

# BUSINESS OPPORTUNITY

## MOUNT BARKER IRRIGATION SCHEME

2018



Government of  
South Australia



SA Water



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DISTRICT COUNCIL

# Overall Project

- Mount Barker District Council collaborating with SA Water to establish an irrigation precinct in the eastern Mount Lofty Ranges stretching from Mount Barker to Murray Bridge.
- The precinct will distribute recycled water from Council's wastewater treatment plant and untreated River Murray water from SA Water's Murray Bridge-Onkaparinga Pipeline to contracted customers.
- Currently Mount Barker district produces ~ 1.4 GL/yr. of recycled water.
- Supply of recycled water expected to increase to 3.6 GL/yr. by 2045.



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# Project Proposal

- Create a 'green industrial scheme' where the above flows are supplemented by the Murray Bridge-Onkaparinga Pipeline supply.
- As recycled volumes increase, the Murray Bridge-Onkaparinga Pipeline flows will be reduced. The expected combined volume of the scheme is 5 GL/yr.



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# Consultancy Purpose

- Hudson Howells, an Adelaide based strategic management consulting firm, has been engaged by SA Water and Mount Barker District Council to investigate market interest and demand for recycled waste water use.



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# Consultancy Process & Next Steps

- Re-engage with prospective irrigation scheme customers.
- Identify and engage with new prospects.
- Gather and collate key data.
- Provide to Council and SA Water.
- Engineering solution designed and costs.
- Economic impact assessment undertaken.
- Cost benefit analysis undertaken.
- Council and SA Water to evaluate and determine if business case stacks up.



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# Why the Scheme Should Work

- Investment in this water infrastructure scheme supports:
  1. sustainability through wastewater reuse;
  2. investment in the booming agribusiness sector which in turn generates regional employment and export income.
- The scheme will provide consistent long-term supply at a transparent level of water quality.



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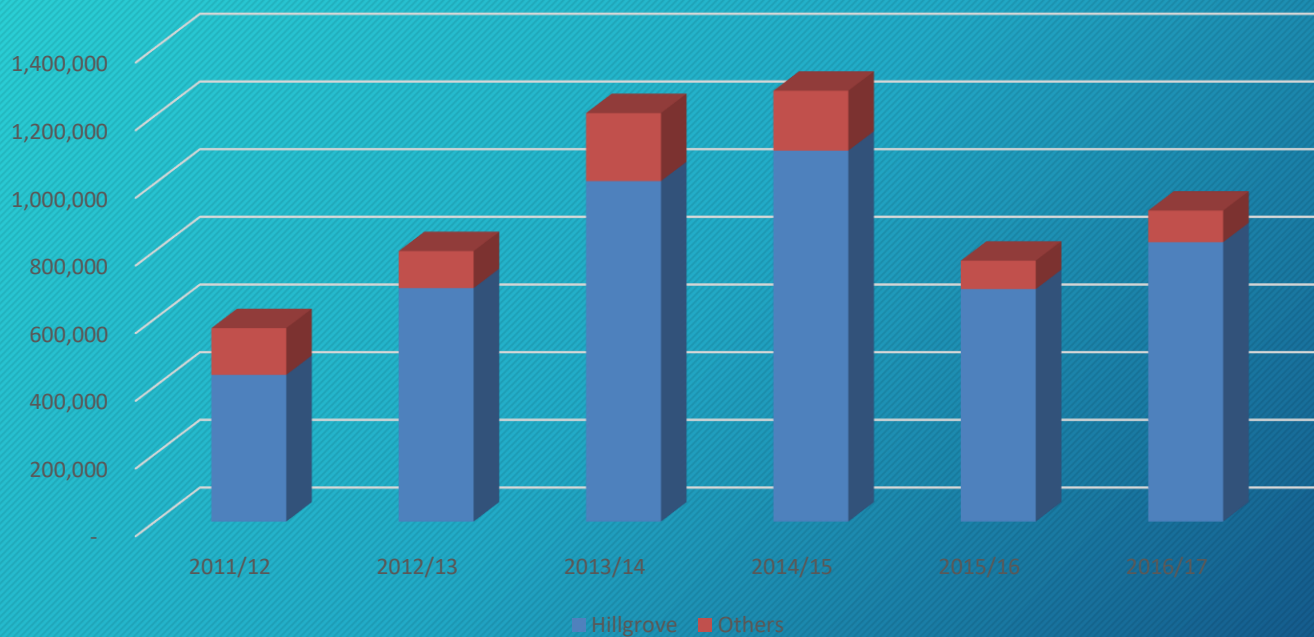
# Mount Barker's Recycled Water

