Water for the Future Strategy

Namoi Unlimited

Namoi Joint Organisation of Councils

- Gunnedah Shire Council
- Gwydir Shire Council
- Liverpool Plains Shire Council
- Tamworth Regional Council
- Walcha Council

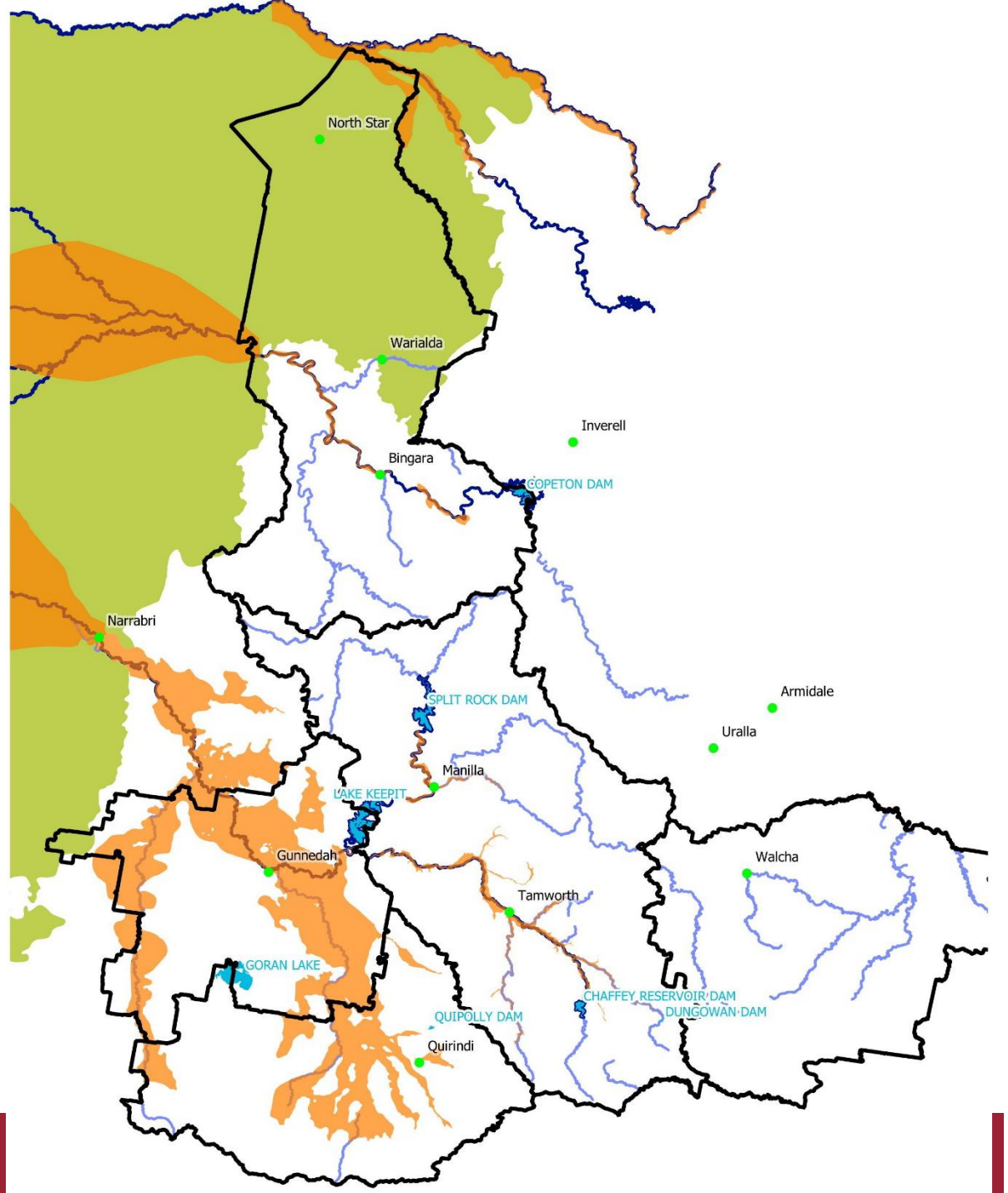
Purpose of the Water for the Future Strategy

Water for the Future 'Statements of Priority' outlined in the Strategic Regional Plan 2018 – 2021:

1. Audit, analyse, identify and prioritise the key constraints, opportunities and innovations to secure the supply of water for communities, businesses and Local Government
2. Audit, analyse, identify and prioritise opportunities and partnerships for agriculture, agricultural products, commodities, supply and value chains, as well as services
3. Identify the potential impacts of change on agriculture
4. Identify and facilitate opportunities to address change, by diversifying, opening and establishing, and new markets for producers.

Water Sources

- Headwaters of Murray Darling (NSW)
- Net Exporter of Water
- Biggest Source is Rain



