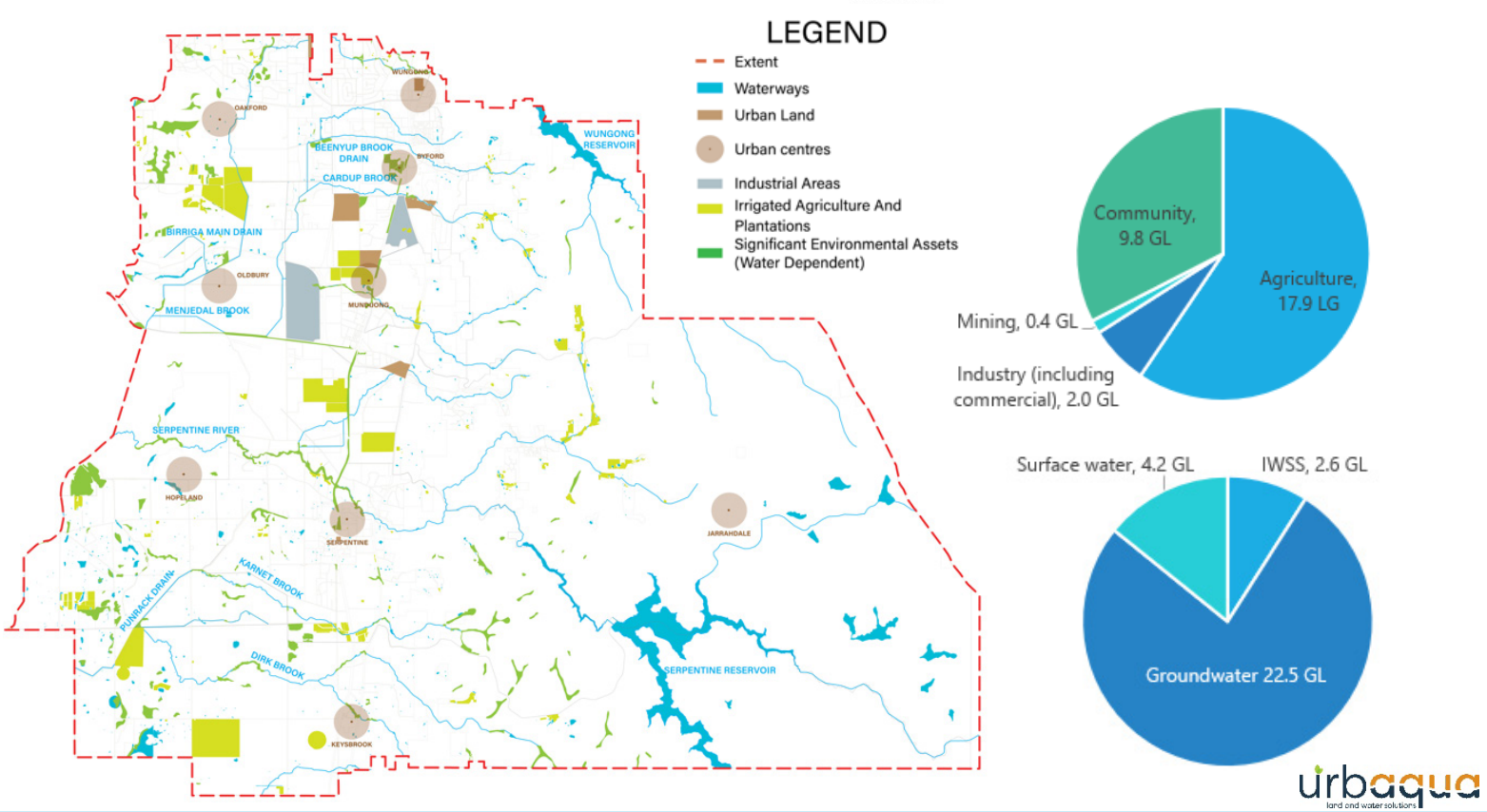
Peel Regional Water Supply Initiative
Shire of Serpentine Jarrahdale snapshot

The fastest growing local government in WA, with a population of around 37,000 residents (2023), located in 13,000 households. At 5% annual growth this is predicted to increase to over 115,000 people by 2051.

