Water for the Lockyer – Demand Assessment

Round 1 – Expression of Interest

3 February 2020

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Agenda

1. Jacobs team
2. Summary of Strategic Business Case
3. What is a detailed business case?
4. Demand assessment
5. Contact details

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Summary - Strategic Business Case

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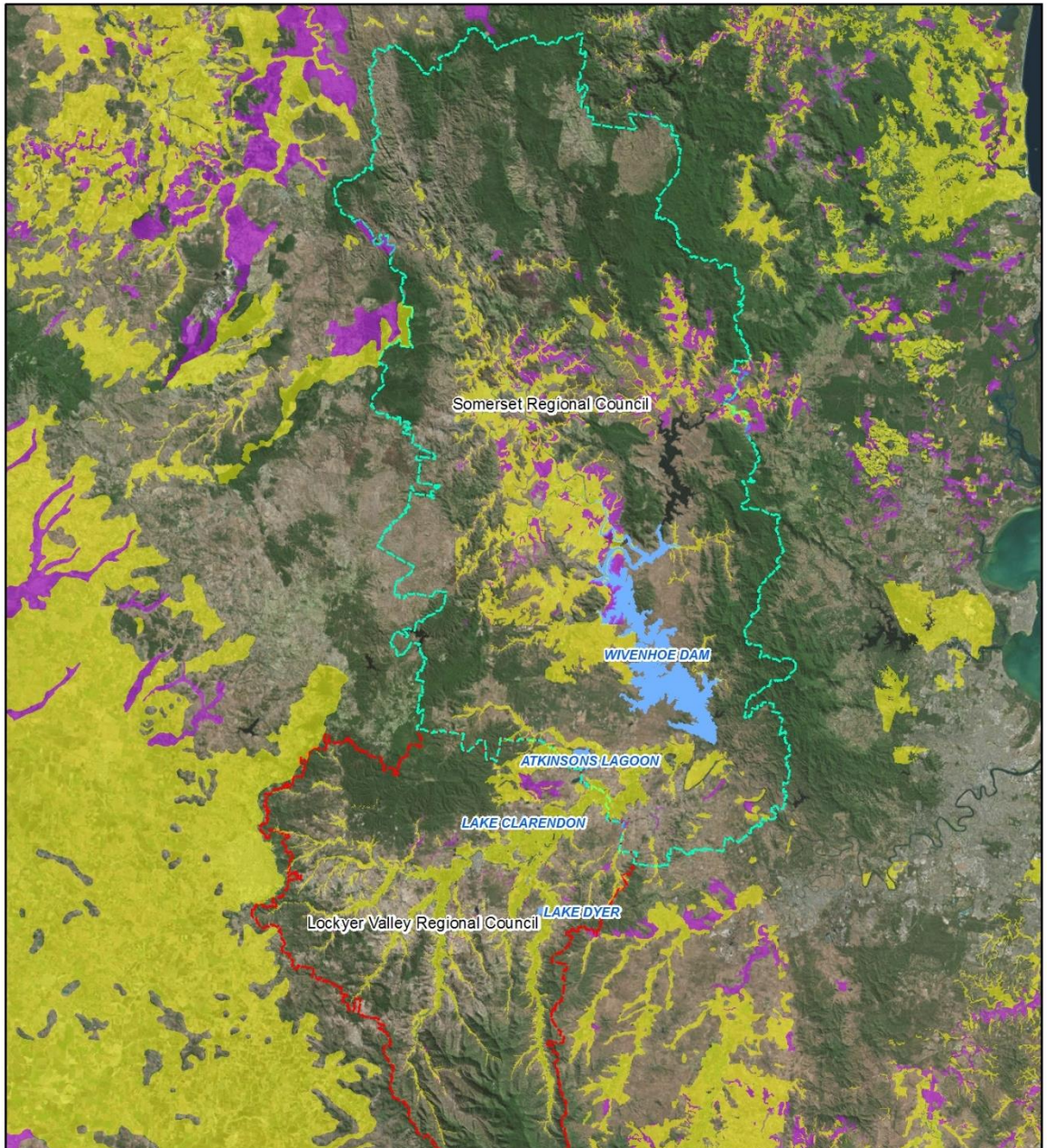
Land suitability is good