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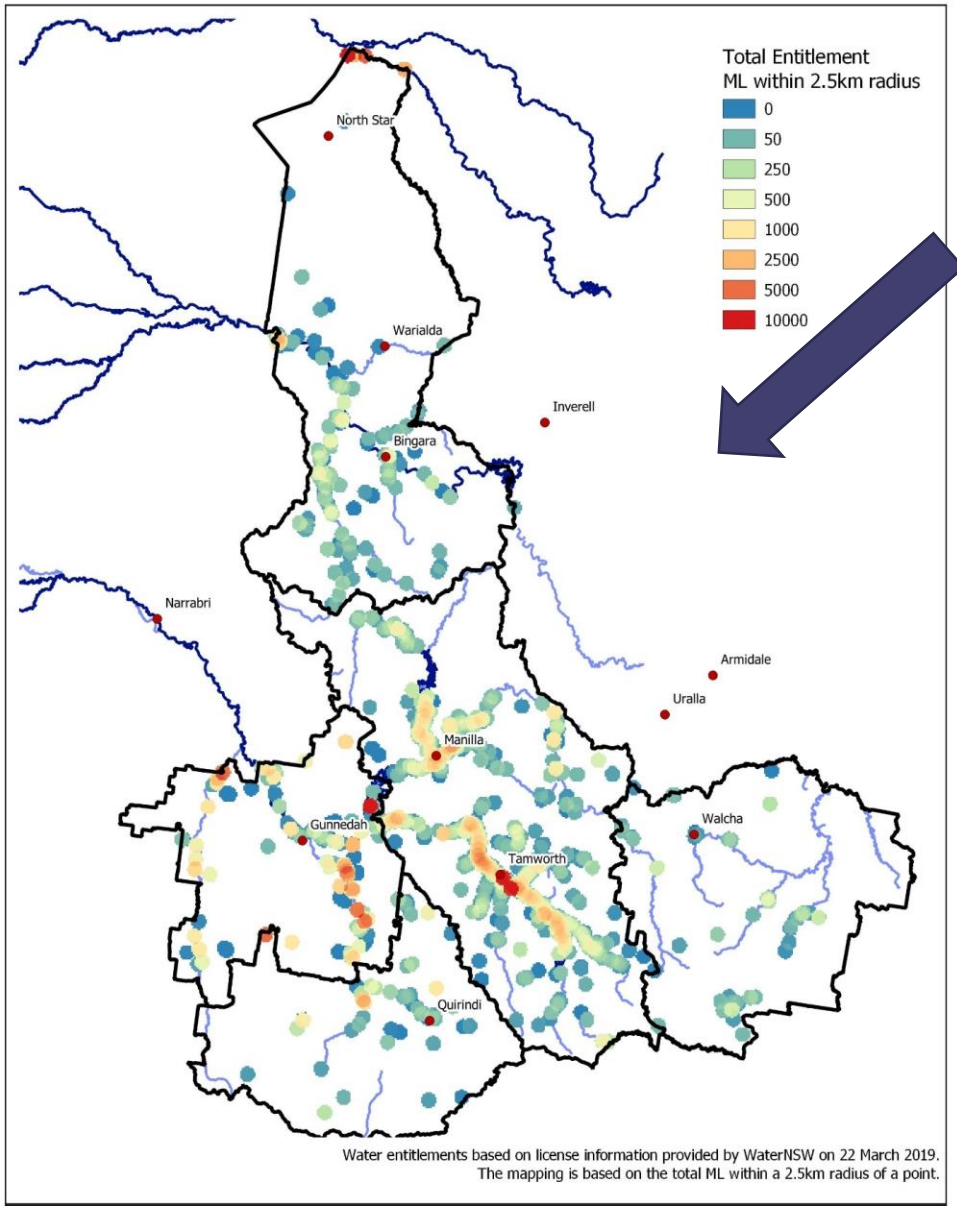
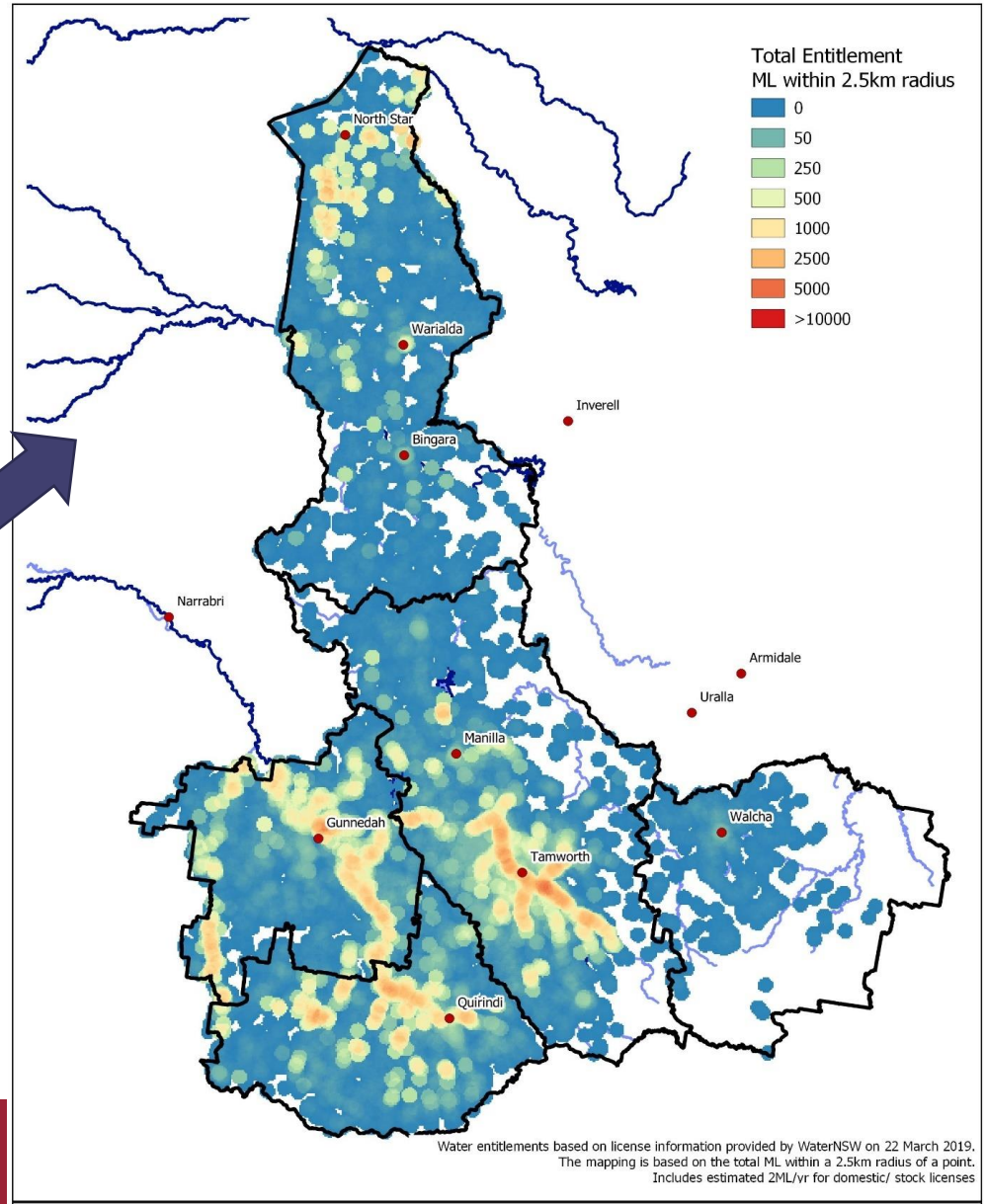
Water Sources – how are they accessed?