- Class A ( Ultra filtered and disinfected to log 5 Virus Reduction).
- Salinity < 900 ppm.
- \$2.45 /kl but discounted heavily to all external customers.
- 80%- 90% (~ 800 ML/yr) of recycled water sales is to a single customer - Hillgrove Mine.



# Historical Usage Patterns

Annual recycled water usage (KL)



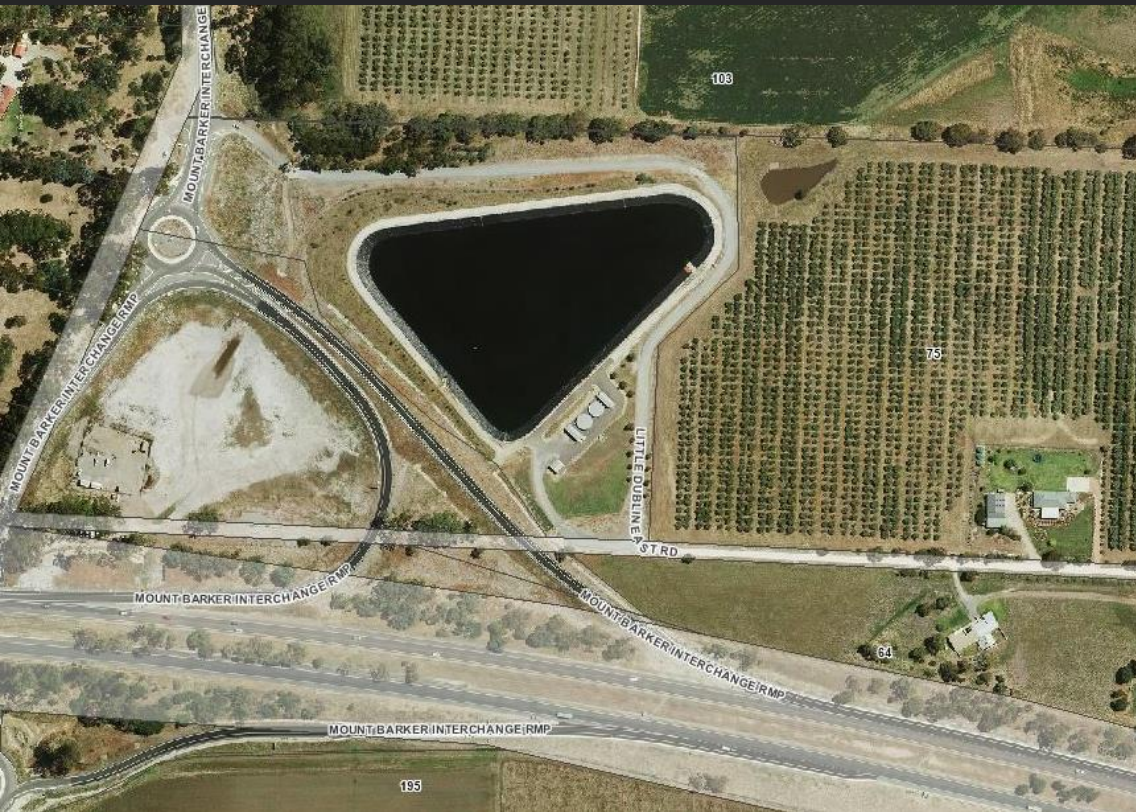
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# Existing 120 ML Recycled Water Reservoir