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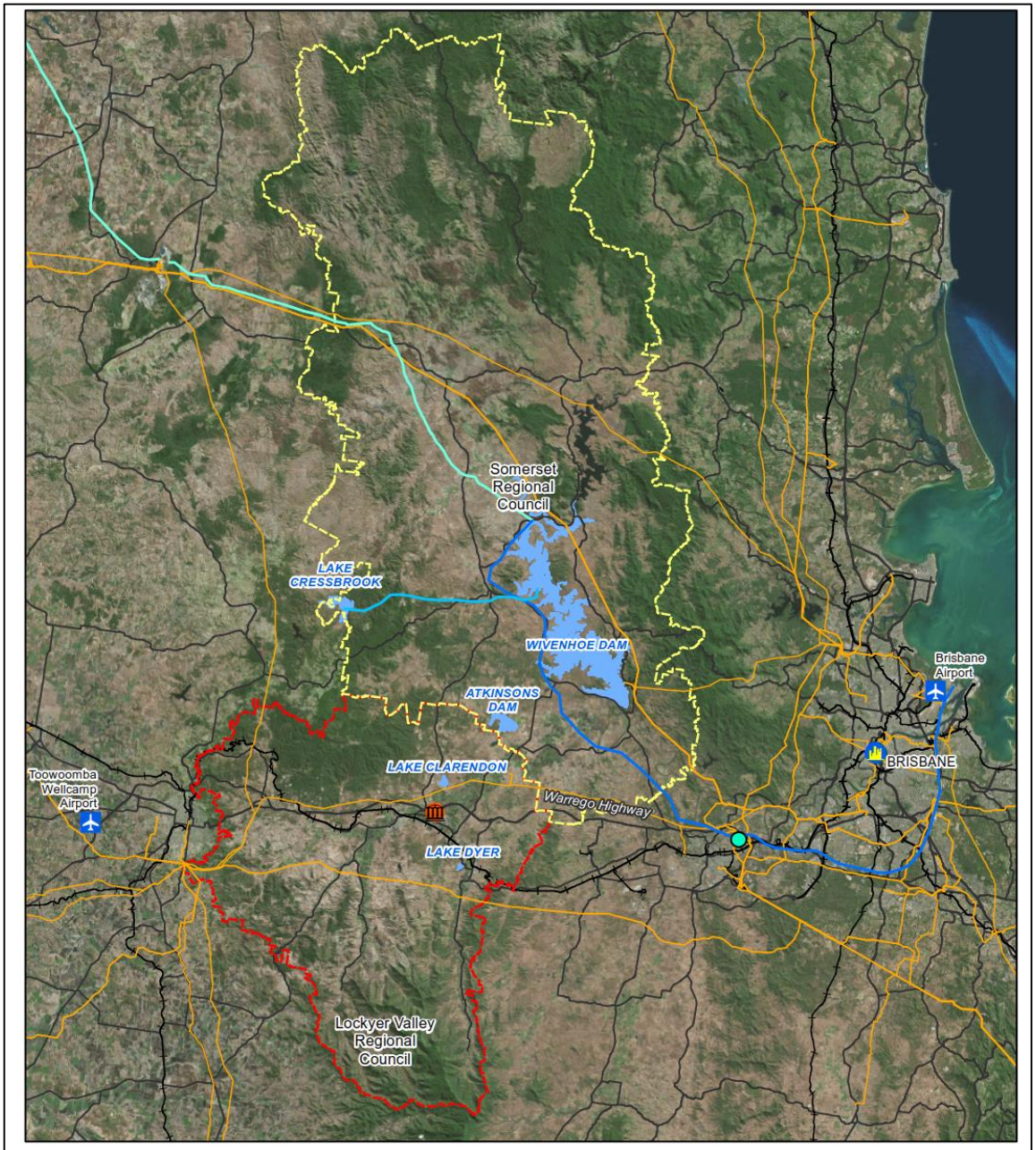
Local infrastructure is good