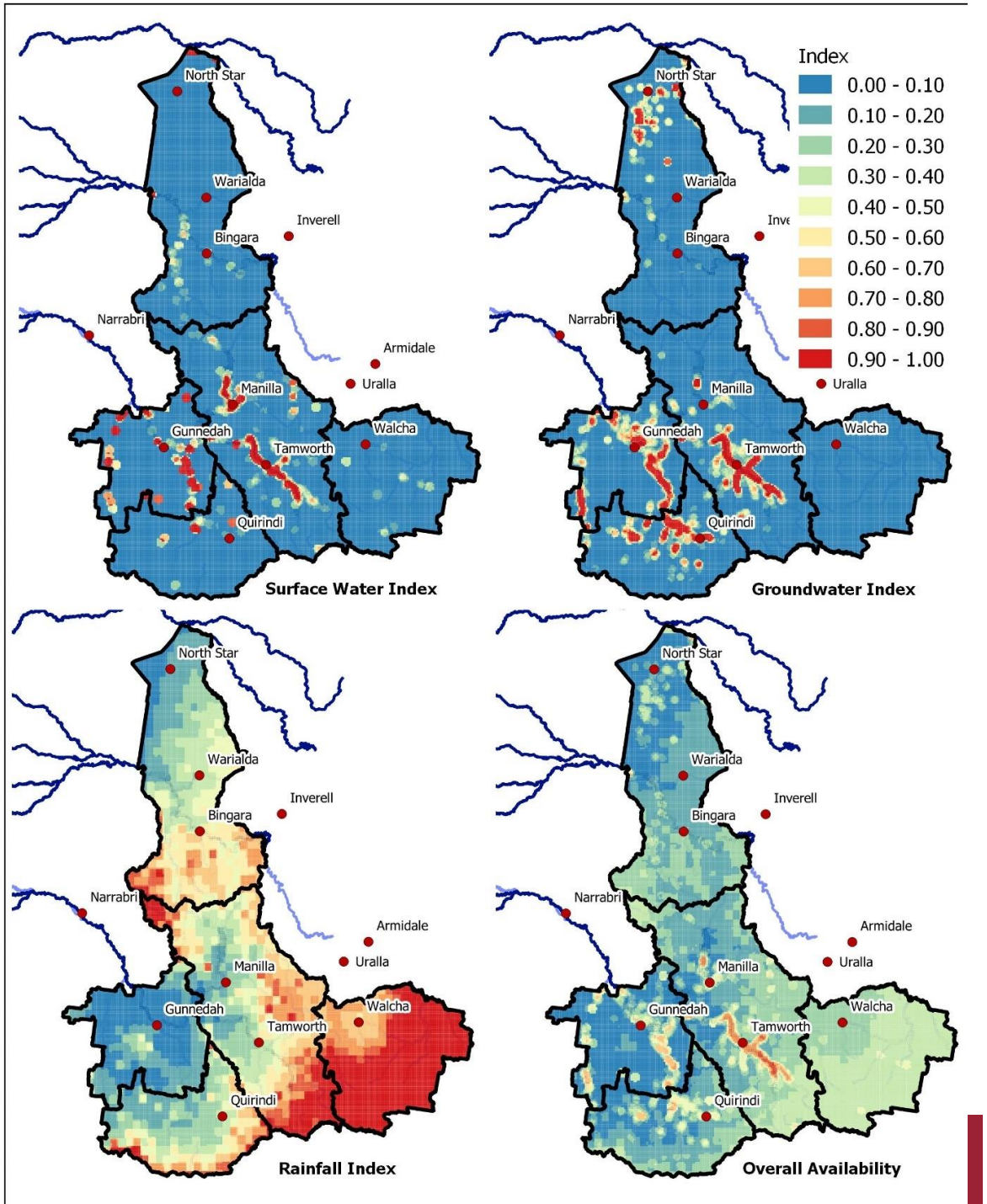
Surface water entitlement

Ground water entitlement



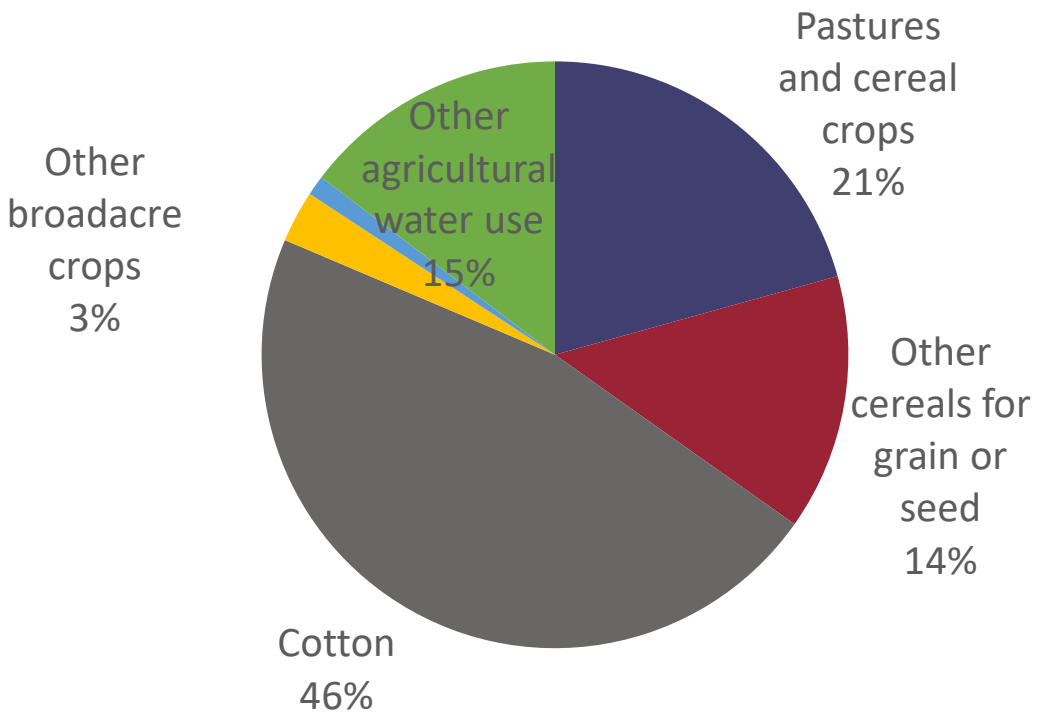
Water Sources

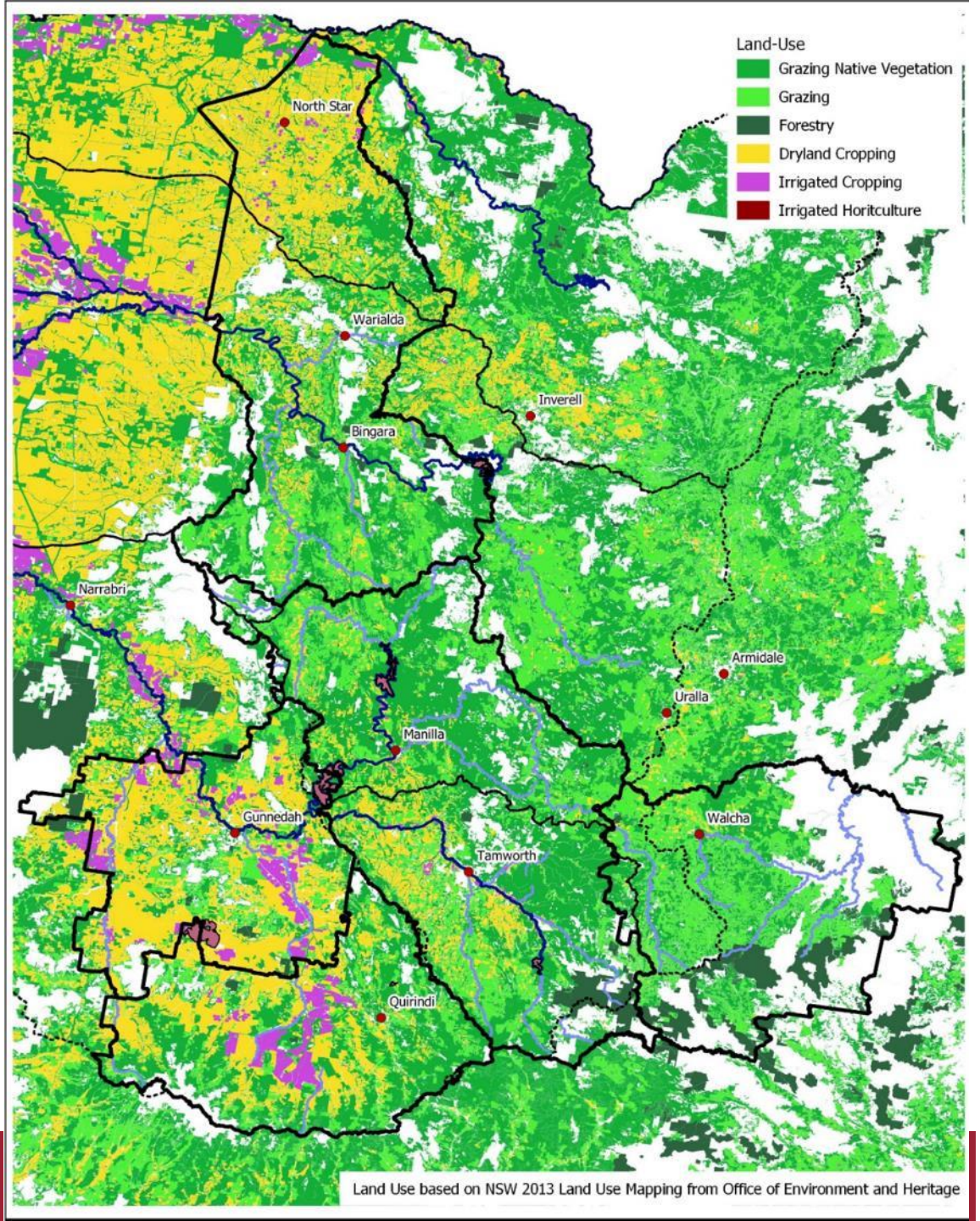
- Water Availability Index
  - Surface/Groundwater (entitlement ML/year)
  - Rainfall – avg annual mm



What is it used for?

