

Western Irrigation Network

Detailed planning phase

Western Water has entered into a detailed planning phase for the Western Irrigation Network (WIN), following positive response to the feasibility study from stakeholders.

Feasibility study

Western Water has been working with stakeholders and potential customers to understand possible demand for recycled water for agricultural purposes in the west.

The feasibility study considered supplying Class C recycled water to agricultural land to the west of Melbourne including Parwan, Balliang and Toolern Vale.

It contrasted development of an irrigation network with proceeding under business as usual operations, and/or connecting to other water corporations to dispose of recycled water.

Details about the options considered in the feasibility study can be found overleaf, including the option recommended to progress to detailed planning phase.

Design of WIN will be flexible to support the future addition of customers beyond those included in the initial Parwan-Balliang region.

WIN key dates

If the detailed planning phase confirms WIN is the best solution for managing recycled water supplies in the region, targets for key WIN milestones are:

- March 2019: detailed plan approved and customer commitments secured
- Mid 2020: Melton RWP 1.3GL recycled water storage completed
- December 2020: Melton RWP - Bacchus Marsh RWP interconnector completed
- June 2021 to June 2022 – WIN constructed and fully operational

WIN detailed planning phase under way

To determine the best way to implement the new irrigation network, this phase will undertake detailed planning and development including:

- creating operational models
- developing commercial arrangements
- conducting site assessments
- generating the engineering design
- obtaining detailed input from experts in agriculture and economics
- undertaking further consultation with potential customers and stakeholders
- securing commitments from recycled water customers, and
- developing the project procurement plan.



KEY FACTS

Western Water's Board has endorsed commencement of a \$1.5 million detailed planning phase for WIN, to be undertaken in 2018.

The initial component of the detailed planning phase should be completed by December 2018 with approval and commitments secured in March 2019.

Some capital works are already under way that will complement the WIN project including:

- an interconnector pipeline between Melton and Bacchus Marsh recycled water plants, and
- a new recycled water storage at Melton.

Options considered in feasibility study

The feasibility study considered Western Water's business as usual approach to managing recycled water supplies plus three options to address the recycled water compliance challenges emerging with population growth:

- **Option A** considered two separate recycled water irrigation schemes – Melton-Bacchus Marsh recycled water to Parwan-Balliang private land holders plus Sunbury recycled water to land purchased near Toolern Vale, with additional land purchased in Exford for excess recycled water volumes from Melton in wet years.
- **Option B** considered a single, more extensive irrigation scheme in Parwan-Balliang supplied with water from the Sunbury, Melton and Bacchus Marsh recycled water plants to privately owned dryland farms. Existing Western Water lands would be dried off for use for excess recycled water in wet years.
- **Option C** considered a single scheme concept (as described in Option B) but with an additional pipeline constructed to link supplies to the Western Treatment Plant to manage excess volumes. This would leave existing Western Water lands available for renewal of leases instead of drying off.

Understanding Class C recycled water

Recycled water is wastewater that has been collected and treated so that it can be used again for a variety of non-drinking purposes.

Today, recycled water is a valuable resource which can support agricultural production, particularly in low rainfall areas.

Recycled water is treated according to guidelines set by the Environment Protection Authority Victoria and the Department of Health and Human Services.

The feasibility study supports the supply of Class C recycled water initially to the Parwan-Balliang agricultural area.

What is Class C recycled water?

Class C recycled water is produced at several recycled water plants including Melton, Sunbury and Bacchus Marsh.

It is suitable for:

- human food crops that grow at least one metre above the ground (e.g. apples, pears)
- human food crops that are cooked or processed before sale (e.g. wheat, wine grapes, olives)
- pasture and fodder crops for certain grazing animals including sheep, goats and horses, and
- woodlots, flowers and industrial turf.

Feasibility study recommendations

Significant population growth in the region presents serious challenges for Western Water to continue its business as usual approach to managing recycled water supplies.

Option B appears to offer the most cost-effective solution for long term recycled water management. It will also deliver wider benefits including more efficient use of quality agricultural soils, increased food and fibre production, and jobs.

The Parwan-Balliang area provides opportunities compatible with the time frame for implementing the initial stages of WIN.

Western Water will continue to explore the benefits of connecting to the Western Treatment Plant for managing recycled water supplies. We will also remain open to considering other agricultural areas for recycled water demand.



Potential customers

If you are a landowner or grower in the Parwan-Balliang region, and you are interested in finding out more about the project, please contact WIN@westernwater.com.au