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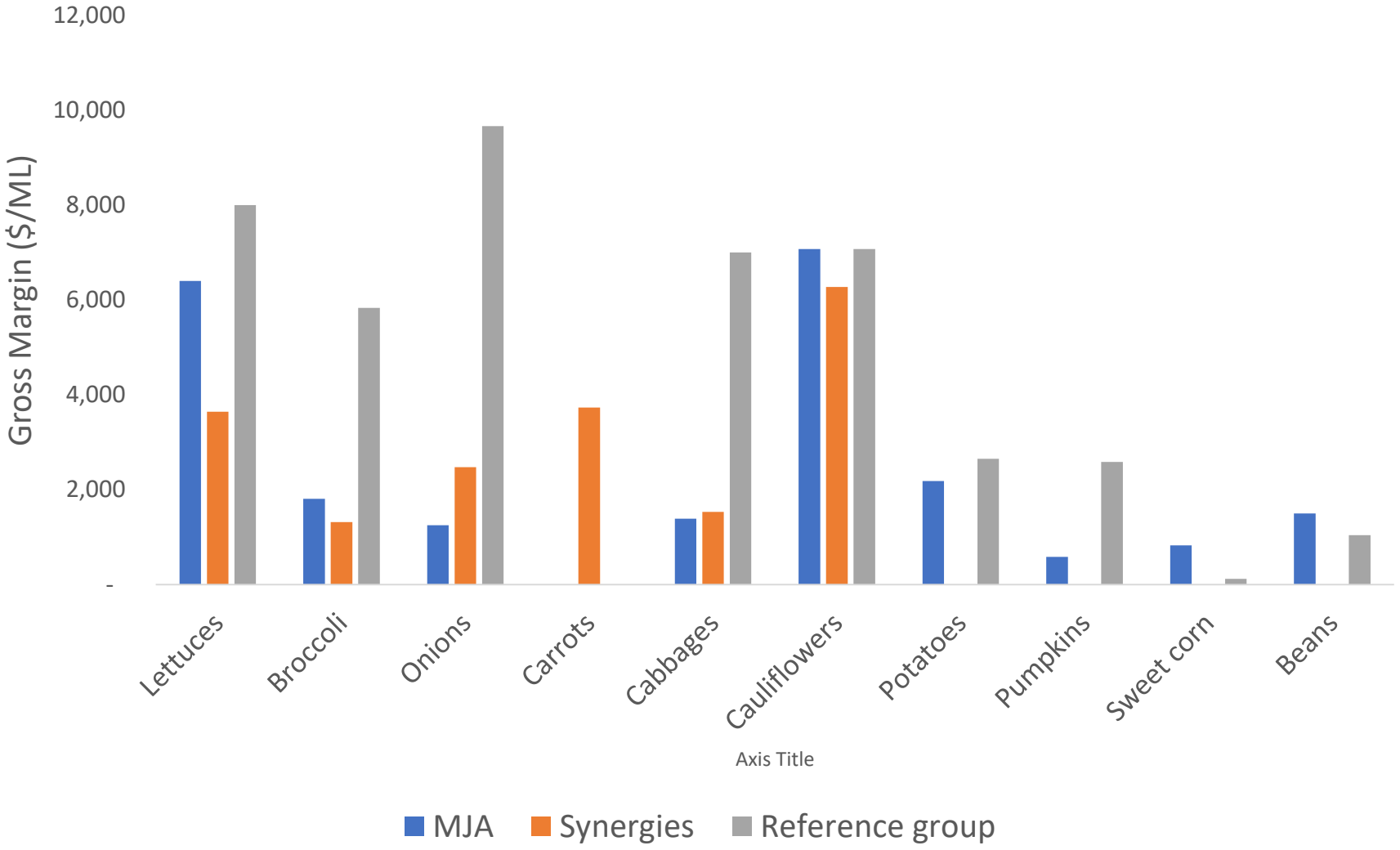
Commercial returns can be strong in the Lockyer