- Rural Areas
  - Cotton
  - Grain
  - Grazing





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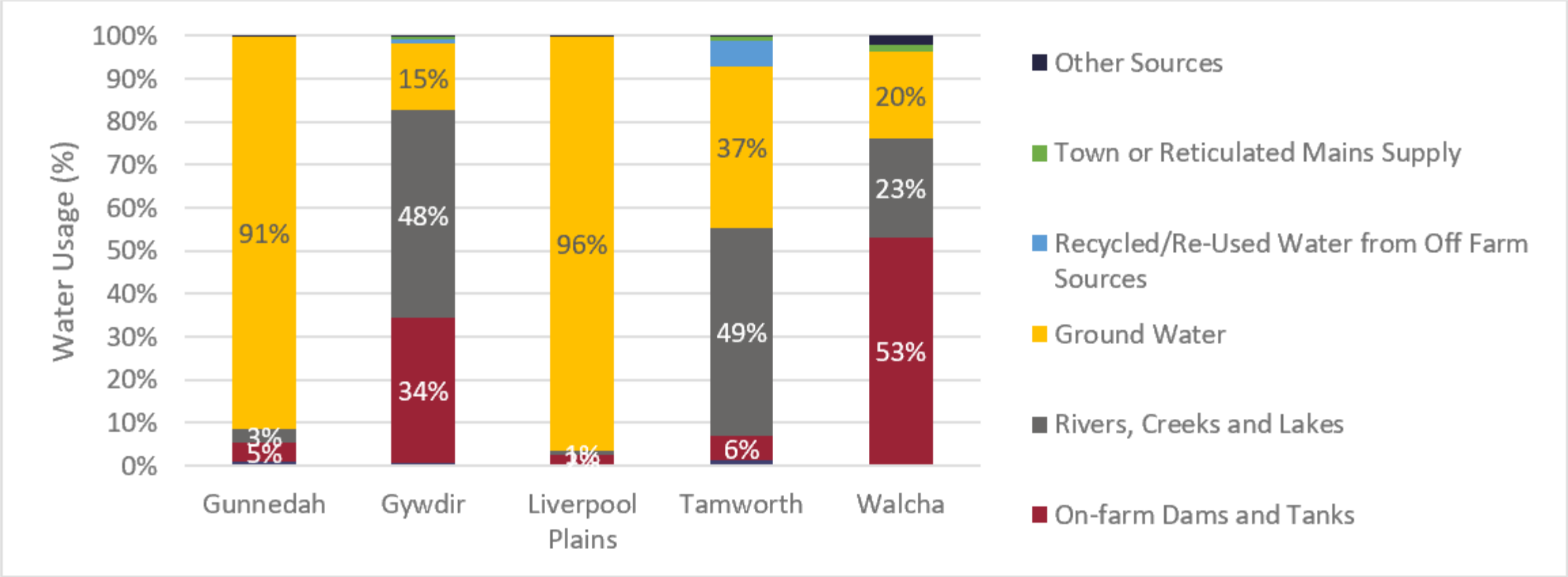
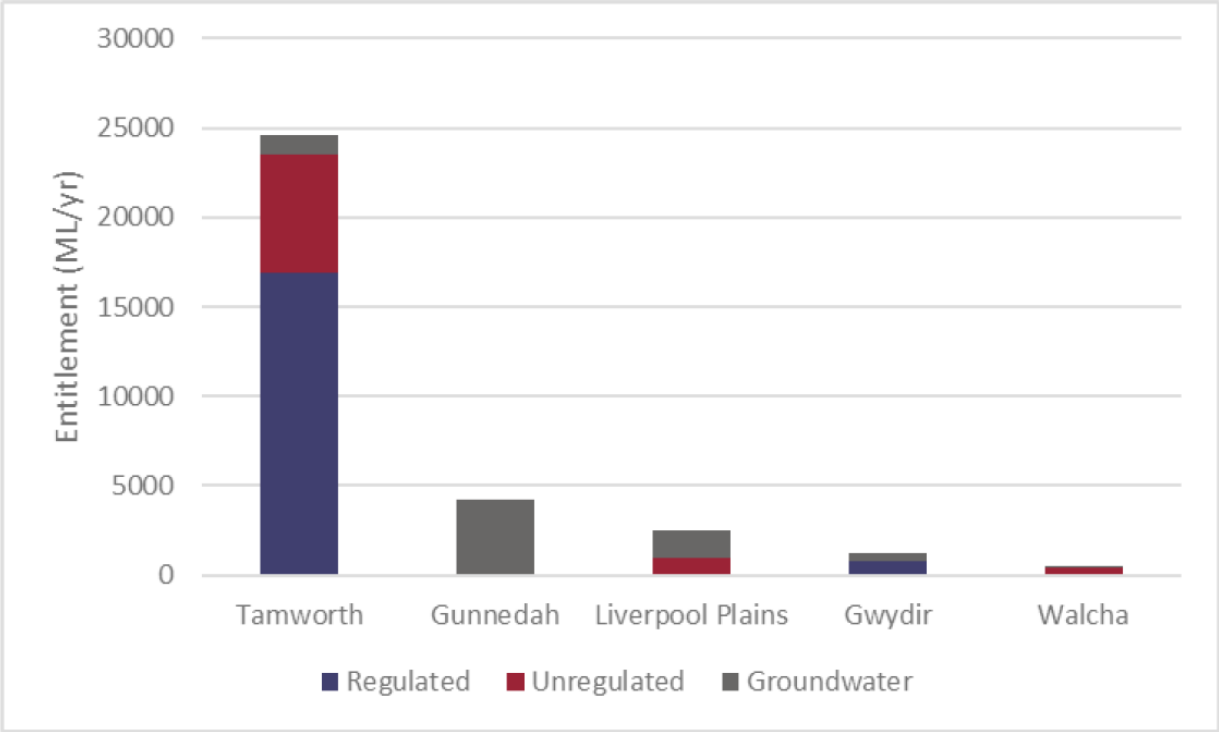
What is it used for?