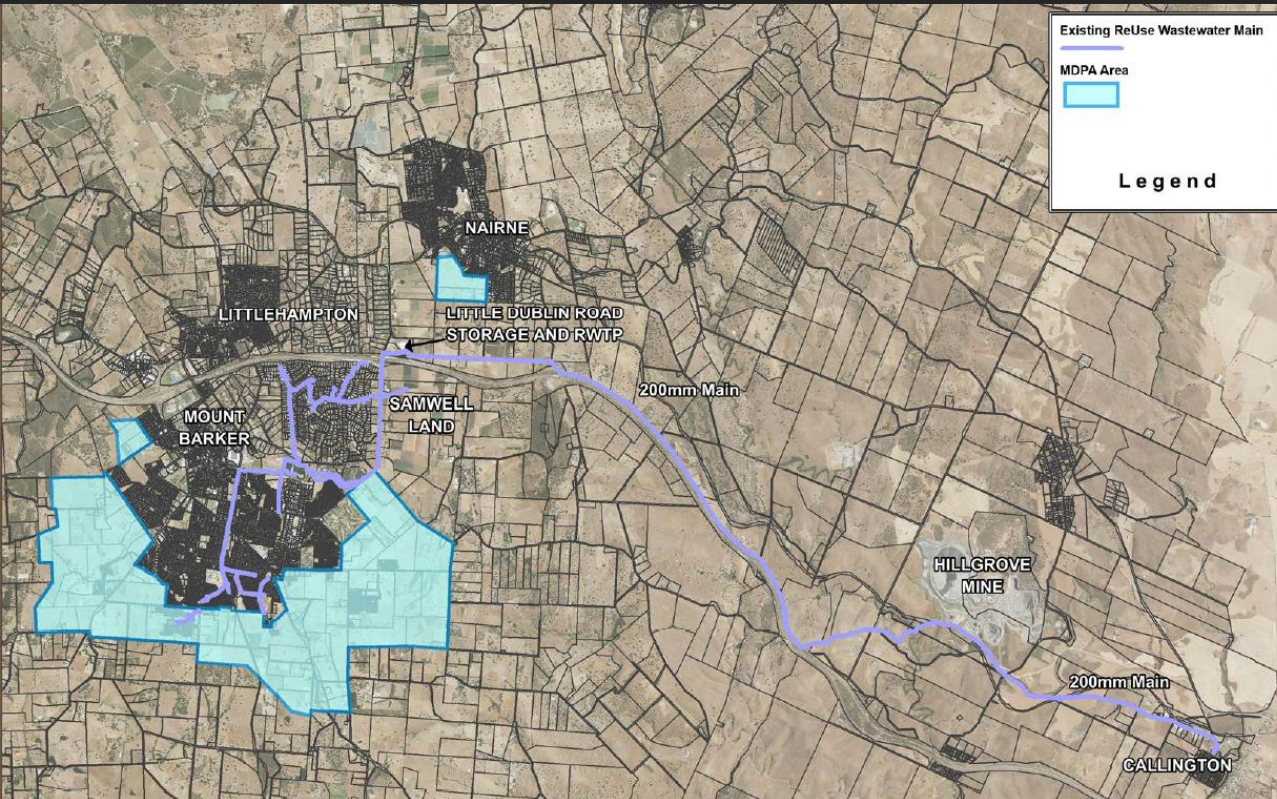


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# Existing Recycled Water System

