

Bendigo Water Reclamation Plant

The Bendigo Water Reclamation Plant receives and treats sewage from the entire urban area of Bendigo – from Strathfieldsaye, Kangaroo Flat and Maiden Gully out to the growing areas of Epsom, Huntly and Marong.



The Bendigo Water Reclamation Plant (WRP) is a vital piece of community infrastructure, which serves around 110,000 people in our region. This includes residential, commercial and industrial customers.

Located seven kilometres north of Bendigo's central business district in Epsom, Victoria, it has been receiving and treating sewage since 1923. In May 1991 the WRP received a major upgrade, which included the addition of a Biological Nutrient Removal (BNR) process. At the time, it was one of the first purpose-built BNR treatment plants in Australia.

The facility is used to treat Bendigo's wastewater for beneficial reuse purposes for the community and environment. It is home to the Bendigo Recycled Water Factory, which produces Class A recycled water.

This water is used by award-winning parks, gardens and sports fields, as well as by primary schools, rural customers, car washing facilities, road works and commercial customers who use it for dust suppression.

The WRP continues to provide a critical service to Bendigo's rapidly growing population and is one of 16 WRPs operated by Coliban Water.

Did you know the plant supports a range of local jobs through the varied roles that are required? This can include electricians, grounds maintenance staff, arborists and water quality specialists among others.



SOURCE WATER

Wastewater from the Bendigo urban area.



CAPACITY PER DAY (LITRES)

20,000,000

The plant treats around 20 million litres of wastewater a day.



CONNECTIONS

47,000

Including residential, industrial, commercial or other customers.



POPULATION

110,000

The plant receives and treats sewage from approximately 110,000 people in the Bendigo region. Our population is forecast to reach 155,000 by 2036 and 200,000 by 2050. Numbers provided by City of Greater Bendigo and are estimates only.



RECYCLED WATER DEFINITIONS

There are three classes of water quality:

Class A recycled water is the state's highest quality of recycled water, with the widest range of uses, including uses that may involve direct human contact. These include clothes washing, closed system toilet flushing, garden watering and firefighting. It can also be used to irrigate food crops that are either consumed raw, or sold to customers uncooked or processed, as well as for all the uses for which Class B and C recycled water can be used. Class A recycled water is produced in accordance with state's guideline for water recycling, which were developed by EPA Victoria and the Department of Health.

Class B recycled water may be used to irrigate sports fields, golf courses and dairy cattle grazing land. It can also be used for industrial wash down, as well as for the uses listed for Class C recycled water, but has restrictions around human contact.

Class C recycled water may be used to irrigate cooked or processed human food crops. It can also be used for livestock grazing and fodder, as well as for some human food crops that are eaten raw, such as apples, pears, table grapes and cherries. It can be used to irrigate some public open spaces such as sporting grounds, golf courses or other areas, provided there are suitable controls on public access.

HOW THE PLANT OPERATES

Sewage flows primarily via gravity to the plant via thousands of kilometres of underground piped network. It is strategically located 'downstream' of Bendigo's urban area, and for this reason, the plant's location is fixed. It is surrounded by a variety of mixed-use zones, both developed and vacant land.

The BNR treatment process uses naturally occurring bacteria, often referred to as 'bugs', to consume the excess nutrients, nitrogen and phosphorus. After the bugs have done their job, the solids that are left are removed as sludge. After further treatment, these solids can be reused as 'biosolids'. The BNR process is more cost effective and environmentally friendly than using chemicals to remove nutrients.

The Bendigo WRP primarily produces Class B and Class C recycled water (see definitions provided), with extra facilities constructed to produce Class A water.

Treating sewage from domestic, commercial and industrial uses is a complex process and can create many different forms of odour. The treatment process is very efficient at containing odour generated in the network, including before it gets to the WRP. Once there, it is generally contained within the plant boundaries. However, Environment Protection Authority Victoria (EPA) guidelines acknowledge that even with the best technology, upset conditions can occasionally mean odours can go beyond the boundary.

REUSE AND RELEASE OF WATER

Class C recycled water is used for on-site irrigation. Class C recycled water (or better) is supplied to off-site reuse customers, such as Fosterville Gold Mine, the Bendigo Livestock Exchange and a small number of neighbouring farmers. Excess Class B water is released into Bendigo Creek in line with our EPA licence. We also take salty (brine) water from Bendigo's groundwater to prevent harmful groundwater releases to the environment.

INTO THE FUTURE

We have a continued focus on the environment and sustainability as the plant continues to operate into the future. This includes increased links with the community and the plant being used as a one-of-a-kind educational tool to aid understanding of where your wastewater goes after your flush.

We're also working on a number of carbon reduction strategies, in alignment with the Victorian Government's zero emissions policies, to reduce our environmental footprint.

CONNECT WITH US

You can contact us by telephone, email, mail or in person.

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THRIVING BIODIVERSITY

The plant includes 67 hectares of lagoons and treatment ponds which are home to a range of native flora and fauna. It provides a local habitat for thousands of birds, many of which have local and international conservation significance. It is also home to a nationally threatened species — the Growling Grass Frog.