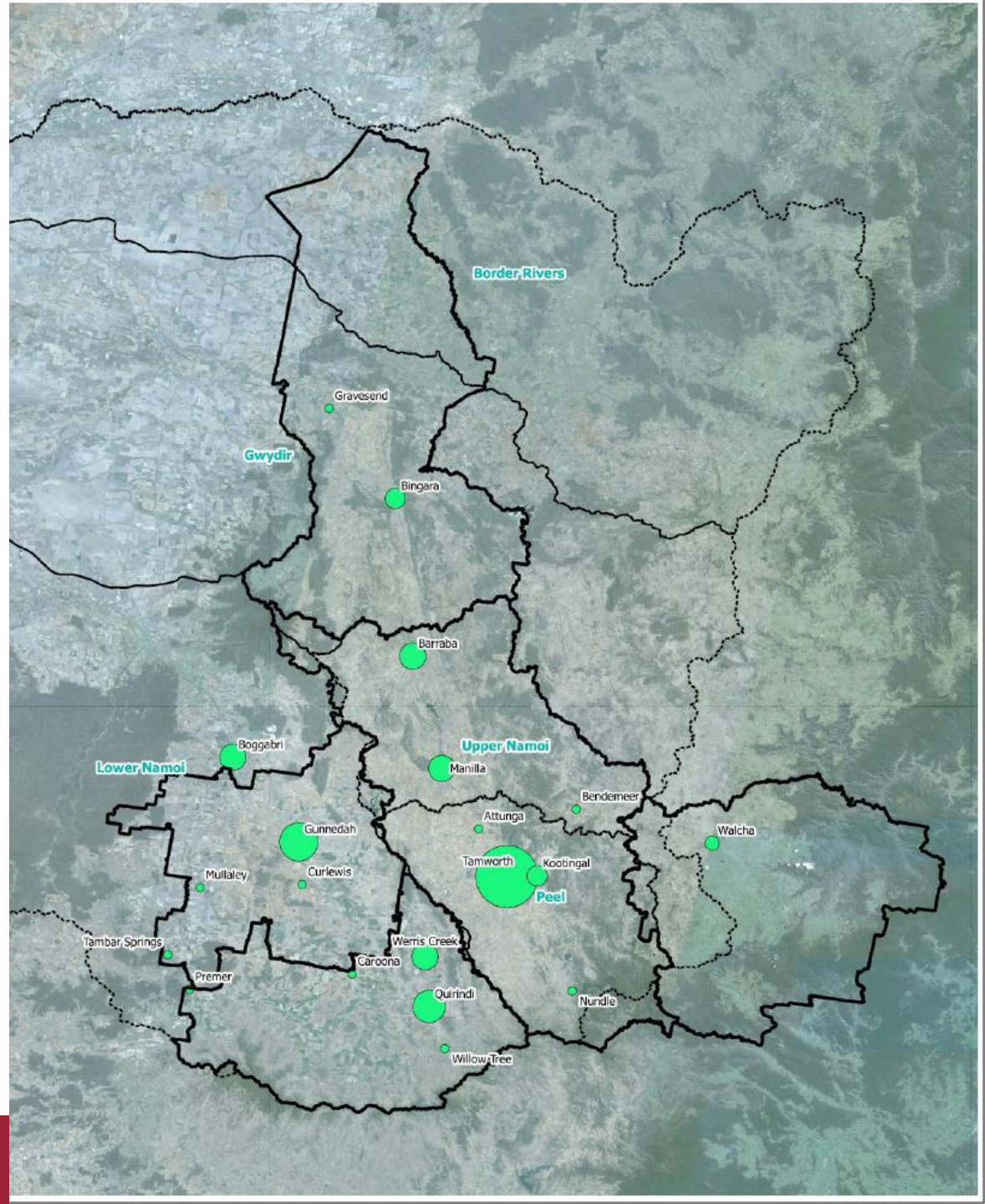
- Agricultural water sources



What is it used for?

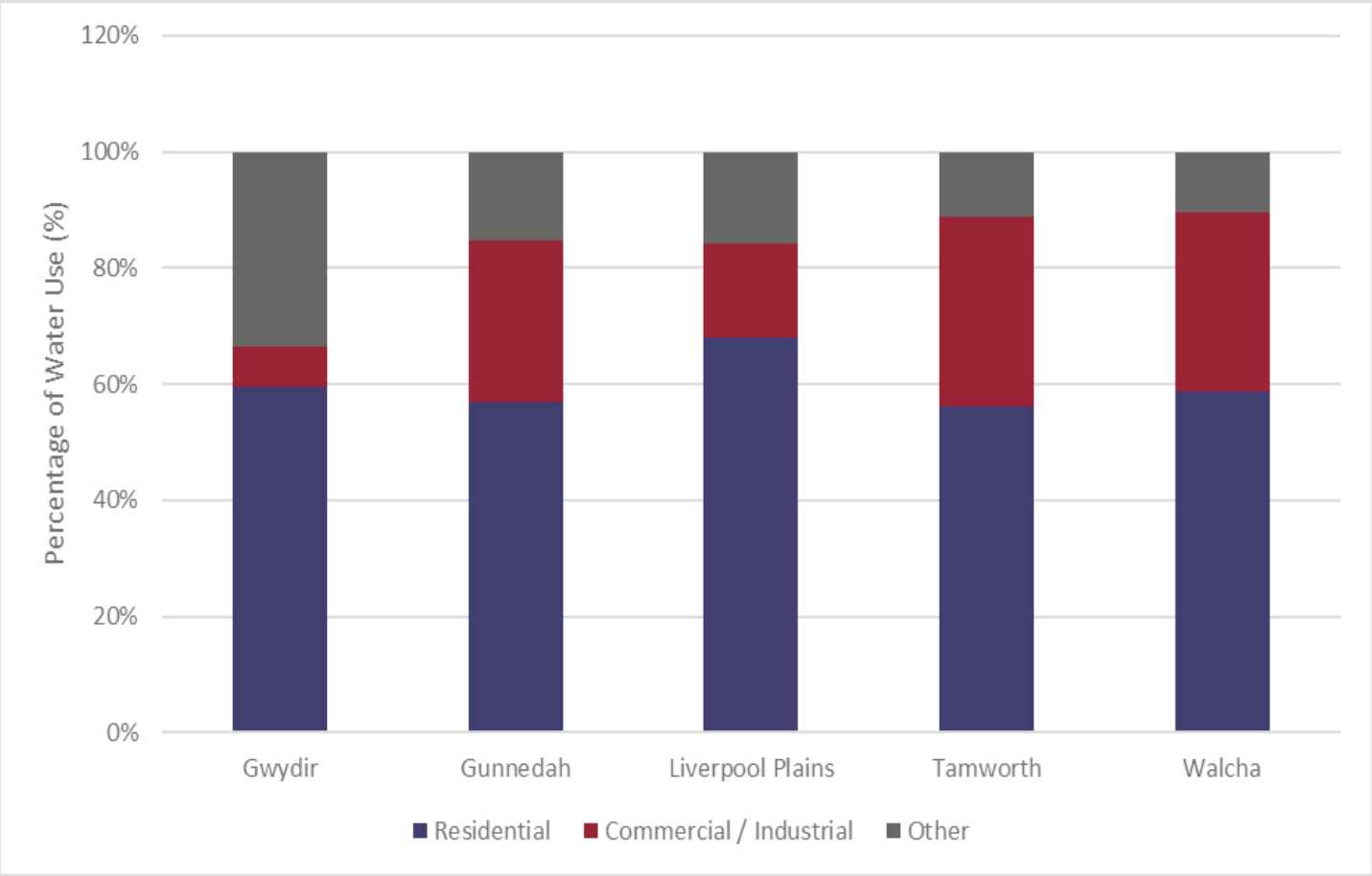
- Urban Areas





How is It used?

