Peel Regional Water Supply Initiative
Shire of Boddington snapshot

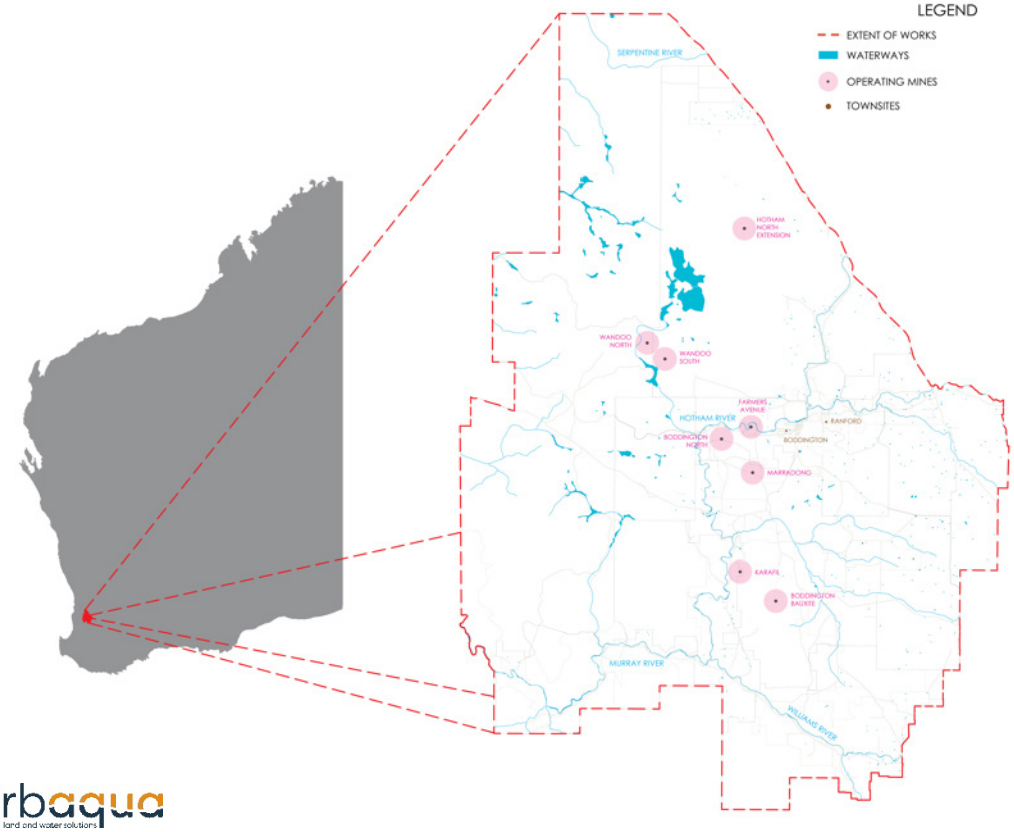
Population of over 1,500 residents, located in 660 households. This is predicted to increase to just over 2,000 people by 2051.

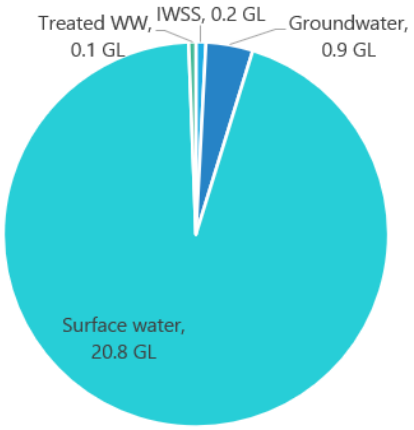
Almost all of the Shire of Boddington is located within the Murray River's catchment, with smaller areas in the catchments of the South Dandalup and Serpentine rivers.

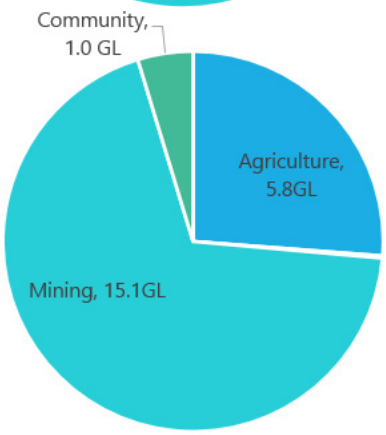
Key centres are Boddington and Ranford and the local economy is strongly supported by mining and construction, with some manufacturing and agricultural activities.

