

Peel Regional Water Supply Initiative

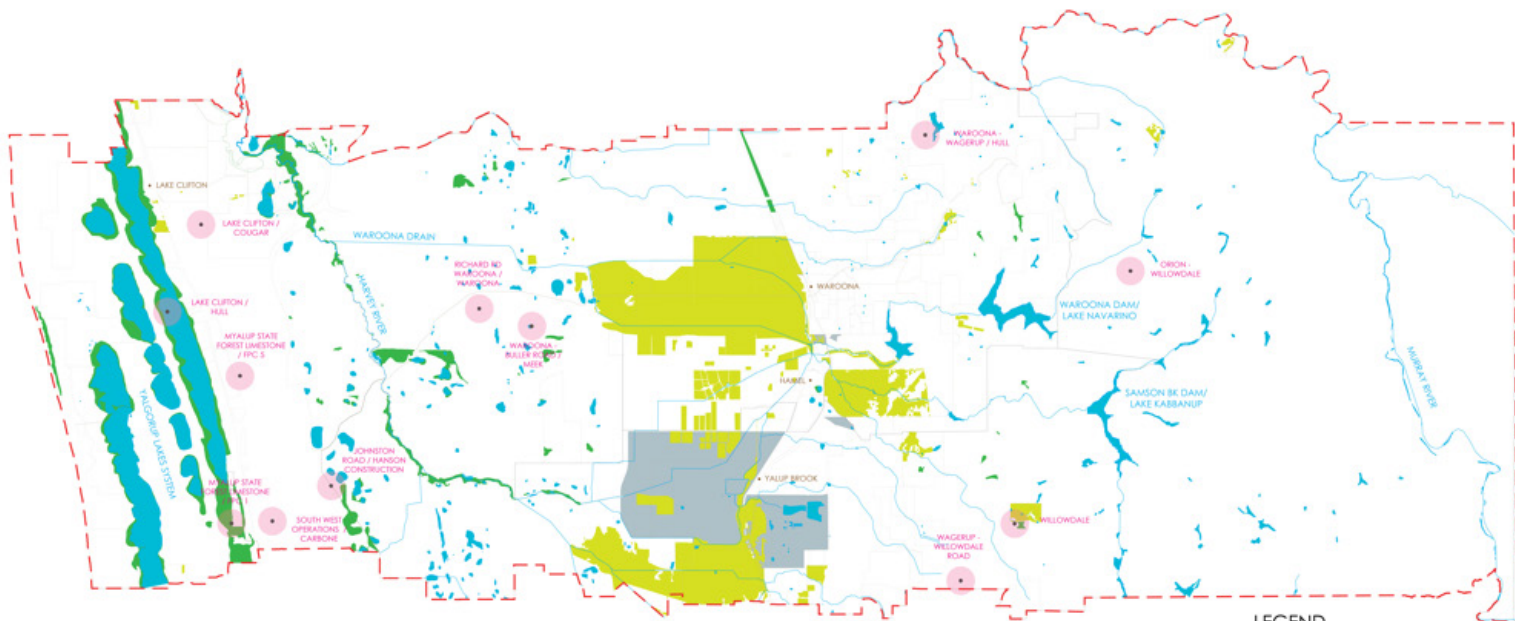
Shire of Waroona snapshot

Population of around 4,200 residents, located in nearly 1,750 households. This is predicted to increase to just over 10,000 people by 2051.

The key land uses in the Shire of Waroona are a combination of agriculture, mining and rural residential. It includes the Waroona Irrigation District and the Wagerup Refinery.

Important environments include the internationally recognised Yalgorup Lake System in particular Lake Clifton and Lake Preston, the Harvey River and many conservation category wetlands.

The key settlements are serviced by the Water Corporation’s Integrated Water Supply Scheme (IWSS). The Shire of Waroona has access to reticulated sewerage within parts of the Waroona townsite only. Treated wastewater (TWW) from the Waroona wastewater treatment plant is discharged via a swale into the Drakesbrook Drain.

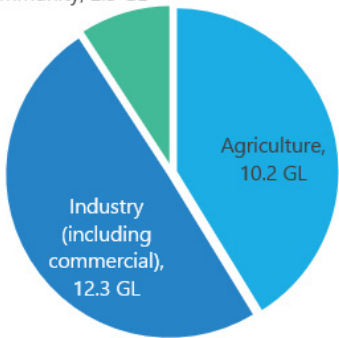


LEGEND

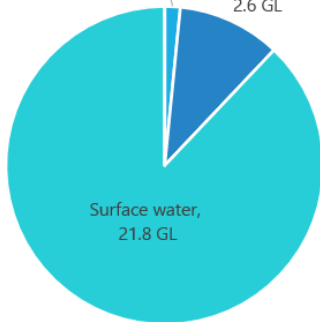
- EXTENT OF WORKS
- WATERWAYS
- INDUSTRIAL LAND
- IRRIGATED AGRICULTURE AND PLANTATIONS
- SIGNIFICANT ENVIRONMENTAL ASSETS (WATER DEPENDENT)
- OPERATING MINES
- TOWNSITES