- Urban Areas

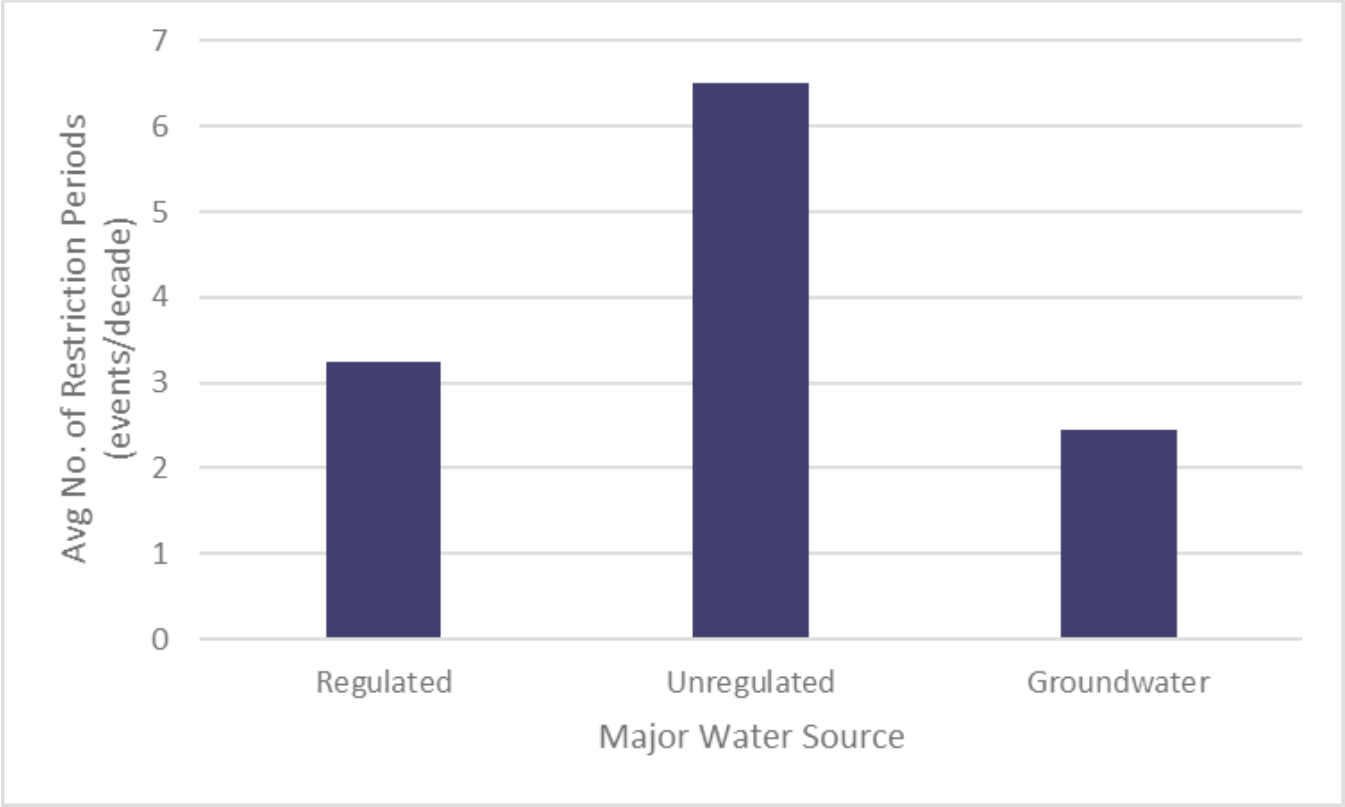


How is It used?

- Urban v Rural

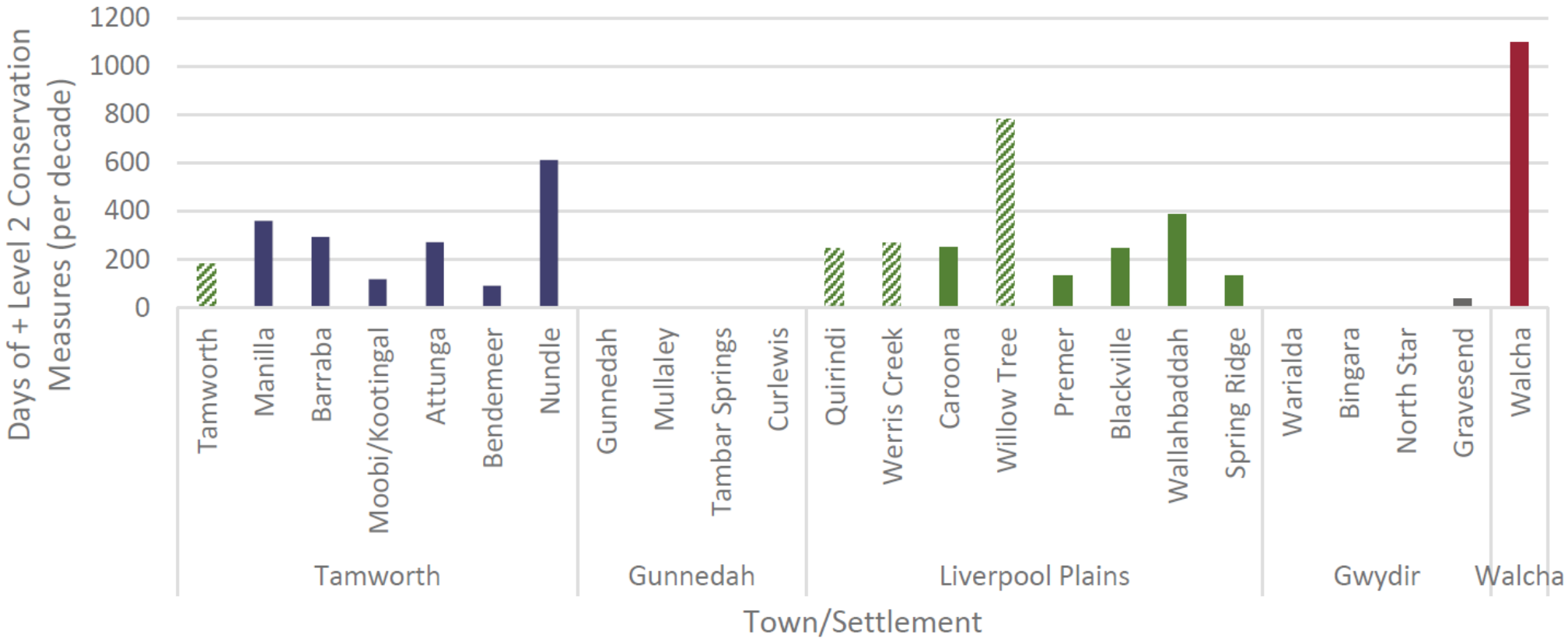
How secure is it?

- Ideally Secure Yield Studies
- Water restrictions
- Frequency of when 100% of entitlement is made available



How secure is it?