The key settlements are serviced by the Water Corporation's Great Southern Towns Water Supply Scheme (GSTWSS) from the Harris River Dam.

Boddington wastewater treatment plant can support a population of approximately 2500 people. 100 per cent of the wastewater treated at the Boddington wastewater treatment plant is recycled and used at the Boddington gold mine.







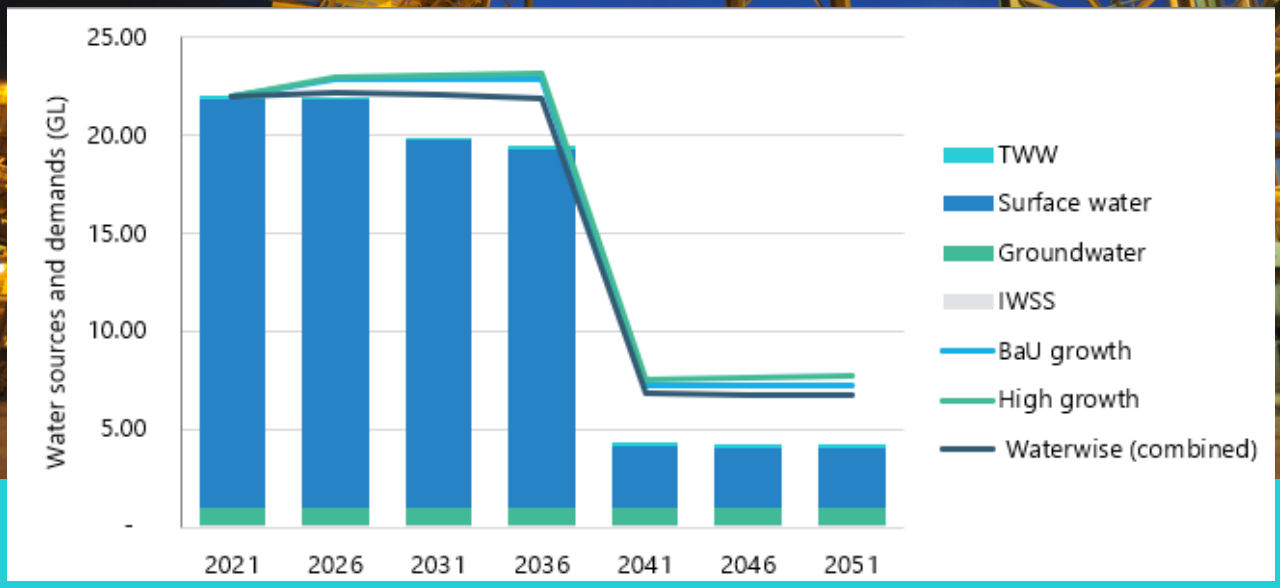
Current water needs are approximately 22 GL

The groundwater management areas are not proclaimed and therefore no licence is required to take groundwater. Due to the fractured rock characteristics of the aquifers on the Darling Plateau, access to groundwater is generally limited and where it does occur, its quality varies considerably. Bore yields are generally low, reflecting the lack of good aquifers, and are generally only suitable for stock watering. The cost of supplying water from its current sources is estimated to be $312 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 predicted growth scenarios for urban development, industry and agriculture and likely available water sources suggests that insufficient water will be available within the Shire of Boddington by 2026 (See full report for description of scenarios). This is largely due to declining availability of surface water resources as a result of climate change. The drop in water demands is associated with the scheduled closure of the Boddington Gold Mine.



While there are short term measures available to top up the Shire's supply to match forecasted demand that include increases in local efficiencies, unproclaimed groundwater resources, treated wastewater (TWW) and the GSTWSS, 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 Boddington is estimated to increase between $3,380 million (high growth scenario) and $2,030 million (Waterwise scenario) in present day dollars. Of this gain in production, $52 to $31 million can be attributed to irrigated agricultural activities whilst between $3,327 and $1,999 million can be attributed to industrial activities (present day dollars). This would also result in between 7,069 and 4,378 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 Boddington is estimated (from willingness to pay studies on the amount of the water shortfall) at between $2 and $3 million in present day dollars over the period of 2024 to 2051.

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

Images: Visit Mandurah and Russell Ord Photography

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.