Community, 2.3 GL



IWSS, 0.4 GL Groundwater, 2.6 GL



Current water needs are around 24.9GL

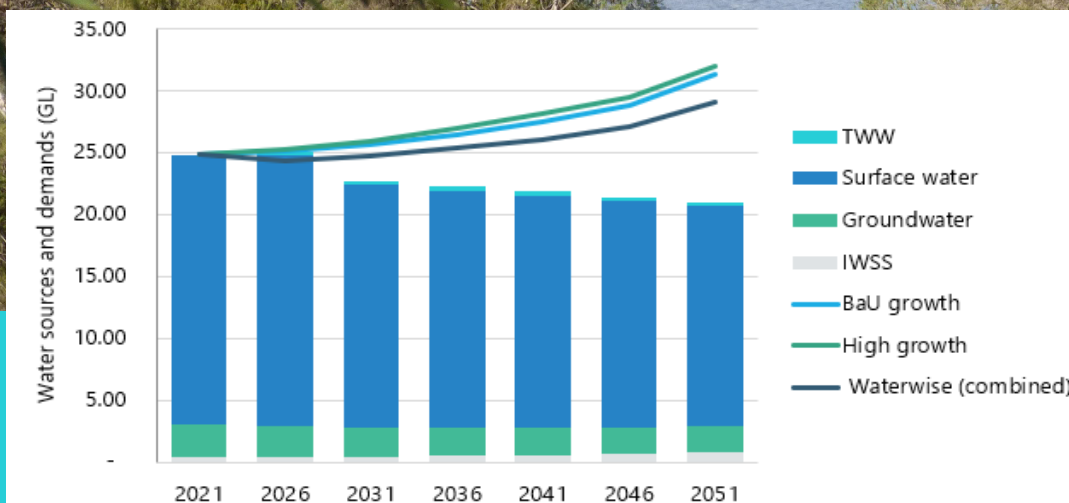
The majority of water use by the community is via unallocated surface water or groundwater for peri urban uses as only 0.4GL is provided by the Water Corporation’s IWSS. The majority of water needs in the Shire are for agriculture and industry. The cost of supplying water from its current sources is estimated to be \$508 million in present day dollars¹.

¹ High level economic analysis undertaken by Marsden Jacob Associates, 2023.

Future water sources and demands

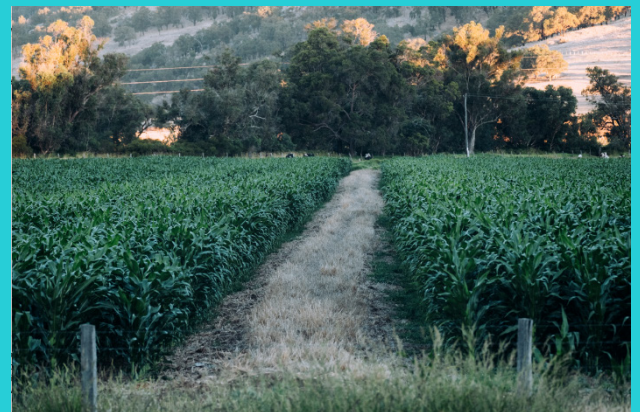
Consideration of predicted growth in agricultural and industrial activity in the Shire of Waroona (see full report for description of scenarios), together with available sources of water suggests that there is likely to be insufficient water to support this growth by 2031. This is largely a result of declining access to surface and groundwater resources due to climate change.

While there are short term measures available to top up the Shire's supply to match forecasted demand that include increases in local efficiencies, groundwater trades and transfers, treated wastewater (TWW) and the IWSS, it is likely that a strategic solution would provide greater certainty to plan for the future and maximise economic and community benefits.



If this shortfall is addressed, the accumulative value of production in the Shire of Waroona is estimated to increase between \$5,020 million (high growth scenario) and \$3,229 million (Waterwise scenario) in present day dollars. Of this gain in production, \$167 to \$108 million can be attributed to irrigated agricultural activities whilst between \$4,853 and \$3,121 million can be attributed to industrial activities (present day dollars). This would also result in between 12,376 and 8,161 jobs across agriculture and industrial sectors (assuming BaU demand forecasts)². This value would be lost if the water demand shortfall is not met.

In the event of a shortage, water be in limited supply and impact the community's parks and gardens. If this were to occur, the landscape will become drier and less green. The community benefit of maintaining green (irrigated) parks in the Shire of Waroona is estimated (from willingness to pay studies on the amount of the water shortfall) at between \$17 and \$29 million in present day dollars over the period of 2024 to 2051.



Please refer to the full report, available on the Peel Alliance website: www.peelalliance.org.au for additional information, or contact Peel Alliance Executive Director, Anika Serer at anika@peelalliance.org.au.

² High level economic analysis undertaken by Marsden Jacob Associates, 2023.
Images: Visit Mandurah and Russell Ord Photography