The local economy is dominated by population driven demand for urban and community services as well as agriculture and primary production.

The urban centres are serviced by the Water Corporation's Integrated Water Supply Scheme (IWSS) and reticulated sewerage but this does not extend to rural and semi-rural areas, and there are no wastewater treatment plants within the Shire.

Important environments include the Serpentine River which flows into the internationally recognised Peel-Harvey Estuary, as well as Cardup Brook and other waterways and groundwater sensitive wetlands.



Current water needs are approximately 30.1GL

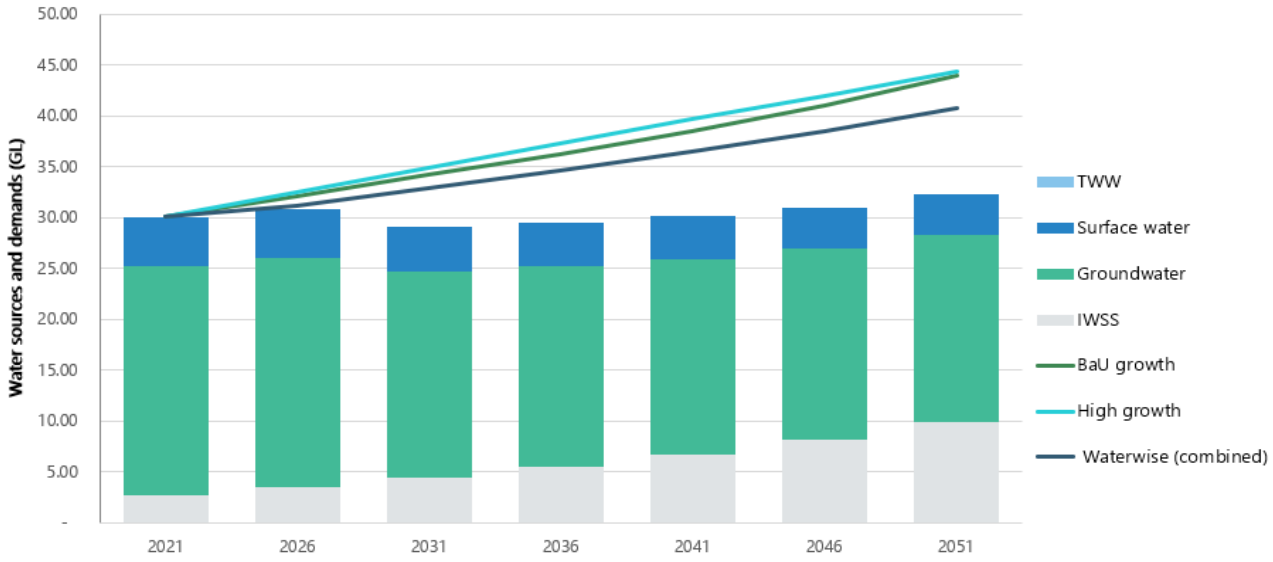
Most water is used for agricultural activities (14GL of groundwater), followed by stock and domestic purposes (1.8 GL allocated and 1.6 GL unallocated), farm dams (2.8GL unallocated surface water), public open space (2.7GL allocated groundwater), residential water use (2.4GL IWSS).

The cost of supplying water from its current sources is estimated to be $825 million in present day dollars[1].

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

Future water sources and demands

Consideration of the available water sources within the Shire of Serpentine Jarrahdale suggests that insufficient water will be available to support the projected growth (see full report for agreed scenarios) in urban development, industry and agriculture by 2026. 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 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 the projected shortfall is addressed, the accumulative value of production in the Shire of Serpentine Jarrahdale is estimated to increase between $723 million (high growth scenario) and $443 million (Waterwise scenario) in present day dollars. Of this gain in production, $554 to $340 million can be attributed to irrigated agricultural activities whilst between $169 and $103 million can be attributed to industrial activities (present day dollars). This would also result in between 6,435 and 4,028 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 may 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 Serpentine Jarrahdale is estimated (from willingness to pay studies on the amount of the water shortfall) at between $57 and $95 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.