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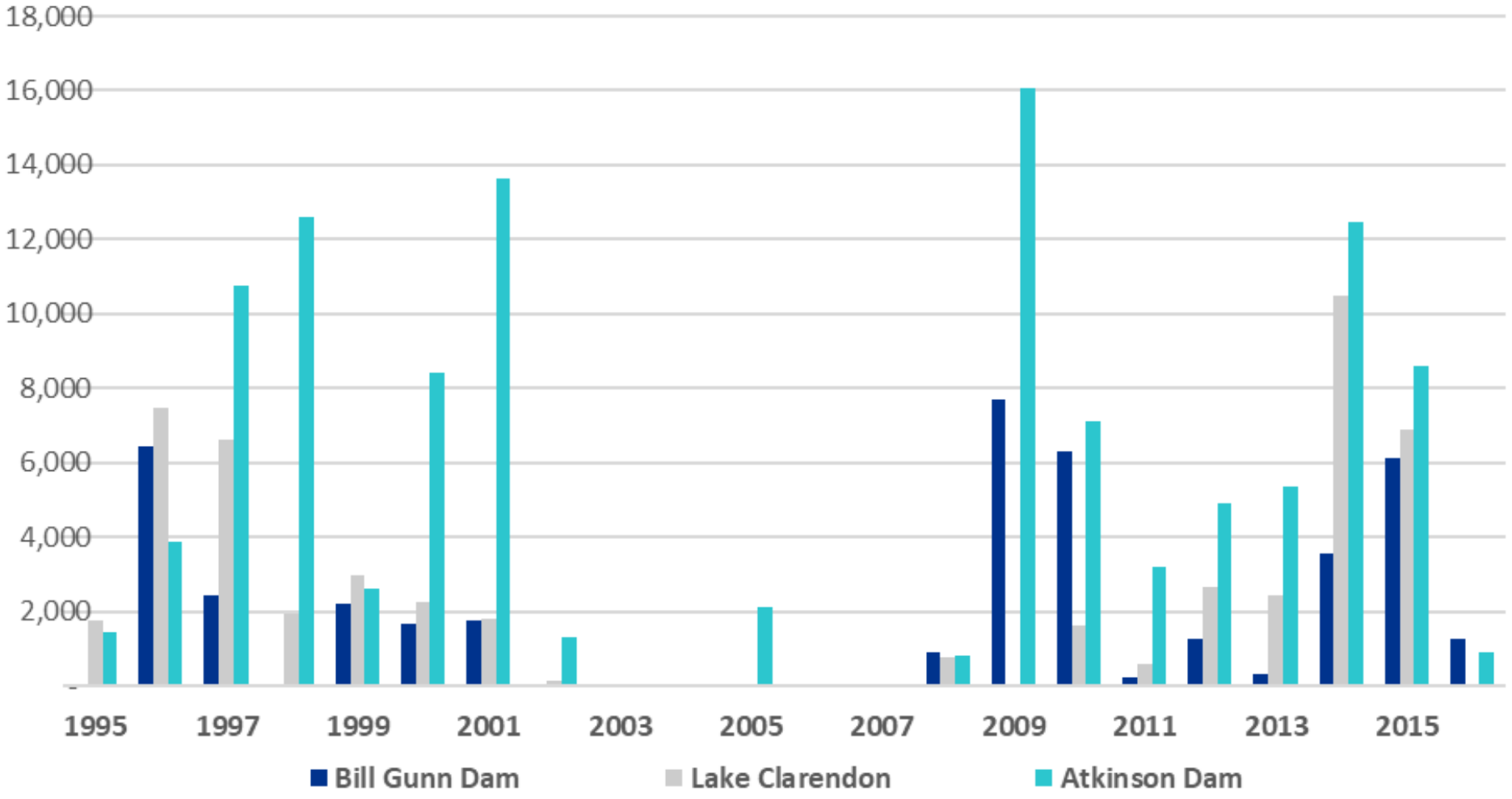
Reliability of existing irrigation assets is low