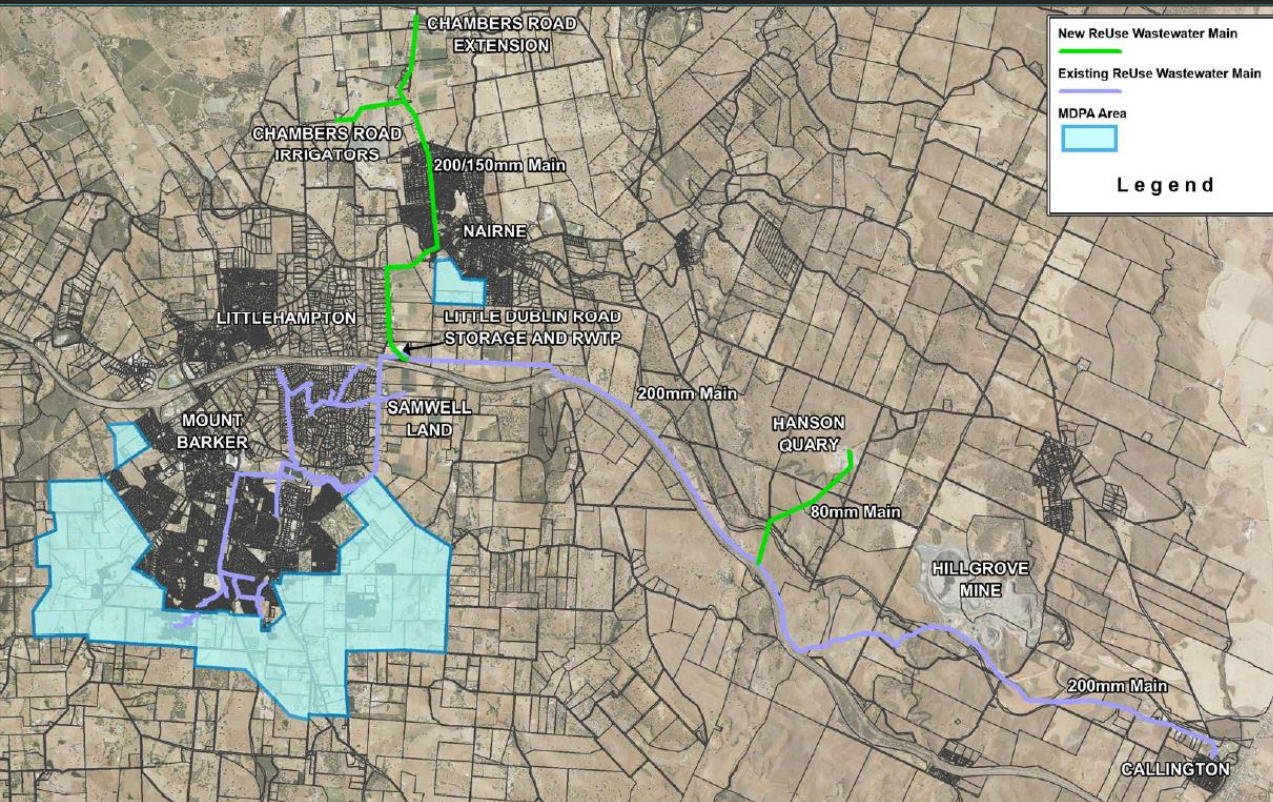


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# Location of Proposed New Recycled Water Pipelines