- Water restrictions



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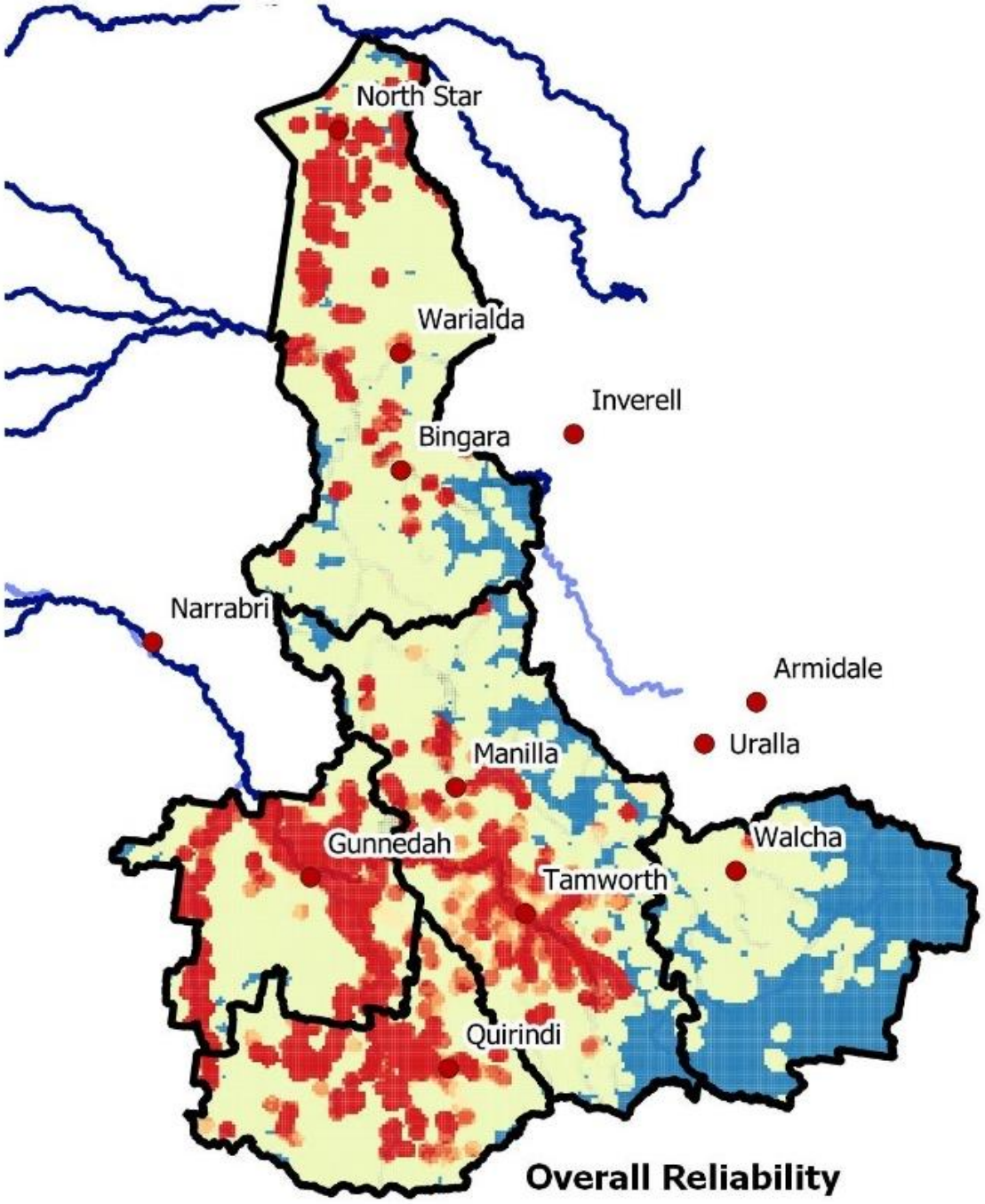
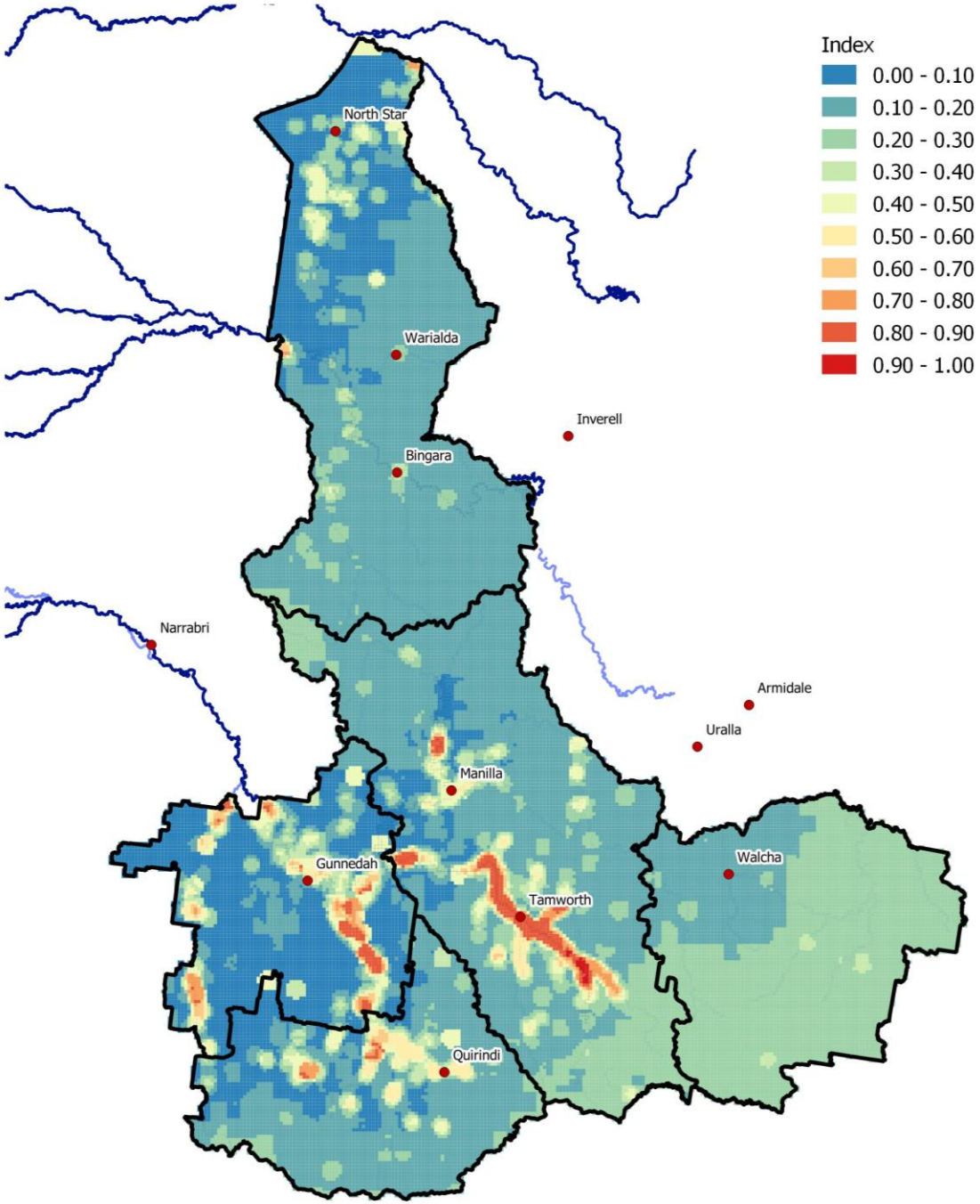
How is it used

- Water reliability index
  - Based on groundwater and surface water security data
  - Provides an overall understanding of water security



Water Strength Index

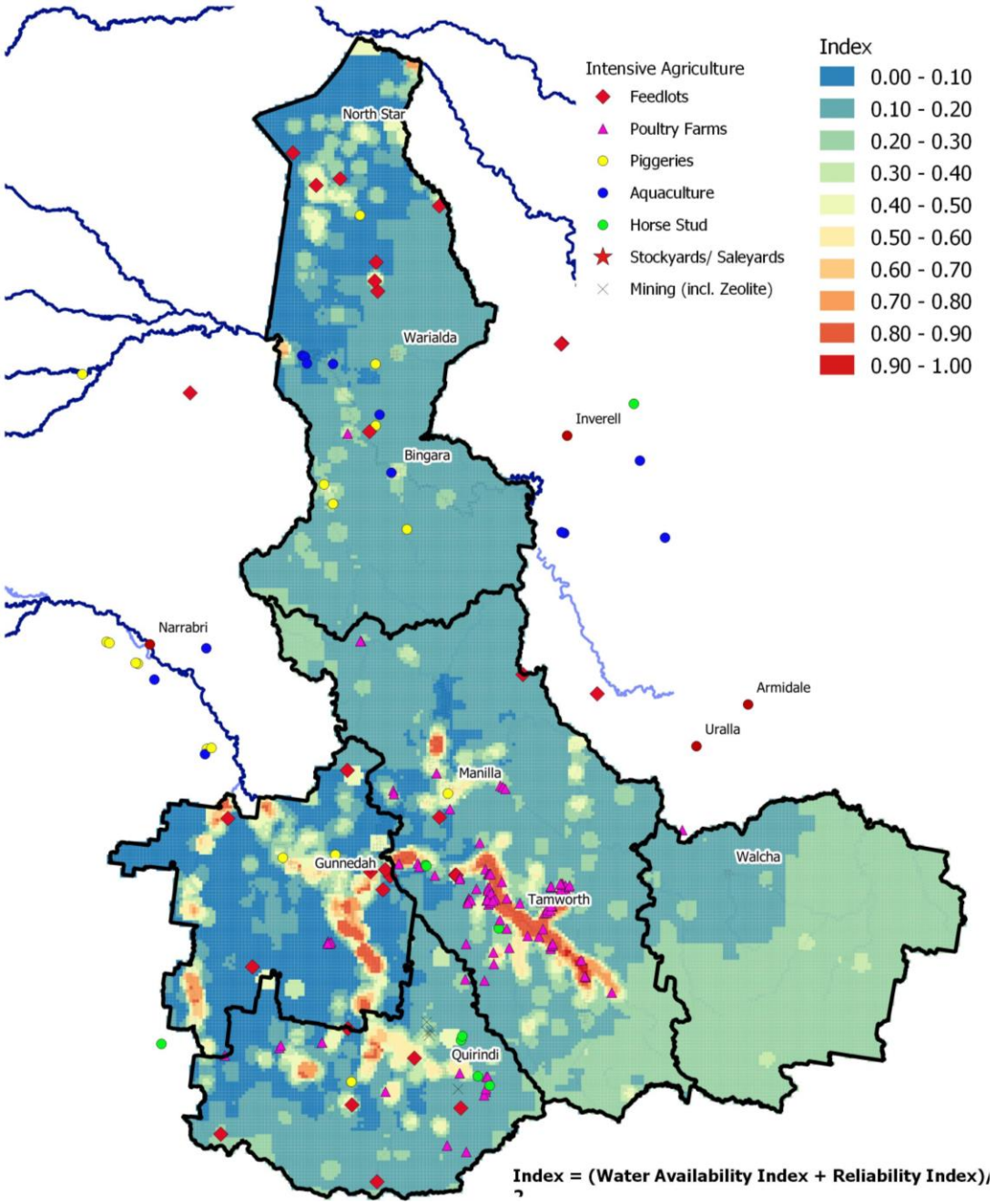
- Combination of water availability and reliability



Index = (Water Availability Index + Reliability Index)/

Opportunities - Planning

- Intensive agriculture
- Agriculture responds to water availability and security, amongst other factors
- Are there synergies of activities undertaken in low water strength areas supporting those in high water strength areas (and visa versa)?