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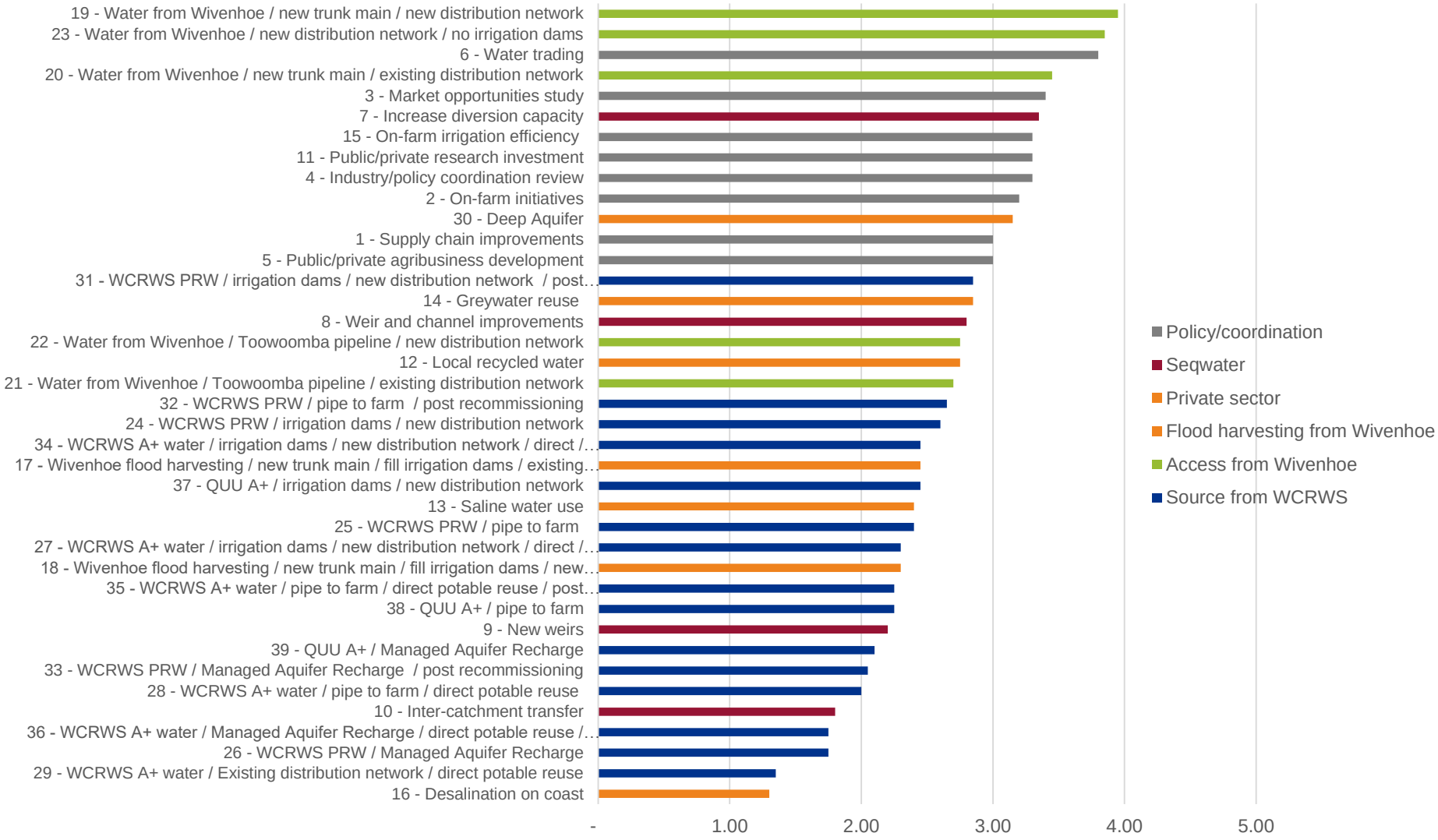
