

Gisborne Recycled Water Plant

Upgrade planning underway

MEETING
DEMAND
FROM
GROWTH

Western Water has begun detailed planning to upgrade the Gisborne Recycled Water Plant to meet demand from the growing population, improve recycled water quality and reduce energy consumption.

Since the early 1980s, the Gisborne Recycled Water Plant (RWP) has been a vital community asset treating sewage collected in the area.

Today, the plant treats sewage collected from Gisborne, New Gisborne, Macedon and Mount Macedon to produce Class B recycled water.

Our master planning found that ongoing population growth would require an upgrade to increase the plant's capacity by around 2023.

As a result, detailed investigations have been underway. These identified upgrading the plant at the existing site as the best option for managing local demand for sewage treatment through to 2035.

Next steps

Our next steps are to secure contractors and complete detailed design and construction for preparatory works on site - including removal of some sheds and a new access track to ensure staff and contractor safety during construction.

An existing lagoon will be adapted to manage stormflows as an interim storage solution until the upgrade is complete.

To ensure the upgrade delivers the best outcomes for the community and environment, we are engaging with key stakeholders

including Council, Government, EPA, waterways and environment groups, traditional owners and local residents. The detailed design for the upgrade will include environmental and cultural heritage investigations, as required.

Subject to final approvals, the main contract to design and build the plant upgrade will commence in mid-2021. We aim for the upgrade to be fully operational by 2024.

Upgrade benefits

- Increase Gisborne RWP's treatment capacity to meet demand from the growing population
- Improve the quality of recycled water produced, benefiting current users and Jacksons Creek
- Ensure the plant remains compliant with its obligations under its EPA Licence for discharging recycled water
- Substantially reduce the plant's greenhouse gas emissions
- Reduce the mixing zone for recycled water discharge in Jacksons Creek
- Provide an opportunity to improve understanding of the plant and its value for the community and environment, and
- Works will have minimal impact on local residents, and we expect no disruption to services.



In this factsheet

- Gisborne's sewage management and recycled water cycle
- Sewage management and the local environment
- About the Gisborne Recycled Water Plant upgrade
- How to find more information about the project and have your say

Gisborne's sewage management and recycled water cycle

Recycled water is a valuable local resource



What becomes of local sewage?

The Gisborne RWP treats more than 600 million litres of sewage per year, transforming it into Class B recycled water. Sewage is collected from 14,000 customers in Gisborne, New Gisborne, Macedon and Mount Macedon.

Recycled water is used locally for approved purposes or released into Jacksons Creek under strict conditions set out in the plant's licence to discharge, issued by the Environment Protection Authority (EPA) Victoria.

What is Class B recycled water?

Recycled water is the name given to sewage after it has been filtered and disinfected to make it suitable for reuse. There are several classes of recycled water. The class depends on the level of treatment and resulting quality. Class B recycled water is produced at Gisborne.

Class B recycled water can be used for irrigating recreational areas like

sports ovals. It can also be used for non-food crops or human food crops that are cooked, processed, peeled and/or grow more than one metre above the ground. These include grapes, olives and cherries.

How is recycled water used locally?

Up to a quarter of the recycled water produced at Gisborne RWP is beneficially used locally for approved purposes.

These uses include watering recreation fields and outdoor spaces in Gisborne as well as a variety of suitable crops in the Gisborne South agricultural area.

Recycled water is delivered through the Gisborne Recycled Water Scheme - a supply system made up of a network of purple pipes connecting the RWP to its customers.

How is Class B recycled water released into Jacksons Creek?

The release of recycled water into the creek has been an essential component of our sewage management process since the plant was constructed.

Any recycled water that is not used by local customers is discharged to Jacksons Creek under our licence from the EPA.

The licence sets out limits to control the level of pollutants and nutrients entering the creek. It also specifies the maximum amount of recycled water that can be discharged.

Studies have found there are some benefits to the creek from the additional water supply - particularly to improve flows.

We continue to seek more local uses for recycled water - particularly to manage the increase in volumes as the population grows.

Sewage management and the local environment

How is Class B recycled water discharged to Jacksons Creek?

Recycled water is strictly regulated at Gisborne RWP by an EPA Licence. The licence covers:

- risk management
- roles and responsibilities
- permissible end uses
- recycled water treatment and quality
- reliability of treatment and distribution
- site management
- monitoring, reporting and auditing, and
- environment improvement plans.