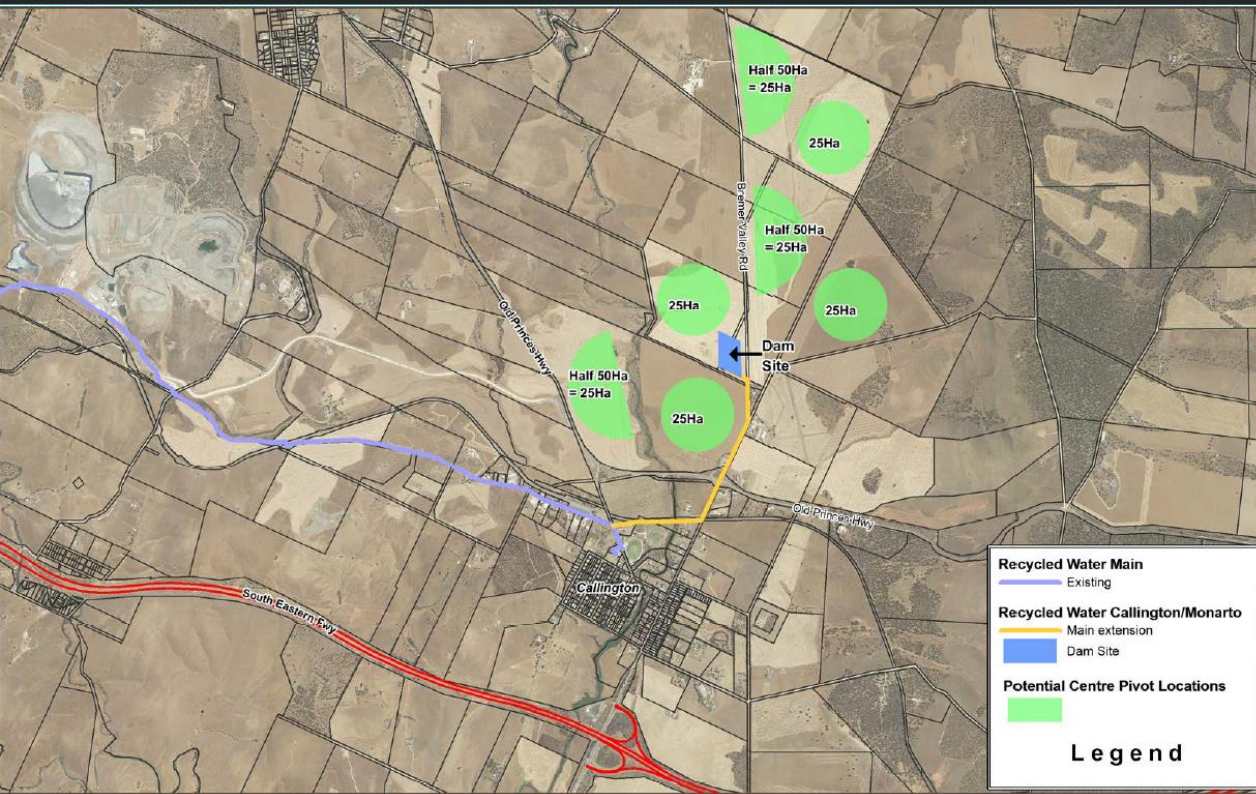


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# Potential Extension to Callington Pipeline



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# Murray Bridge to Onkaparinga Pipeline

- Transfers raw (River Murray) water from Murray Bridge to the Onkaparinga River - it then flows through the river system to the Mount Bold Reservoir.
- Available for connection now.
- Availability balances recycled wastewater load from Mount Barker, and provides an opportunity for blending to achieve salinity and other water quality outcomes.



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# Murray Bridge Onkaparinga Pipeline

- Two options:
  1. SA Water to hold the licence and on-sell the water (greater security).
  2. Businesses could hold their own water licences and pay SA Water to transport it (lower price).
- Total transfer capacity 510 ML/day (186 GL/year).
- Available transfer capacity by negotiation - up to 40 GL/year might be a good starting number, and should be enough for several major developments.
- Specific requirements (volume, timing of flows, offtake points) would need to be confirmed by our asset management function during business case development.