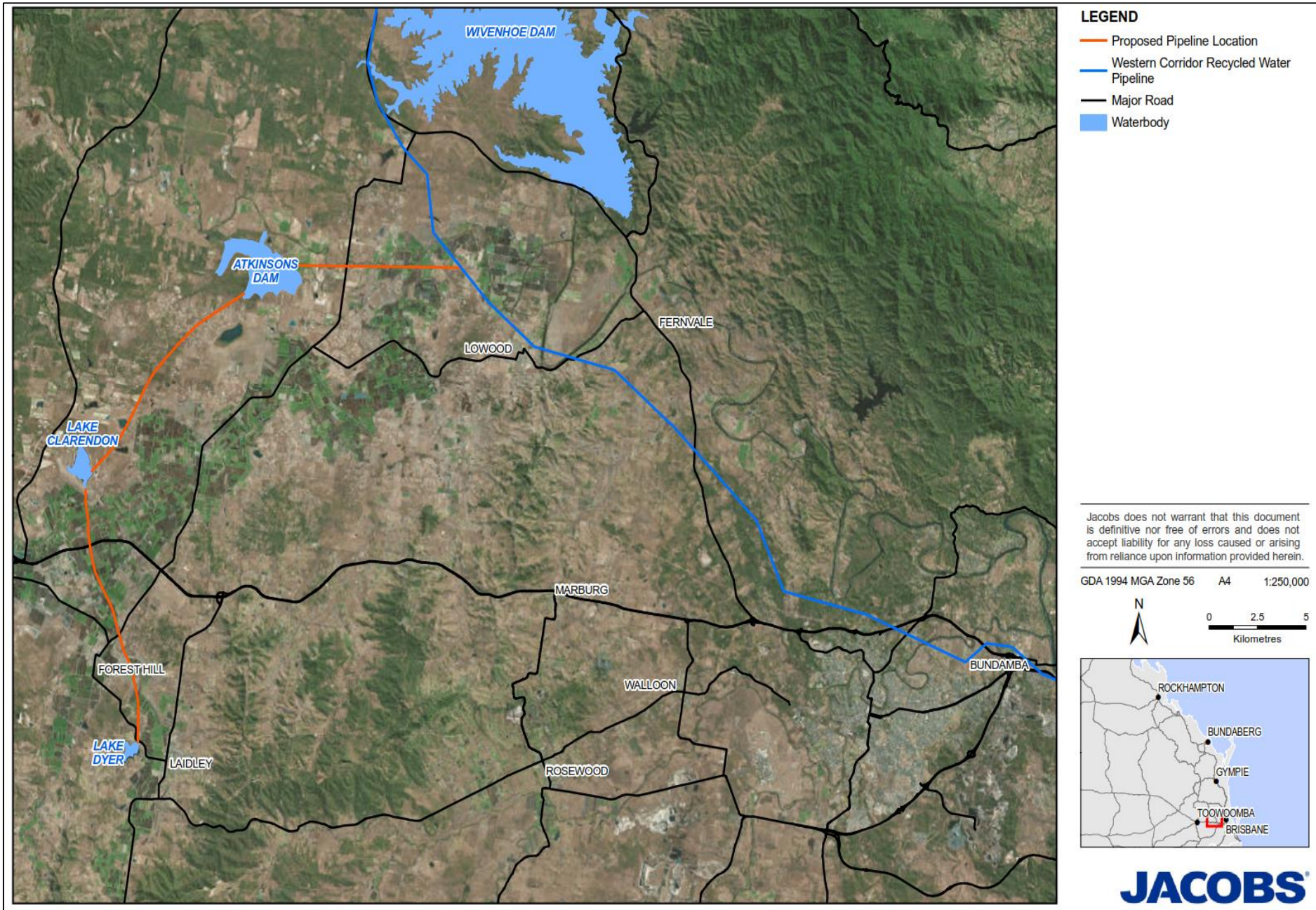
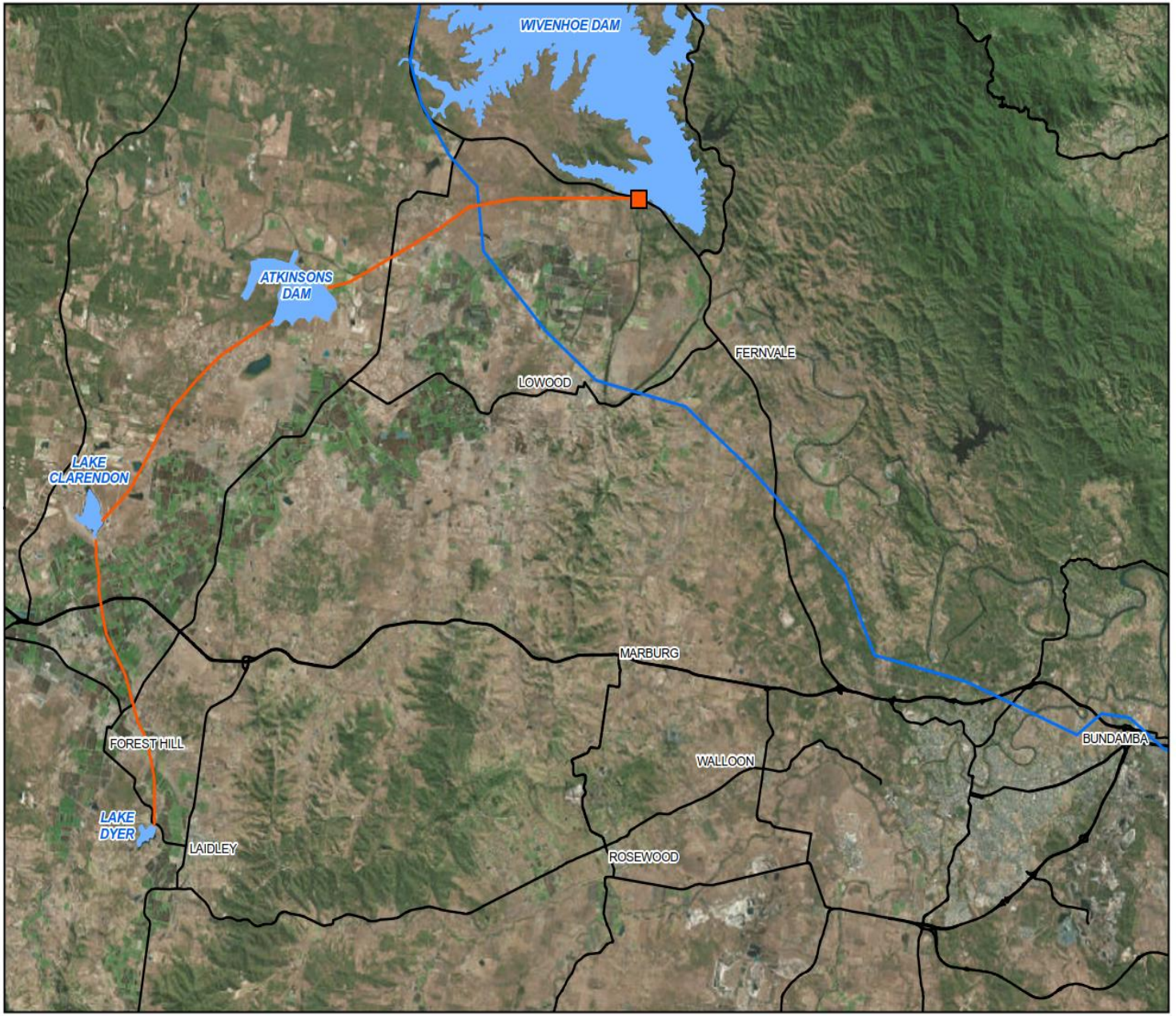
Ranked long list