How much recycled water is discharged?

On average, Gisborne RWP releases 1,500 kilolitres of recycled water into Jacksons Creek per day. Under our licence, we can release up to a maximum of 2,400 kilolitres of recycled water in a day.

This maximum amount may be released during wet weather periods when there are high inflows and demand for recycled water from other users is low. The passing streamflow is typically high at this time, helping with dilution.

What is the mixing zone for Gisborne RWP?

A mixing zone is the area of the creek where water quality may be affected by the added recycled water, within defined parameters.

A key outcome of the Gisborne RWP upgrade is to further improve the quality of recycled water produced, and thus reduce its mixing zone.

What impact does recycled water have on the creek?

Recycled water contains nutrients which can impact the creek ecology. Regular monitoring and meeting the defined parameters set by EPA for the mixing zone are the key ways we manage our impact and avoid algal blooms.

Because the flow in the creek is often low, studies have found that Jacksons Creek benefits overall from the addition of recycled water.

This benefit is particularly important with the ongoing impact of climate change on creek flows.



How does Western Water help protect Jacksons Creek and the local environment?

As a water authority discharging recycled water into a waterway, we must comply with significant environmental requirements set by the EPA. Severe penalties can be applied if we do not meet these.

In addition, as a landholder, Western Water must protect and enhance the biodiversity of the 22 hectares of land we own at Gisborne RWP.

Western Water undertakes works with Melbourne Water to remove exotic plants like Willows and replant the creek banks and nearby land. Around 1500 native shrubs and trees have been planted to date.

We also support studies of aquatic life in the creek - like fish and macroinvertebrate counts - and we are continuing work to better understand the benefits of recycled water for environmental flows in Jacksons Creek.

Focused on environmental compliance and care



Caring for Jacksons Creek

Are you interested in environmental works along Jacksons Creek?

Visit the Jacksons Creek EcoNetwork for more information (www.jcen.org.au)



Why is Gisborne RWP being upgraded?

By far the greatest challenge for Gisborne RWP is meeting the current and future demand for services from the growing population.

We are currently treating sewage for more than 14,000 customers and the plant is nearing its capacity.

By 2035, we expect the local population to grow by another 46%.

By upgrading the plant now and catering for growth, we will reduce risks to the environment or breaches of our compliance requirements.

Strategic options review

Several options were considered for the best long-term approach for managing the local area's sewage and the resulting recycled water.

Detailed analysis found the most sustainable solution for the foreseeable future was upgrading the plant at the current site.

What will be involved in the upgrade?

Over the coming year, Western Water will begin early works and engage contractors to develop the detailed design plan for the upgrade.

We will also work closely with stakeholders like the EPA, Council, environment and waterways groups, and the community to ensure we deliver the best outcomes for the community, environment and the region.

Based on approval of the final tender for the works, the upgrade should commence in mid-2021.

We expect the upgrade to include:

- introducing state of the art membrane bioreactor technology to replace our energy-intensive oxidisation ditches and UV disinfection process. This will dramatically reduce energy use and improve the quality of recycled water produced.
- replacing the current inlet works and odour treatment, and
- repurposing or decommissioning some assets.

More information will be shared with stakeholders and the community when the upgrade contract is finalised.

Will the upgrade affect local residents?

Because the works will be entirely within the boundary of the existing plant, we do not expect any significant impact on local residents.

However, the plant's location does mean upgrade works may be visible to the community and there is likely to be increased truck traffic, some noise and possibly dust during construction.

Any noise generated during construction or as part of ongoing plant operations will be within allowable noise standards.

Project updates will include advice about when works will occur and any expected impacts for that stage. See right about how to subscribe.

We do not expect any disruption to sewage or recycled water services during the upgrade, but we will communicate directly with affected customers if services are impacted.

How to be involved or find out more

- Subscribe to receive updates on the Gisborne RWP Upgrade. Send your email request to: feedback@westernwater.com.au
- Visit WesternWater.com.au and search for "Gisborne Recycled Water Plant Upgrade"
- Send any queries by email to: feedback@westernwater.com.au

If you would like to:

- Book a meeting with the Project Manager, and/or
- Discuss how to be involved if you cannot access information online

Please contact engagement officer Nicole Cooper on 9218 5455 during business hours.