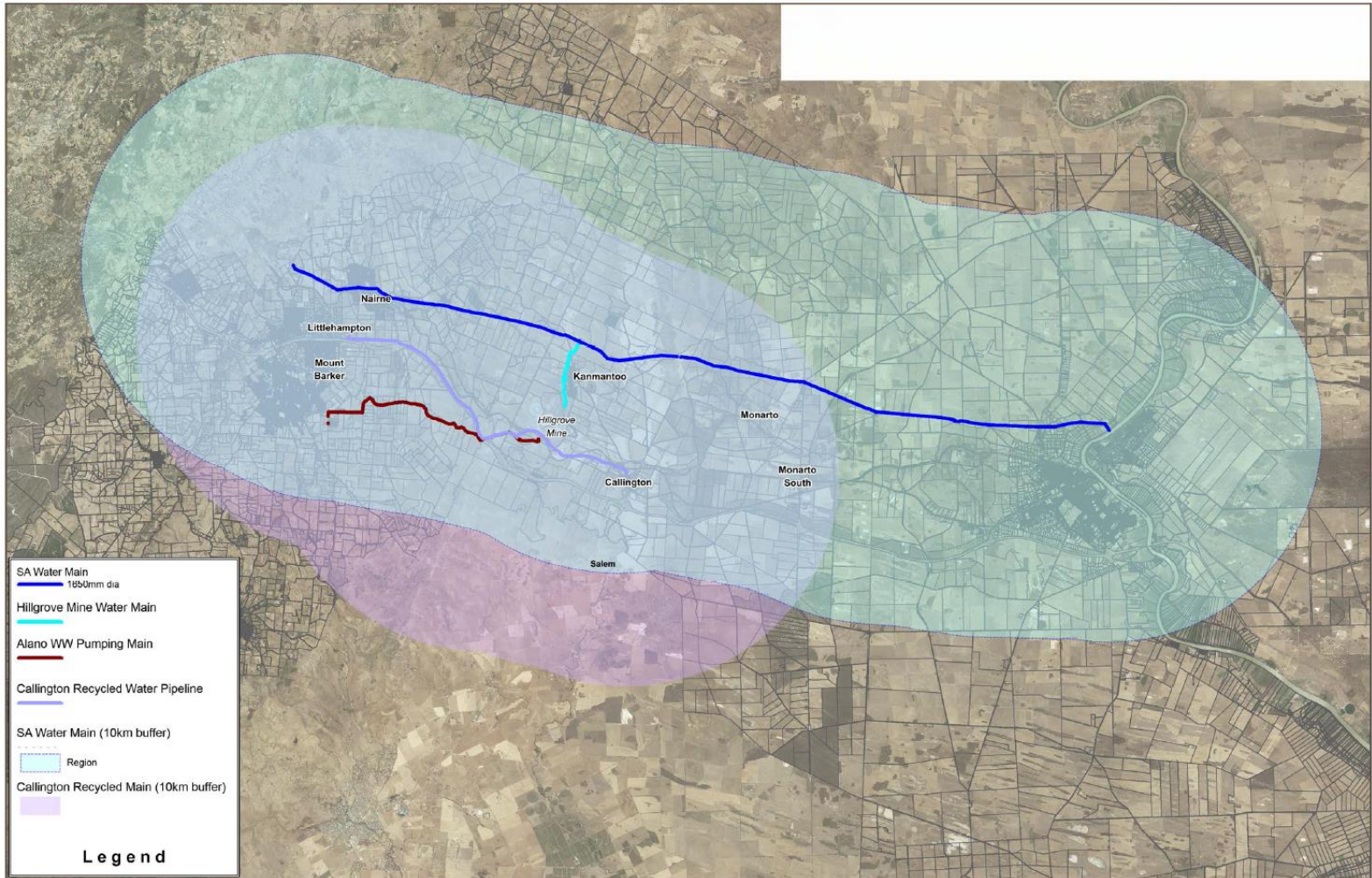


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# Mount Barker - Monarto Overview



**SA Water Main**  
 1850mm dia

**Hillgrove Mine Water Main**

**Aleno WW Pumping Main**

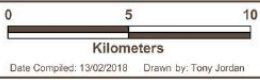
**Callington Recycled Water Pipeline**

**SA Water Main (10km buffer)**

**Region**

**Callington Recycled Main (10km buffer)**

**Legend**



Scale:  
 1:100,000 @ A3

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**Mount Barker - Monarto Overview**