Option 1 (not recommended) - Water from WCWRS



Option 2 (recommended) - Water from Wivenhoe



Option 2 (reference project) – Sub-options

1. Use existing irrigation dams (Lake Dyer, Lake Clarendon and Atkinson's Dam) linked through new trunk main and new distribution network

2. New trunk main and new distribution network direct to users avoiding existing irrigation dams and instead utilising a fully contained pipeline model.

3. Hybrid: Use some of the irrigation dams and a network to deliver to users

Study steps and timing

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BQ Business Case Development Framework

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Study timing

Activity	Date
Appointment	17 December 2019
Draft Demand Assessment	24 February 2020
Final Demand Assessment	30 March 2020 (or earlier)
Draft Detailed Business Case	22 May 2020
Final Detailed Business Case	30 June 2020

Contents of a detailed business case

Project Phase	Project Inception	Demand Assessment	Project Background	Legal, Social and Environment	Engineering Design and Costs	Finance and Economics	Implementation
STAKEHOLDER ENGAGEMENT	Project Kick-off meeting	Initial discussion with water collaborative Initial discussions with large potential water users	General stakeholder engagement	Site environmental investigations	Site investigations	Discussions with potential customers to confirm water use preferences and likely profitability	Potential investor sounding Construction market sounding
DELIVERABLES	Stakeholder management plan	• Draft and final demand report • Initial pipeline route maps	• Governance • Methodology • Proposal Background • Service Need • Strategic Considerations • Stakeholder Engagement Plan • Base Case • Reference Project/s	• Legal and Regulatory Considerations • Legal advice • Future ownership • Public Interest Considerations • Sustainability Assessment • Social Impact Evaluation • Environmental Assessment	• Preliminary design and pipeline route • Costing report	• Economic Analysis • Benefits Register • Financial and Commercial Analysis • Public Sector Comparator • Affordability Analysis • Risk Register	• Recommendations • Conclusions • Implementation Plan • Delivery Model Analysis • Market Considerations

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Demand Assessment

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Demand Assessment – Three key steps

- Round 1: Expression of Interest (EOI) (non-binding)
  - Happening now
- Round 2: Letter of Intent (LOI) (non-binding)
  - Will occur during DBC (April/May 2020)
- Round 3: Water sales (binding)
  - Post DBC (late 2020 or in 2021 – assuming project proceeds)

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Why Round 1: EOI is important

1. Demand assessment will determine whether the project proceeds to a detailed business case (DBC).
2. Customers must demonstrate strong demand for water:
   - Willingness to pay the scheme's operating costs (annual charges)
   - Upfront customer capital contributions (once).
3. Will consider Government grant funding and loans
   - Up to 50% Federal funding
   - Up to 20% state funding.

Product and price details

Is water tradeable (and separate to land)?	• Yes (temporary and permanent transfers possible. • Scheme will have moderate capacity to trade. • Not excessive trading capacity (keeps costs affordable).
Is it an asset I can borrow against?	• Yes (will be able to borrow) • Customers will own a share of scheme (e.g. based on $ contribution to capital costs)
What is the reliability?	• Medium supply security • Approximately 70% long-term reliability in SBC • Subject to change (next slide)
What are the water charges?	• Customer capital contribution (one-off and upfront / to attract government support) • Annual charges (next slides)
What is the pipeline pressure?	• Will work it out with Round 1 responses • DBC will inform Round 2 demand assessment in April 2020

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Product reliability (subject to change)

- Strategic business case assumed water only provided to irrigators when WCWRS not in use (two forecasts)

Forecast 1: 100-year rainfall record	**2020**	**2030**	**2050**
Probability of turning on the WCWRS	6%	12%	20%
Long-term product reliability	94%	88%	80%

Forecast 2: Increased rainfall variability (a negative scenario)	**2020**	**2030**	**2050**
Probability of turning on the WCWRS	19%	32%	44%
Long-term product reliability	81%	68%	56%

- Strategic business case assumed 70% long-term reliability as per Expression of Interest Form
- More work to do in DBC – now that Seqwater may keep the WCRWS on (once it is turned on).