Opportunities – Demand Management

- Residential water demand management
- Commercial and industrial water demand management in urban areas
- Water Recycling – Local Water Utilities

Opportunities – Water Supply

- Shared Water Use Infrastructure
- Addressing transmission losses
- Education initiatives to address market trading constraints

- Large scale, trans-catchment, water supply infrastructure?

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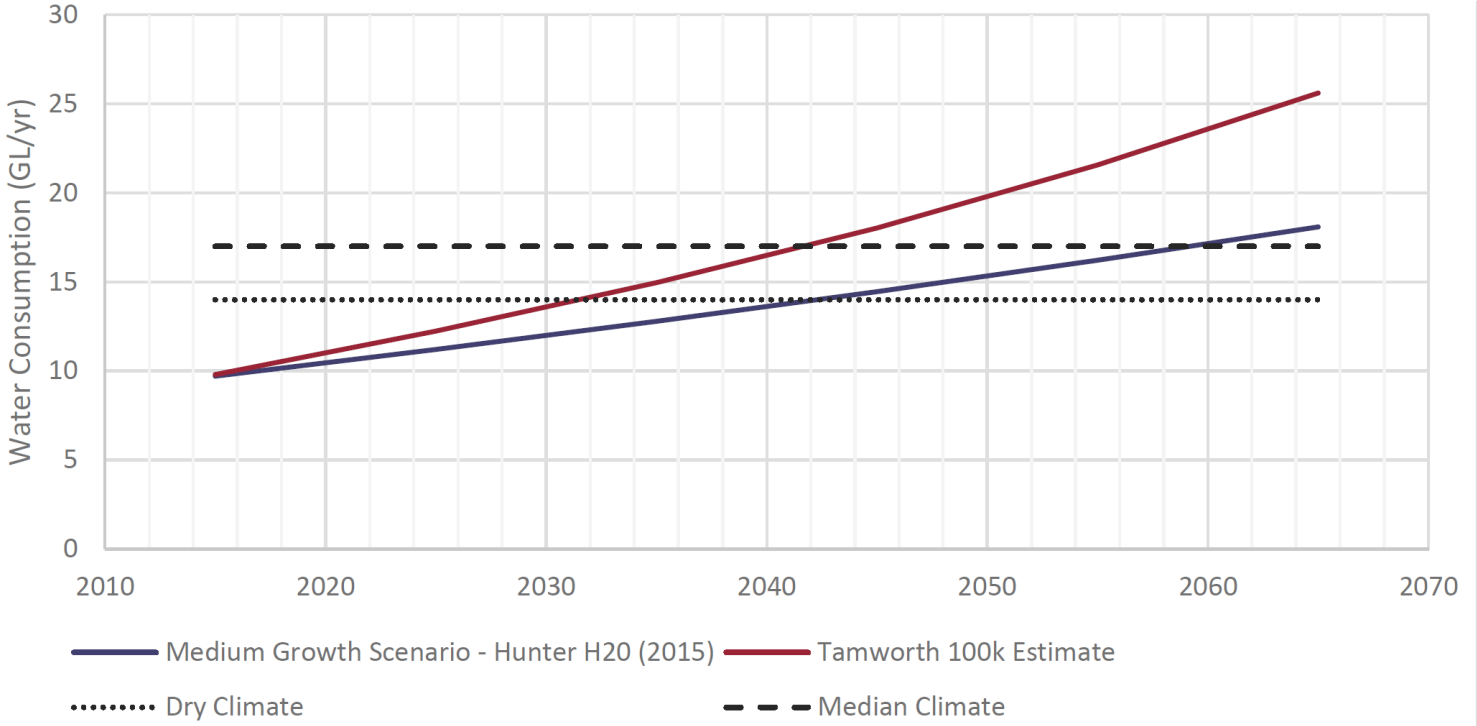
Threats – Availability/Reliability

- Climate Change
- Drought & Prolonged Dry Periods –Historic Planning Impacts
- Urban Growth vs Agricultural Growth
- Groundwater Reliability
- Lack of Buffer Storage
- Lack of Diversity in Urban Water Source dependencies

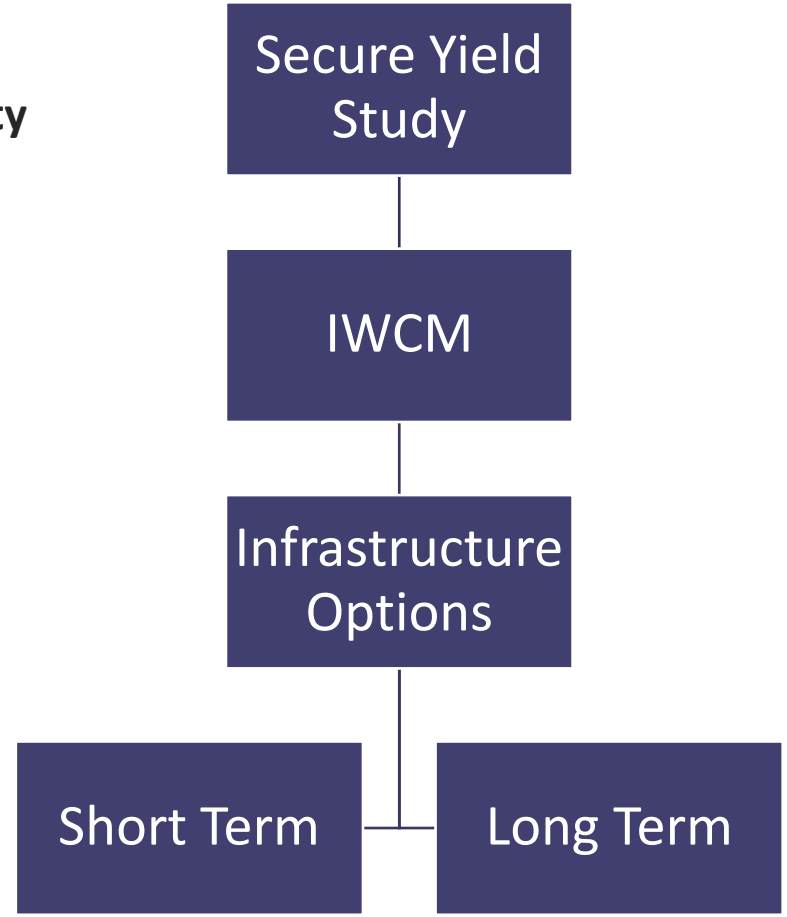
Threats – Demand

- E.g. Residential urban growth of Tamworth
- Industrial expansion of water intensive industry



Initial Recommendations – Infrastructure & Actions

As a region not just a town or city



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engineering | environmental | economics | engagement