We will also be testing how we can reduce pressure around town without any households or businesses losing water altogether.

How long with the water restrictions last?

Until we have our mid to long term plans for water supply underway, restrictions will remain in place to prevent water shortages in the future.

Will I get a discount on my rates if I buy a rainwater tank for my house?

Unfortunately there is no provision for a reduction in your water rates if you put in your own tank. All premises with a connection to the supply at their gate still need to pay for a share of water infrastructure. Council will still have the same ongoing operational costs for the water supply that will need to be met.

How will this affect local businesses?

We will work with high use water users individually to assist them with water reduction measures and alternative supplies where possible.

Why wasn't the initial partial collapse before the earthquake fixed?

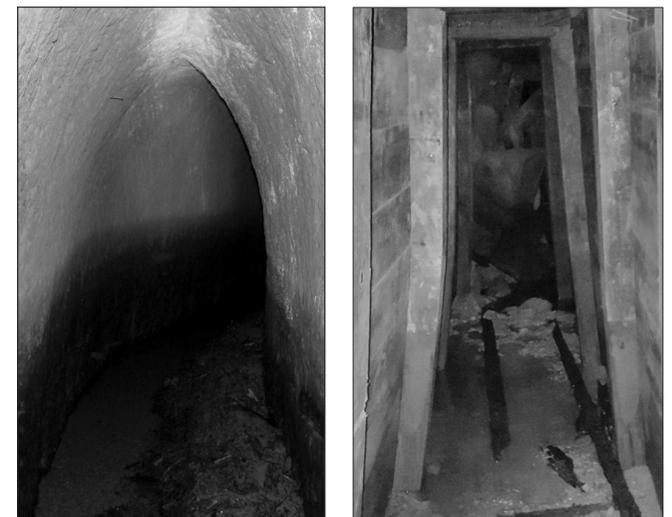
The initial partial collapse is not at the same site as the major collapse that occurred in late 2016. Changes to Health and Safety regulations around working in a tunnel have prevented entrance to the tunnel.

Why hasn't Council connected Carters Beach to the Holcim water supply from the Okari River?

This option, along with others is currently being considered. This option would require new trunk mains of approximately four kilometres long so is not a quick fix.



This photo shows the level of the large reservoir on Monday 4 September 2017. The white dotted line shows the area usually covered by water. The two smaller reservoirs can just be seen at the top.



These photos show an untimbered section of Tunnel No. 1 (left) and the major collapse in the timbered section of the tunnel (right).