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Round 1: Capital cost range and capital contributions

Scenario	Capital cost of project ($ million)	Volume of water product (ML)	Full capital cost assuming zero government funding ($/ML)	Customer cost with 50% government funding ($/ML)
Very high	250	50,000	5,000	**2,500**
High	200	50,000	4,000	**2,000**
Medium	150	50,000	3,000	**1,500**
Low	125	50,000	2,500	**1,250**
Very low	100	50,000	2,000	**1,000**

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Round 1: Water prices ($/ML) (subject to change)

Tariff component	$/ML	$/ML	$/ML	$/ML	$/ML
One-off upfront capital contribution	1,000	2,000	3,000	4,000	5,000
Annual water charges	$/ML	$/ML	$/ML	$/ML	$/ML
Fixed charge	280	330	400	450	520
Variable charge	30	50	70	100	120
Total	**310**	**380**	**470**	**550**	**640**

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EOI form

1. Do you irrigate and what is your typical annual water use volume in ML by source (ground or surface water)?

2. Please provide a brief overview of your current water using enterprises (e.g. carrots, cherry tomatoes, green leafy vegetables, turf grower, protected cropping, specific tree crops, pack house, gravel processing, other).

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EOI form

Q3: What volume of water would you buy at **$1,000/ML** (upfront capital charge) and an annual charge of **$310/ML**?

Description of location (e.g. Street address or CA number)	Minimum volume (ML)	Likely volume (ML)	Maximum volume (ML)
Examples: 470 Atkinson Dam Rd / CA 10,000 England Cavendish	20 ML	500 ML	1,000 ML
Your total demand (ML)			

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EOI form

Q4: Reasons for your response?

- What purpose would you use the water for?
- Enterprises to estimate project economic benefits.
- Be specific (e.g. carrots, cherry tomatoes, green leafy vegetables, Wintergreen or Buffalo turf, protected cropping, specific tree crops, pack house, gravel processing, other).

EOI form

Q5: What volume of water would you buy at **$2,000/ML** (upfront capital charge) and an annual charge of **$380/ML?**

Description of location (e.g. Street address or CA number)	Minimum volume (ML)	Likely volume (ML)	Maximum volume (ML)
Examples: 470 Atkinson Dam Rd / CA 10,000 England Cavendish	20 ML	500 ML	1,000 ML
Your total demand (ML)			

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Goals of Round 1 Demand assessment

- Demand of around 50,000 ML for Lockyer Valley
- Learn the location of demand / use of water
- Design pipeline route
- Develop an affordable scheme
- Drive down opex (include renewables in capital costs)
- Meaningful / fair customer capital contribution
- Attract government support (e.g. grants / low interest loans).

Customer capital contribution at different prices

- Round 1 data needed
- Preliminary engineering design / costs if DBC proceeds
- Round 2 prices are uncertain and subject to change
- But the following may interest potential customers

Customer capital contribution scenarios	Price ($/ML)	1,000	1,250	1,500	1,750	2,000
Low volume (ML)	30,000	$30M	$38M	$45M	$53M	$60M
Medium volume (ML)	40,000	$40M	$50M	$60M	$70M	$80M
High volume (ML)	50,000	$50M	$63M	$75M	$88M	$100M

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Capital Cost Ceiling - Summary

Medium government funding 50,000ML of demand	Private sector / customers ($ million)	Government / other ($ million)	Capex target - Total Capital Cost ($ million)
Option 1: $1,000/ML	50	50	**100**
Option 2: $1,250/ML	63	63	**125**
Option 3: $1,500/ML	75	75	**150**
Option 4: $1,750/ML	88	88	**175**
Option 5: $2,000/ML	100	100	**200**

- Cardno estimated $125 million
- Jacobs strategic business case estimated $200 million
- Extensive work to be completed after Round 1 EOI.

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Next steps

- Please complete and sign the above form ASAP
- Due back **Sunday 16 February 2020**, please.

For further discussion or questions

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